Received by OCD: 8/2/2024 11:01:04 AM

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

Sundry Print Report

08/02/2024

Well Name: POKER LAKE UNIT 20 DTD

Well Location: T24S / R30E / SEC 20 / NWNE / 32.207598 / -103.901295

County or Parish/State: EDDY / NM

Well Number: 324H

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: 2781346

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/24/2024

Time Sundry Submitted: 03:51

Date proposed operation will begin: 07/01/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, proposed total depth. FROM: TO: SHL: 1027' FNL & 1981' FEL of Section 20-T24S-R30E 877' FNL & 1982' FEL of Section 20-T24S-R30E FTP: 100' FSL & 1870' FEL of Section 17-T24S-R30E 100' FNL & 1391' FEL of Section 20-T24S-R30E LTP: 330' FNL & 1870' FEL of Section 32-T23S-R30E 2330' FSL & 1393' FEL of Section 5-T24S-R30E BHL: 200' FNL & 1870' FEL of Section 32-T23S-R30E 2430' FSL & 1393' FEL of Section 5-T25S-R30E Proposed total depth will change from 32179’ MD; 10968’ TVD (Wolfcamp) to 28999’ MD; TVD 11009’ (Wolfcamp). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

NOI Attachments

Procedure Description

PLU_20_DTD_324H_BLM_APD_Change_Sundry_attachments_20240324155047.pdf

Released to Imaging: 8/7/2024 9:31:07 AM

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Conditions of Approval

Additional

Sec_20_24S_30E_NMP_Sundry_2781346_Poker_Lake_Unit_20_DTD_324H_COAs_20240408100515.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: RICHARD REDUS

Signed on: MAR 27, 2024 07:48 PM

Name: XTO PERMIAN OPERATING LLC

Title: Permitting Manager

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING **State:** TX

Phone: (720) 539-1673

Email address: RICHARD.L.REDUS@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 08/01/2024

Signature: Chris Walls

Released to Imaging: 8/7/2024 9:31:07 AM

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

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

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

Additional Information

Additional Remarks

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

Location of Well

0. SHL: NWNE / 1027 FNL / 1981 FEL / TWSP: 24S / RANGE: 30E / SECTION: 20 / LAT: 32.207598 / LONG: -103.901295 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 330 FSL / 1870 FEL / TWSP: 24S / RANGE: 30E / SECTION: 8 / LAT: 32.22541 / LONG: -103.90093 (TVD: 10968 feet, MD: 16700 feet)

PPP: SWSE / 100 FSL / 1870 FEL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.210697 / LONG: -103.900928 (TVD: 10968 feet, MD: 11400 feet)

PPP: SWSE / 330 FSL / 1870 FEL / TWSP: 24S / RANGE: 30E / SECTION: 5 / LAT: 32.24 / LONG: -103.90093 (TVD: 10968 feet, MD: 22000 feet)

BHL: NWNE / 200 FNL / 1870 FEL / TWSP: 23S / RANGE: 30E / SECTION: 32 / LAT: 32.268052 / LONG: -103.900935 (TVD: 10968 feet, MD: 32179 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 20 324H
LOCATION:	Sec 20-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781346** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 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 intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
    c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
    d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear

chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.
f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. **DRILLING MUD:** Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. **WASTE MATERIAL AND FLUIDS:** All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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

[x] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] APD ID Number	[2] Pool Code	[3] Pool Name
10400089184	98220	Purple Sage; Wolfcamp (Gas)

[4] Property Code	[5] Property Name	[6] Well Number
	POKER LAKE UNIT 20 DTD	324H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373075	XTO PERMIAN OPERATING, LLC	3,266'

[10] Surface Location

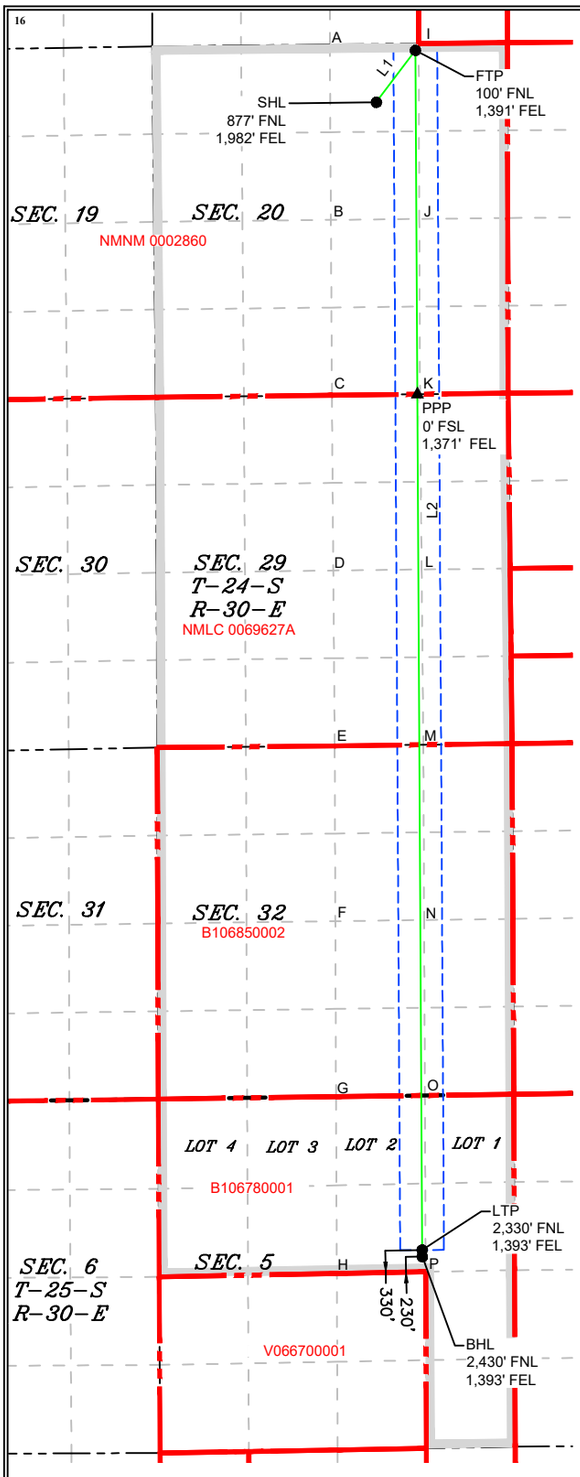
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	20	24S	30E		877	NORTH	1,982	EAST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	25S	30E		2,430	NORTH	1,393	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
2,321.00			

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.



LEGEND

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

LOT ACREAGE TABLE

SECTION 5
T-25-S R-30-E
LOT 1 = 39.84 ACRES
LOT 2 = 40.11 ACRES
LOT 3 = 40.39 ACRES
LOT 4 = 40.66 ACRES

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	036°59'46"	980.33'
L2	179°40'34"	18,191.97'

COORDINATE TABLE

SHL (NAD 83 NME)	SHL (NAD 27 NME)
Y = 439,676.7 N	Y = 439,617.4 N
X = 674,960.6 E	X = 633,776.9 E
LAT. = 32.208010 °N	LAT. = 32.207886 °N
LONG. = 103.901298 °W	LONG. = 103.900811 °W

FTP (NAD 83 NME)	FTP (NAD 27 NME)
Y = 440,459.7 N	Y = 440,400.4 N
X = 675,550.5 E	X = 634,366.8 E
LAT. = 32.210156 °N	LAT. = 32.210031 °N
LONG. = 103.899380 °W	LONG. = 103.898893 °W

PPP (NAD 83 NME)	PPP (NAD 27 NME)
Y = 435,272.4 N	Y = 435,213.2 N
X = 675,579.9 E	X = 634,396.0 E
LAT. = 32.195896 °N	LAT. = 32.195772 °N
LONG. = 103.899353 °W	LONG. = 103.898867 °W

LTP (NAD 83 NME)	LTP (NAD 27 NME)
Y = 422,368.0 N	Y = 422,309.2 N
X = 675,652.8 E	X = 634,468.6 E
LAT. = 32.160423 °N	LAT. = 32.160299 °N
LONG. = 103.899286 °W	LONG. = 103.898801 °W

BHL (NAD 83 NME)	BHL (NAD 27 NME)
Y = 422,268.0 N	Y = 422,209.2 N
X = 675,653.4 E	X = 634,469.1 E
LAT. = 32.160148 °N	LAT. = 32.160024 °N
LONG. = 103.899285 °W	LONG. = 103.898800 °W

CORNER COORDINATES (NAD 83 NME)

A - Y = 440,546.3 N		A - X = 674,262.0 E	
B - Y = 437,901.7 N		B - X = 674,277.4 E	
C - Y = 435,257.7 N		C - X = 674,292.8 E	
D - Y = 432,613.8 N		D - X = 674,254.9 E	
E - Y = 429,970.0 N		E - X = 674,334.4 E	
F - Y = 427,326.7 N		F - X = 674,344.5 E	
G - Y = 424,680.6 N		G - X = 674,354.7 E	
H - Y = 422,013.8 N		H - X = 674,366.7 E	
I - Y = 440,560.2 N		I - X = 675,601.6 E	
J - Y = 437,916.2 N		J - X = 675,611.7 E	
K - Y = 435,272.8 N		K - X = 675,621.8 E	
L - Y = 432,629.6 N		L - X = 675,647.0 E	
M - Y = 429,987.0 N		M - X = 675,672.5 E	
N - Y = 427,344.2 N		N - X = 675,684.2 E	
O - Y = 424,698.7 N		O - X = 675,695.7 E	
P - Y = 422,038.9 N		P - X = 675,706.9 E	

CORNER COORDINATES (NAD 27 NME)

A - Y = 440,487.1 N		A - X = 633,078.3 E	
B - Y = 437,842.5 N		B - X = 633,093.6 E	
C - Y = 435,198.6 N		C - X = 633,108.9 E	
D - Y = 432,554.7 N		D - X = 633,129.7 E	
E - Y = 429,911.0 N		E - X = 633,150.4 E	
F - Y = 427,267.8 N		F - X = 633,160.4 E	
G - Y = 424,621.7 N		G - X = 633,170.5 E	
H - Y = 421,954.9 N		H - X = 633,182.4 E	
I - Y = 440,500.9 N		I - X = 634,417.9 E	
J - Y = 437,857.0 N		J - X = 634,427.9 E	
K - Y = 435,213.7 N		K - X = 634,437.9 E	
L - Y = 432,570.5 N		L - X = 634,463.1 E	
M - Y = 429,928.0 N		M - X = 634,488.4 E	
N - Y = 427,285.3 N		N - X = 634,500.0 E	
O - Y = 424,639.8 N		O - X = 634,511.5 E	
P - Y = 421,980.1 N		P - X = 634,522.6 E	

[17] OPERATOR CERTIFICATION

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

Richard L Redus 3/24/2024
Signature Date

Richard L Redus
Printed Name

richard.l.redus@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.

3/15/2024
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

RP 618.013003.06-52

J:\618.013 XTO Energy - NM\003 Poker Lake Unit\06 - PLU 20 DTD - EDDY\Wells\-52 - 324H\DWG\SOUTH 324H C-102.dwg

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

XTO Energy Inc.
PLU 20 Dog Town Draw 324H
Projected TD: 28999.23' MD / 11009' TVD
SHL: 877' FNL & 1982' FEL , Section 20, T24S, R30E
BHL: 2430' FNL & 1393' FEL , 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	875'	Water
Top of Salt	1278'	Water
Base of Salt	3471'	Water
Delaware	3665'	Water
Brushy Canyon	6163'	Water/Oil/Gas
Bone Spring	7459'	Water
1st Bone Spring	8445'	Water/Oil/Gas
2nd Bone Spring	9263'	Water/Oil/Gas
3rd Bone Spring	10357'	Water/Oil/Gas
Wolfcamp	10748'	Water/Oil/Gas
Wolfcamp X	10769'	Water/Oil/Gas
Wolfcamp Y	10847'	Water/Oil/Gas
Wolfcamp A	10889'	Water/Oil/Gas
Target/Land Curve	11009'	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 @ 975' (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 10198.86' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 28999.23 MD/TD and 6 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9898.86 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 975'	13.375	54.5	J-55	BTC	New	1.13	2.65	17.11
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.83	2.31	3.10
12.25	4000' – 10198.86'	9.625	40	HC L-80	BTC	New	1.33	1.72	3.69
8.5	0' – 10098.86'	6	26	P-110	Semi-Premium	New	1.17	2.19	1.61
8.5	10098.86' - 28999.23'	6	26	P-110	Semi-Premium	New	1.17	2.01	1.83

· 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

. XTO requests the option to use 5.5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

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

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

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

4. Cement Program

Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 975'

Lead: 500 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 +/- 10198.86'
1st Stage
Optional Lead: 1040 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: 1170 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 6163
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: 2170 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 (6163') 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 +/- 28999.23'

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 9898.86 feet
Tail: 3160 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10398.86 feet
Compressives: 12-hr = 800 psi 24 hr = 1500 psi

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

5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 4333 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 9.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each 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' - 975'	17.5	FW/Native	8.4-8.9	35-40	NC
975' - 10198.86'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10198.86' - 28999.23'	8.5	OBM	11.8-12.3	50-60	NC - 20

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

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

7. Auxiliary Well Control and Monitoring Equipment

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

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6755 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.

Received by OCD: 8/2/2024 11:01:04 AM

Well Plan Report - Poker Lake Unit 20 DTD South 324H

Measured Depth:	28999.00 ft
TVD RKB:	11009.00 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	439617.40 ft
Easting:	633776.90 ft
RKB:	3298.00 ft
Ground Level:	3266.00 ft
North Reference:	Grid
Convergence Angle:	0.23 Deg

Plan Sections Poker Lake Unit 20 DTD South 324H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1749.85	13.00	36.99	1744.29	58.62	44.16	2.00	0.00	2.00	
5456.22	13.00	36.99	5355.71	724.38	545.74	0.00	0.00	0.00	
6106.07	0.00	0.00	6000.00	783.00	589.90	-2.00	0.00	2.00	
10398.86	0.00	0.00	10292.80	783.00	589.90	0.00	0.00	0.00	
11523.86	90.00	179.68	11009.00	66.81	593.92	8.00	0.00	8.00	
12121.53	90.00	179.68	11009.00	-530.85	597.28	0.00	0.00	0.00	LTP 20
28999.23	90.00	179.68	11009.00	-17408.27	692.14	0.00	0.00	0.00	BHL 20

Position Uncertainty Poker Lake Unit 20 DTD South 324H

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

Released to Imaging: 8/7/2024 9:31:07 AM

Received by OCD: 8/2/2024 11:01:04 AM

Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.260	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	122.728	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	125.475	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	1.343	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	127.421	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	127.870	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	128.192	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.333	0.000	3.138	0.000	2.484	0.000	0.000	3.642	2.774	128.446	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.501	0.000	2.529	0.000	0.000	4.014	3.132	128.582	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.057	0.000	3.865	0.000	2.579	0.000	0.000	4.384	3.491	128.759	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.418	0.000	4.227	0.000	2.632	0.000	0.000	4.752	3.849	128.868	MWD+IFR1+MS
1200.000	1.999	36.990	1199.980	5.162	0.000	4.220	0.000	2.688	0.000	0.000	5.295	4.213	131.231	MWD+IFR1+MS
1300.000	4.000	36.990	1299.838	5.762	0.000	4.610	0.000	2.748	0.000	0.000	6.069	4.579	134.639	MWD+IFR1+MS
1400.000	6.000	36.990	1399.452	6.265	0.000	4.997	0.000	2.813	0.000	0.000	6.776	4.941	-43.747	MWD+IFR1+MS
1500.000	7.999	36.990	1498.702	6.687	0.000	5.377	0.000	2.886	0.000	0.000	7.431	5.298	-42.814	MWD+IFR1+MS
1600.000	10.000	36.990	1597.465	7.039	0.000	5.756	0.000	2.969	0.000	0.000	8.047	5.655	-42.216	MWD+IFR1+MS
1700.000	11.990	36.990	1695.623	7.329	0.000	6.133	0.000	3.063	0.000	0.000	8.630	6.014	-41.786	MWD+IFR1+MS
1749.800	12.990	36.990	1744.290	7.343	0.000	6.311	0.000	3.097	0.000	0.000	8.800	6.192	-41.792	MWD+IFR1+MS
1800.000	12.990	36.990	1793.156	7.444	0.000	6.487	0.000	3.134	0.000	0.000	8.935	6.372	-41.816	MWD+IFR1+MS
1900.000	12.990	36.990	1890.595	7.648	0.000	6.854	0.000	3.216	0.000	0.000	9.205	6.743	-41.673	MWD+IFR1+MS
2000.000	12.990	36.990	1988.033	7.869	0.000	7.234	0.000	3.302	0.000	0.000	9.494	7.121	-41.328	MWD+IFR1+MS
2100.000	12.990	36.990	2085.471	8.095	0.000	7.613	0.000	3.393	0.000	0.000	9.790	7.499	-40.994	MWD+IFR1+MS
2200.000	12.990	36.990	2182.909	8.326	0.000	7.993	0.000	3.486	0.000	0.000	10.091	7.878	-40.662	MWD+IFR1+MS
2300.000	12.990	36.990	2280.347	8.562	0.000	8.373	0.000	3.581	0.000	0.000	10.399	8.257	-40.333	MWD+IFR1+MS
2400.000	12.990	36.990	2377.786	8.802	0.000	8.754	0.000	3.680	0.000	0.000	10.710	8.637	-40.010	MWD+IFR1+MS
2500.000	12.990	36.990	2475.224	9.045	0.000	9.132	0.000	3.780	0.000	0.000	11.025	9.015	-39.729	MWD+IFR1+MS
2600.000	12.990	36.990	2572.662	9.293	0.000	9.513	0.000	3.883	0.000	0.000	11.346	9.395	-39.442	MWD+IFR1+MS
2700.000	12.990	36.990	2670.100	9.543	0.000	9.893	0.000	3.990	0.000	0.000	11.670	9.774	-39.110	MWD+IFR1+MS
2800.000	12.990	36.990	2767.538	9.798	0.000	10.275	0.000	4.098	0.000	0.000	11.999	10.155	-38.850	MWD+IFR1+MS
2900.000	12.990	36.990	2864.977	10.055	0.000	10.656	0.000	4.207	0.000	0.000	12.330	10.535	-38.524	MWD+IFR1+MS

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3000.000	12.990	36.990	2962.415	10.315	0.000	11.037	0.000	4.319	0.000	0.000	12.664	10.914	-38.201	MWD+IFR1+MS
3100.000	12.990	36.990	3059.853	10.576	0.000	11.418	0.000	4.432	0.000	0.000	13.000	11.296	-38.012	MWD+IFR1+MS
3200.000	12.990	36.990	3157.291	10.841	0.000	11.800	0.000	4.548	0.000	0.000	13.340	11.676	-37.695	MWD+IFR1+MS
3300.000	12.990	36.990	3254.729	11.108	0.000	12.181	0.000	4.665	0.000	0.000	13.682	12.058	-37.513	MWD+IFR1+MS
3400.000	12.990	36.990	3352.167	11.378	0.000	12.564	0.000	4.783	0.000	0.000	14.027	12.439	-37.201	MWD+IFR1+MS
3500.000	12.990	36.990	3449.606	11.647	0.000	12.945	0.000	4.904	0.000	0.000	14.372	12.820	-36.955	MWD+IFR1+MS
3600.000	12.990	36.990	3547.044	11.919	0.000	13.326	0.000	5.026	0.000	0.000	14.719	13.200	-36.714	MWD+IFR1+MS
3700.000	12.990	36.990	3644.482	12.193	0.000	13.707	0.000	5.150	0.000	0.000	15.069	13.581	-36.475	MWD+IFR1+MS
3800.000	12.990	36.990	3741.920	12.469	0.000	14.090	0.000	5.274	0.000	0.000	15.421	13.964	-36.299	MWD+IFR1+MS
3900.000	12.990	36.990	3839.358	12.745	0.000	14.472	0.000	5.402	0.000	0.000	15.774	14.345	-36.065	MWD+IFR1+MS
4000.000	12.990	36.990	3936.797	13.024	0.000	14.854	0.000	5.530	0.000	0.000	16.128	14.727	-35.833	MWD+IFR1+MS
4100.000	12.990	36.990	4034.235	13.303	0.000	15.237	0.000	5.660	0.000	0.000	16.484	15.109	-35.599	MWD+IFR1+MS
4200.000	12.990	36.990	4131.673	13.583	0.000	15.618	0.000	5.791	0.000	0.000	16.839	15.490	-35.434	MWD+IFR1+MS
4300.000	12.990	36.990	4229.111	13.865	0.000	16.001	0.000	5.925	0.000	0.000	17.198	15.872	-35.208	MWD+IFR1+MS
4400.000	12.990	36.990	4326.549	14.147	0.000	16.382	0.000	6.060	0.000	0.000	17.556	16.254	-35.042	MWD+IFR1+MS
4500.000	12.990	36.990	4423.988	14.431	0.000	16.764	0.000	6.195	0.000	0.000	17.916	16.634	-34.760	MWD+IFR1+MS
4600.000	12.990	36.990	4521.426	14.715	0.000	17.146	0.000	6.333	0.000	0.000	18.277	17.016	-34.601	MWD+IFR1+MS
4700.000	12.990	36.990	4618.864	15.001	0.000	17.528	0.000	6.473	0.000	0.000	18.639	17.398	-34.444	MWD+IFR1+MS
4800.000	12.990	36.990	4716.302	15.287	0.000	17.910	0.000	6.614	0.000	0.000	19.001	17.781	-34.284	MWD+IFR1+MS
4900.000	12.990	36.990	4813.740	15.574	0.000	18.293	0.000	6.756	0.000	0.000	19.365	18.163	-34.130	MWD+IFR1+MS
5000.000	12.990	36.990	4911.179	15.861	0.000	18.674	0.000	6.901	0.000	0.000	19.729	18.544	-33.919	MWD+IFR1+MS
5100.000	12.990	36.990	5008.617	16.150	0.000	19.057	0.000	7.046	0.000	0.000	20.094	18.927	-33.767	MWD+IFR1+MS
5200.000	12.990	36.990	5106.055	16.439	0.000	19.439	0.000	7.194	0.000	0.000	20.459	19.309	-33.676	MWD+IFR1+MS
5300.000	12.990	36.990	5203.493	16.729	0.000	19.822	0.000	7.343	0.000	0.000	20.826	19.692	-33.527	MWD+IFR1+MS
5400.000	12.990	36.990	5300.931	17.018	0.000	20.203	0.000	7.494	0.000	0.000	21.191	20.073	-33.379	MWD+IFR1+MS
5456.200	12.990	36.990	5355.710	17.179	0.000	20.415	0.000	7.579	0.000	0.000	21.394	20.288	-33.432	MWD+IFR1+MS
5500.000	12.120	36.990	5398.443	17.629	0.000	20.579	0.000	7.647	0.000	0.000	21.551	20.454	-33.504	MWD+IFR1+MS
5600.000	10.120	36.990	5496.560	18.709	0.000	20.952	0.000	7.803	0.000	0.000	21.966	20.828	-33.970	MWD+IFR1+MS
5700.000	8.121	36.990	5595.291	19.829	0.000	21.322	0.000	7.959	0.000	0.000	22.436	21.195	-34.618	MWD+IFR1+MS
5800.000	6.121	36.990	5694.514	20.927	0.000	21.686	0.000	8.106	0.000	0.000	22.899	21.556	-35.115	MWD+IFR1+MS
5900.000	4.121	36.990	5794.110	22.000	0.000	22.044	0.000	8.246	0.000	0.000	23.353	21.910	-35.533	MWD+IFR1+MS
6000.000	2.121	36.990	5893.956	23.048	0.000	22.396	0.000	8.380	0.000	0.000	23.799	22.258	-35.887	MWD+IFR1+MS
6106.000	0.000	0.000	6000.000	23.247	0.000	23.656	0.000	8.517	0.000	0.000	24.242	22.634	-37.622	MWD+IFR1+MS

6200.000	0.000	0.000	6093.932	23.597	0.000	23.960	0.000	8.638	0.000	0.000	24.568	22.963	-38.446	MWD+IFR1+MS
6300.000	0.000	0.000	6193.932	23.931	0.000	24.284	0.000	8.769	0.000	0.000	24.890	23.299	-38.595	MWD+IFR1+MS
6400.000	0.000	0.000	6293.932	24.267	0.000	24.609	0.000	8.902	0.000	0.000	25.215	23.637	-38.744	MWD+IFR1+MS
6500.000	0.000	0.000	6393.932	24.603	0.000	24.936	0.000	9.038	0.000	0.000	25.541	23.975	-38.857	MWD+IFR1+MS
6600.000	0.000	0.000	6493.932	24.940	0.000	25.263	0.000	9.176	0.000	0.000	25.867	24.313	-39.003	MWD+IFR1+MS
6700.000	0.000	0.000	6593.932	25.278	0.000	25.591	0.000	9.318	0.000	0.000	26.194	24.653	-39.149	MWD+IFR1+MS
6800.000	0.000	0.000	6693.932	25.616	0.000	25.919	0.000	9.463	0.000	0.000	26.522	24.992	-39.292	MWD+IFR1+MS
6900.000	0.000	0.000	6793.932	25.954	0.000	26.249	0.000	9.609	0.000	0.000	26.850	25.331	-39.397	MWD+IFR1+MS
7000.000	0.000	0.000	6893.932	26.294	0.000	26.580	0.000	9.759	0.000	0.000	27.181	25.673	-39.538	MWD+IFR1+MS
7100.000	0.000	0.000	6993.932	26.633	0.000	26.911	0.000	9.911	0.000	0.000	27.510	26.013	-39.642	MWD+IFR1+MS
7200.000	0.000	0.000	7093.932	26.974	0.000	27.242	0.000	10.065	0.000	0.000	27.841	26.355	-39.815	MWD+IFR1+MS
7300.000	0.000	0.000	7193.932	27.313	0.000	27.575	0.000	10.223	0.000	0.000	28.173	26.696	-39.882	MWD+IFR1+MS
7400.000	0.000	0.000	7293.932	27.655	0.000	27.907	0.000	10.383	0.000	0.000	28.505	27.038	-40.051	MWD+IFR1+MS
7500.000	0.000	0.000	7393.932	27.996	0.000	28.242	0.000	10.550	0.000	0.000	28.838	27.381	-40.150	MWD+IFR1+MS
7600.000	0.000	0.000	7493.932	28.339	0.000	28.576	0.000	10.714	0.000	0.000	29.172	27.725	-40.283	MWD+IFR1+MS
7700.000	0.000	0.000	7593.932	28.681	0.000	28.910	0.000	10.886	0.000	0.000	29.506	28.068	-40.413	MWD+IFR1+MS
7800.000	0.000	0.000	7693.932	29.022	0.000	29.246	0.000	11.059	0.000	0.000	29.840	28.411	-40.509	MWD+IFR1+MS
7900.000	0.000	0.000	7793.932	29.367	0.000	29.582	0.000	11.234	0.000	0.000	30.176	28.756	-40.636	MWD+IFR1+MS
8000.000	0.000	0.000	7893.932	29.710	0.000	29.918	0.000	11.411	0.000	0.000	30.512	29.100	-40.763	MWD+IFR1+MS
8100.000	0.000	0.000	7993.932	30.053	0.000	30.256	0.000	11.593	0.000	0.000	30.848	29.445	-40.854	MWD+IFR1+MS
8200.000	0.000	0.000	8093.932	30.397	0.000	30.592	0.000	11.777	0.000	0.000	31.185	29.790	-40.979	MWD+IFR1+MS
8300.000	0.000	0.000	8193.932	30.742	0.000	30.931	0.000	11.962	0.000	0.000	31.522	30.135	-41.102	MWD+IFR1+MS
8400.000	0.000	0.000	8293.932	31.087	0.000	31.268	0.000	12.153	0.000	0.000	31.860	30.481	-41.223	MWD+IFR1+MS
8500.000	0.000	0.000	8393.932	31.431	0.000	31.607	0.000	12.349	0.000	0.000	32.197	30.826	-41.311	MWD+IFR1+MS
8600.000	0.000	0.000	8493.932	31.765	0.000	31.937	0.000	12.546	0.000	0.000	32.526	31.162	-41.365	MWD+IFR1+MS
8700.000	0.000	0.000	8593.932	32.109	0.000	32.280	0.000	12.744	0.000	0.000	32.867	31.509	-41.385	MWD+IFR1+MS
8800.000	0.000	0.000	8693.932	32.465	0.000	32.619	0.000	12.946	0.000	0.000	33.210	31.861	-41.730	MWD+IFR1+MS
8900.000	0.000	0.000	8793.932	32.802	0.000	32.955	0.000	13.153	0.000	0.000	33.543	32.200	-41.748	MWD+IFR1+MS
9000.000	0.000	0.000	8893.932	33.151	0.000	33.302	0.000	13.360	0.000	0.000	33.888	32.552	-41.766	MWD+IFR1+MS
9100.000	0.000	0.000	8993.932	33.496	0.000	33.645	0.000	13.572	0.000	0.000	34.229	32.899	-41.784	MWD+IFR1+MS
9200.000	0.000	0.000	9093.932	33.853	0.000	33.985	0.000	13.788	0.000	0.000	34.573	33.252	-42.119	MWD+IFR1+MS
9300.000	0.000	0.000	9193.932	34.191	0.000	34.322	0.000	14.007	0.000	0.000	34.908	33.592	-42.135	MWD+IFR1+MS
9400.000	0.000	0.000	9293.932	34.540	0.000	34.670	0.000	14.227	0.000	0.000	35.254	33.944	-42.151	MWD+IFR1+MS

9500.000	0.000	0.000	9393.932	34.886	0.000	35.014	0.000	14.450	0.000	0.000	35.596	34.292	-42.167	MWD+IFR1+MS
9600.000	0.000	0.000	9493.932	35.242	0.000	35.355	0.000	14.680	0.000	0.000	35.941	34.644	-42.493	MWD+IFR1+MS
9700.000	0.000	0.000	9593.932	35.581	0.000	35.693	0.000	14.910	0.000	0.000	36.277	34.985	-42.507	MWD+IFR1+MS
9800.000	0.000	0.000	9693.932	35.930	0.000	36.042	0.000	15.143	0.000	0.000	36.623	35.337	-42.520	MWD+IFR1+MS
9900.000	0.000	0.000	9793.932	36.277	0.000	36.387	0.000	15.379	0.000	0.000	36.967	35.686	-42.534	MWD+IFR1+MS
10000.000	0.000	0.000	9893.932	36.633	0.000	36.729	0.000	15.617	0.000	0.000	37.313	36.038	-42.852	MWD+IFR1+MS
10100.000	0.000	0.000	9993.932	36.986	0.000	37.068	0.000	15.862	0.000	0.000	37.655	36.388	-43.168	MWD+IFR1+MS
10200.000	0.000	0.000	10093.932	37.336	0.000	37.417	0.000	16.106	0.000	0.000	38.002	36.740	-43.177	MWD+IFR1+MS
10300.000	0.000	0.000	10193.932	37.683	0.000	37.762	0.000	16.355	0.000	0.000	38.346	37.089	-43.187	MWD+IFR1+MS
10398.000	0.000	0.000	10292.800	38.026	0.000	38.105	0.000	16.607	0.000	0.000	38.687	37.434	-43.196	MWD+IFR1+MS
10400.000	0.091	179.600	10293.932	38.078	0.000	38.114	-0.000	16.607	0.000	0.000	38.687	37.434	-43.196	MWD+IFR1+MS
10500.000	8.090	179.600	10393.596	43.383	0.000	38.415	-0.000	16.870	0.000	0.000	39.145	37.864	130.333	MWD+IFR1+MS
10600.000	16.090	179.600	10491.299	48.418	0.000	38.714	-0.000	17.219	0.000	0.000	40.232	38.398	113.858	MWD+IFR1+MS
10700.000	24.090	179.600	10585.138	52.153	0.000	38.985	-0.000	17.731	0.000	0.000	41.324	38.747	107.016	MWD+IFR1+MS
10800.000	32.090	179.600	10673.286	54.448	0.000	39.229	-0.000	18.461	0.000	0.000	42.288	39.022	103.888	MWD+IFR1+MS
10900.000	40.090	179.600	10754.029	55.238	0.000	39.433	-0.000	19.435	0.000	0.000	43.096	39.239	102.238	MWD+IFR1+MS
11000.000	48.090	179.600	10825.795	54.483	0.000	39.623	-0.000	20.645	0.000	0.000	43.716	39.432	101.476	MWD+IFR1+MS
11100.000	56.090	179.600	10887.187	52.268	0.000	39.787	-0.000	22.064	0.000	0.000	44.175	39.593	101.164	MWD+IFR1+MS
11200.000	64.090	179.600	10937.009	48.683	0.000	39.913	-0.000	23.637	0.000	0.000	44.475	39.711	101.162	MWD+IFR1+MS
11300.000	72.090	179.600	10974.293	43.864	0.000	40.014	-0.000	25.308	0.000	0.000	44.643	39.800	101.402	MWD+IFR1+MS
11400.000	80.090	179.600	10998.312	37.944	0.000	40.077	-0.000	27.022	0.000	0.000	44.722	39.849	101.742	MWD+IFR1+MS
11500.000	88.090	179.600	11008.600	30.956	0.000	40.127	-0.000	28.719	0.000	0.000	44.747	39.884	102.159	MWD+IFR1+MS
11523.000	90.000	179.600	11008.997	28.791	0.000	40.127	-0.000	28.791	0.000	0.000	44.760	39.882	102.204	MWD+IFR1+MS
11600.000	90.000	179.600	11008.997	28.940	0.000	40.140	-0.000	28.940	0.000	0.000	44.769	39.884	102.463	MWD+IFR1+MS
11700.000	90.000	179.600	11008.997	29.136	0.000	40.178	-0.000	29.136	0.000	0.000	44.782	39.907	102.856	MWD+IFR1+MS
11800.000	90.000	179.600	11008.997	29.351	0.000	40.228	-0.000	29.351	0.000	0.000	44.796	39.941	103.280	MWD+IFR1+MS
11900.000	90.000	179.600	11008.997	29.587	0.000	40.291	-0.000	29.587	0.000	0.000	44.822	39.987	103.710	MWD+IFR1+MS
12000.000	90.000	179.600	11008.997	29.843	0.000	40.365	-0.000	29.843	0.000	0.000	44.839	40.044	104.207	MWD+IFR1+MS
12100.000	90.000	179.600	11008.997	30.115	0.000	40.465	-0.000	30.115	0.000	0.000	44.868	40.123	104.751	MWD+IFR1+MS
12121.000	90.000	179.600	11008.997	30.174	0.000	40.477	-0.000	30.174	0.000	0.000	44.872	40.132	104.849	MWD+IFR1+MS
12200.000	90.000	179.600	11008.997	30.401	0.000	40.564	-0.000	30.401	0.000	0.000	44.887	40.201	105.334	MWD+IFR1+MS
12300.000	90.000	179.600	11008.997	30.708	0.000	40.687	-0.000	30.708	0.000	0.000	44.920	40.301	105.981	MWD+IFR1+MS
12400.000	90.000	179.600	11008.997	31.032	0.000	40.823	-0.000	31.032	0.000	0.000	44.955	40.411	106.673	MWD+IFR1+MS

12500.000	90.000	179.600	11008.997	31.374	0.000	40.970	-0.000	31.374	0.000	0.000	44.982	40.529	107.484	MWD+IFR1+MS
12600.000	90.000	179.600	11008.997	31.718	0.000	41.129	-0.000	31.718	0.000	0.000	45.022	40.658	108.325	MWD+IFR1+MS
12700.000	90.000	179.600	11008.997	32.094	0.000	41.311	-0.000	32.094	0.000	0.000	45.065	40.806	109.281	MWD+IFR1+MS
12800.000	90.000	179.600	11008.997	32.481	0.000	41.505	-0.000	32.481	0.000	0.000	45.113	40.961	110.344	MWD+IFR1+MS
12900.000	90.000	179.600	11008.997	32.879	0.000	41.709	-0.000	32.879	0.000	0.000	45.165	41.123	111.513	MWD+IFR1+MS
13000.000	90.000	179.600	11008.997	33.302	0.000	41.925	-0.000	33.302	0.000	0.000	45.222	41.291	112.798	MWD+IFR1+MS
13100.000	90.000	179.600	11008.997	33.719	0.000	42.151	-0.000	33.719	0.000	0.000	45.285	41.464	114.212	MWD+IFR1+MS
13200.000	90.000	179.600	11008.997	34.161	0.000	42.388	-0.000	34.161	0.000	0.000	45.355	41.641	115.767	MWD+IFR1+MS
13300.000	90.000	179.600	11008.997	34.612	0.000	42.648	-0.000	34.612	0.000	0.000	45.435	41.829	117.559	MWD+IFR1+MS
13400.000	90.000	179.600	11008.997	35.086	0.000	42.917	-0.000	35.086	0.000	0.000	45.525	42.018	119.512	MWD+IFR1+MS
13500.000	90.000	179.600	11008.997	35.553	0.000	43.196	-0.000	35.553	0.000	0.000	45.633	42.210	121.556	MWD+IFR1+MS
13600.000	90.000	179.600	11008.997	36.042	0.000	43.485	-0.000	36.042	0.000	0.000	45.746	42.394	123.862	MWD+IFR1+MS
13700.000	90.000	179.600	11008.997	36.538	0.000	43.783	-0.000	36.538	0.000	0.000	45.873	42.575	126.323	MWD+IFR1+MS
13800.000	90.000	179.600	11008.997	37.054	0.000	44.091	-0.000	37.054	0.000	0.000	46.023	42.753	128.834	MWD+IFR1+MS
13900.000	90.000	179.600	11008.997	37.563	0.000	44.419	-0.000	37.563	0.000	0.000	46.188	42.927	131.640	MWD+IFR1+MS
14000.000	90.000	179.600	11008.997	38.092	0.000	44.755	-0.000	38.092	0.000	0.000	46.378	43.094	134.415	MWD+IFR1+MS
14100.000	90.000	179.600	11008.997	38.626	0.000	45.101	-0.000	38.626	0.000	0.000	46.582	43.245	-42.704	MWD+IFR1+MS
14200.000	90.000	179.600	11008.997	39.166	0.000	45.455	-0.000	39.166	0.000	0.000	46.812	43.389	-39.964	MWD+IFR1+MS
14300.000	90.000	179.600	11008.997	39.724	0.000	45.817	-0.000	39.724	0.000	0.000	47.062	43.522	-37.314	MWD+IFR1+MS
14400.000	90.000	179.600	11008.997	40.274	0.000	46.197	-0.000	40.274	0.000	0.000	47.335	43.640	-34.634	MWD+IFR1+MS
14500.000	90.000	179.600	11008.997	40.841	0.000	46.575	-0.000	40.841	0.000	0.000	47.623	43.750	-32.282	MWD+IFR1+MS
14600.000	90.000	179.600	11008.997	41.413	0.000	46.971	-0.000	41.413	0.000	0.000	47.936	43.853	-30.035	MWD+IFR1+MS
14700.000	90.000	179.600	11008.997	42.000	0.000	47.374	-0.000	42.000	0.000	0.000	48.266	43.947	-27.975	MWD+IFR1+MS
14800.000	90.000	179.600	11008.997	42.579	0.000	47.784	-0.000	42.579	0.000	0.000	48.612	44.033	-26.100	MWD+IFR1+MS
14900.000	90.000	179.600	11008.997	43.174	0.000	48.212	-0.000	43.174	0.000	0.000	48.980	44.113	-24.352	MWD+IFR1+MS
15000.000	90.000	179.600	11008.997	43.772	0.000	48.635	-0.000	43.772	0.000	0.000	49.354	44.184	-22.827	MWD+IFR1+MS
15100.000	90.000	179.600	11008.997	44.385	0.000	49.076	-0.000	44.385	0.000	0.000	49.747	44.252	-21.402	MWD+IFR1+MS
15200.000	90.000	179.600	11008.997	44.989	0.000	49.522	-0.000	44.989	0.000	0.000	50.152	44.314	-20.117	MWD+IFR1+MS
15300.000	90.000	179.600	11008.997	45.607	0.000	49.975	-0.000	45.607	0.000	0.000	50.568	44.372	-18.965	MWD+IFR1+MS
15400.000	90.000	179.600	11008.997	46.228	0.000	50.433	-0.000	46.228	0.000	0.000	50.993	44.426	-17.916	MWD+IFR1+MS
15500.000	90.000	179.600	11008.997	46.851	0.000	50.898	-0.000	46.851	0.000	0.000	51.428	44.487	-16.995	MWD+IFR1+MS
15600.000	90.000	179.600	11008.997	47.487	0.000	51.377	-0.000	47.487	0.000	0.000	51.880	44.537	-16.106	MWD+IFR1+MS
15700.000	90.000	179.600	11008.997	48.114	0.000	51.862	-0.000	48.114	0.000	0.000	52.340	44.593	-15.325	MWD+IFR1+MS

15800.000	90.000	179.600	11008.997	48.754	0.000	52.351	-0.000	48.754	0.000	0.000	52.807	44.637	-14.593	MWD+IFR1+MS
15900.000	90.000	179.600	11008.997	49.396	0.000	52.846	-0.000	49.396	0.000	0.000	53.281	44.689	-13.940	MWD+IFR1+MS
16000.000	90.000	179.600	11008.997	50.050	0.000	53.346	-0.000	50.050	0.000	0.000	53.761	44.730	-13.326	MWD+IFR1+MS
16100.000	90.000	179.600	11008.997	50.695	0.000	53.850	-0.000	50.695	0.000	0.000	54.248	44.779	-12.774	MWD+IFR1+MS
16200.000	90.000	179.600	11008.997	51.352	0.000	54.367	-0.000	51.352	0.000	0.000	54.749	44.817	-12.241	MWD+IFR1+MS
16300.000	90.000	179.600	11008.997	52.010	0.000	54.889	-0.000	52.010	0.000	0.000	55.256	44.864	-11.760	MWD+IFR1+MS
16400.000	90.000	179.600	11008.997	52.678	0.000	55.416	-0.000	52.678	0.000	0.000	55.768	44.910	-11.314	MWD+IFR1+MS
16500.000	90.000	179.600	11008.997	53.339	0.000	55.946	-0.000	53.339	0.000	0.000	56.285	44.955	-10.901	MWD+IFR1+MS
16600.000	90.000	179.600	11008.997	54.009	0.000	56.480	-0.000	54.009	0.000	0.000	56.807	45.000	-10.516	MWD+IFR1+MS
16700.000	90.000	179.600	11008.997	54.681	0.000	57.017	-0.000	54.681	0.000	0.000	57.334	45.043	-10.161	MWD+IFR1+MS
16800.000	90.000	179.600	11008.997	55.353	0.000	57.568	-0.000	55.353	0.000	0.000	57.873	45.086	-9.818	MWD+IFR1+MS
16900.000	90.000	179.600	11008.997	56.036	0.000	58.121	-0.000	56.036	0.000	0.000	58.416	45.128	-9.497	MWD+IFR1+MS
17000.000	90.000	179.600	11008.997	56.710	0.000	58.678	-0.000	56.710	0.000	0.000	58.964	45.169	-9.200	MWD+IFR1+MS
17100.000	90.000	179.600	11008.997	57.393	0.000	59.238	-0.000	57.393	0.000	0.000	59.515	45.211	-8.918	MWD+IFR1+MS
17200.000	90.000	179.600	11008.997	58.086	0.000	59.801	-0.000	58.086	0.000	0.000	60.070	45.251	-8.656	MWD+IFR1+MS
17300.000	90.000	179.600	11008.997	58.771	0.000	60.376	-0.000	58.771	0.000	0.000	60.636	45.291	-8.404	MWD+IFR1+MS
17400.000	90.000	179.600	11008.997	59.464	0.000	60.945	-0.000	59.464	0.000	0.000	61.198	45.341	-8.176	MWD+IFR1+MS
17500.000	90.000	179.600	11008.997	60.158	0.000	61.525	-0.000	60.158	0.000	0.000	61.770	45.381	-7.948	MWD+IFR1+MS
17600.000	90.000	179.600	11008.997	60.852	0.000	62.107	-0.000	60.852	0.000	0.000	62.346	45.420	-7.736	MWD+IFR1+MS
17700.000	90.000	179.600	11008.997	61.547	0.000	62.692	-0.000	61.547	0.000	0.000	62.925	45.469	-7.539	MWD+IFR1+MS
17800.000	90.000	179.600	11008.997	62.249	0.000	63.288	-0.000	62.249	0.000	0.000	63.514	45.507	-7.344	MWD+IFR1+MS
17900.000	90.000	179.600	11008.997	62.944	0.000	63.878	-0.000	62.944	0.000	0.000	64.099	45.556	-7.167	MWD+IFR1+MS
18000.000	90.000	179.600	11008.997	63.647	0.000	64.478	-0.000	63.647	0.000	0.000	64.694	45.604	-6.998	MWD+IFR1+MS
18100.000	90.000	179.600	11008.997	64.358	0.000	65.081	-0.000	64.358	0.000	0.000	65.290	45.642	-6.831	MWD+IFR1+MS
18200.000	90.000	179.600	11008.997	65.062	0.000	65.685	-0.000	65.062	0.000	0.000	65.890	45.690	-6.675	MWD+IFR1+MS
18300.000	90.000	179.600	11008.997	65.772	0.000	66.291	-0.000	65.772	0.000	0.000	66.491	45.737	-6.526	MWD+IFR1+MS
18400.000	90.000	179.600	11008.997	66.483	0.000	66.900	-0.000	66.483	0.000	0.000	67.095	45.785	-6.386	MWD+IFR1+MS
18500.000	90.000	179.600	11008.997	67.194	0.000	67.518	-0.000	67.194	0.000	0.000	67.708	45.832	-6.248	MWD+IFR1+MS
18600.000	90.000	179.600	11008.997	67.904	0.000	68.130	-0.000	67.904	0.000	0.000	68.316	45.879	-6.120	MWD+IFR1+MS
18700.000	90.000	179.600	11008.997	68.622	0.000	68.751	-0.000	68.622	0.000	0.000	68.933	45.926	-5.993	MWD+IFR1+MS
18800.000	90.000	179.600	11008.997	69.340	0.000	69.374	-0.000	69.340	0.000	0.000	69.552	45.973	-5.874	MWD+IFR1+MS
18900.000	90.000	179.600	11008.997	70.057	0.000	70.006	-0.000	70.057	0.000	0.000	70.180	46.019	-5.757	MWD+IFR1+MS
19000.000	90.000	179.600	11008.997	70.774	0.000	70.632	-0.000	70.774	0.000	0.000	70.802	46.065	-5.645	MWD+IFR1+MS

19100.000	90.000	179.600	11008.997	71.498	0.000	71.266	-0.000	71.498	0.000	0.000	71.433	46.112	-5.538	MWD+IFR1+MS
19200.000	90.000	179.600	11008.997	72.222	0.000	71.895	-0.000	72.222	0.000	0.000	72.059	46.157	-5.437	MWD+IFR1+MS
19300.000	90.000	179.600	11008.997	72.945	0.000	72.532	-0.000	72.945	0.000	0.000	72.693	46.214	-5.339	MWD+IFR1+MS
19400.000	90.000	179.600	11008.997	73.668	0.000	73.171	-0.000	73.668	0.000	0.000	73.328	46.260	-5.244	MWD+IFR1+MS
19500.000	90.000	179.600	11008.997	74.398	0.000	73.817	-0.000	74.398	0.000	0.000	73.972	46.305	-5.150	MWD+IFR1+MS
19600.000	90.000	179.600	11008.997	75.120	0.000	74.458	-0.000	75.120	0.000	0.000	74.610	46.361	-5.063	MWD+IFR1+MS
19700.000	90.000	179.600	11008.997	75.849	0.000	75.107	-0.000	75.849	0.000	0.000	75.256	46.407	-4.978	MWD+IFR1+MS
19800.000	90.000	179.600	11008.997	76.583	0.000	75.750	-0.000	76.583	0.000	0.000	75.896	46.462	-4.897	MWD+IFR1+MS
19900.000	90.000	179.600	11008.997	77.311	0.000	76.401	-0.000	77.311	0.000	0.000	76.544	46.518	-4.817	MWD+IFR1+MS
20000.000	90.000	179.600	11008.997	78.045	0.000	77.060	-0.000	78.045	0.000	0.000	77.200	46.563	-4.739	MWD+IFR1+MS
20100.000	90.000	179.600	11008.997	78.778	0.000	77.712	-0.000	78.778	0.000	0.000	77.851	46.619	-4.665	MWD+IFR1+MS
20200.000	90.000	179.600	11008.997	79.511	0.000	78.366	-0.000	79.511	0.000	0.000	78.502	46.674	-4.594	MWD+IFR1+MS
20300.000	90.000	179.600	11008.997	80.243	0.000	79.027	-0.000	80.243	0.000	0.000	79.161	46.729	-4.524	MWD+IFR1+MS
20400.000	90.000	179.600	11008.997	80.981	0.000	79.689	-0.000	80.981	0.000	0.000	79.820	46.784	-4.456	MWD+IFR1+MS
20500.000	90.000	179.600	11008.997	81.713	0.000	80.351	-0.000	81.713	0.000	0.000	80.481	46.839	-4.391	MWD+IFR1+MS
20600.000	90.000	179.600	11008.997	82.450	0.000	81.015	-0.000	82.450	0.000	0.000	81.142	46.894	-4.327	MWD+IFR1+MS
20700.000	90.000	179.600	11008.997	83.193	0.000	81.679	-0.000	83.193	0.000	0.000	81.804	46.949	-4.266	MWD+IFR1+MS
20800.000	90.000	179.600	11008.997	83.929	0.000	82.350	-0.000	83.929	0.000	0.000	82.472	47.003	-4.206	MWD+IFR1+MS
20900.000	90.000	179.600	11008.997	84.670	0.000	83.015	-0.000	84.670	0.000	0.000	83.136	47.058	-4.148	MWD+IFR1+MS
21000.000	90.000	179.600	11008.997	85.411	0.000	83.687	-0.000	85.411	0.000	0.000	83.806	47.112	-4.092	MWD+IFR1+MS
21100.000	90.000	179.600	11008.997	86.151	0.000	84.360	-0.000	86.151	0.000	0.000	84.477	47.166	-4.037	MWD+IFR1+MS
21200.000	90.000	179.600	11008.997	86.896	0.000	85.033	-0.000	86.896	0.000	0.000	85.148	47.231	-3.984	MWD+IFR1+MS
21300.000	90.000	179.600	11008.997	87.636	0.000	85.713	-0.000	87.636	0.000	0.000	85.826	47.285	-3.932	MWD+IFR1+MS
21400.000	90.000	179.600	11008.997	88.380	0.000	86.387	-0.000	88.380	0.000	0.000	86.499	47.339	-3.882	MWD+IFR1+MS
21500.000	90.000	179.600	11008.997	89.124	0.000	87.067	-0.000	89.124	0.000	0.000	87.177	47.403	-3.833	MWD+IFR1+MS
21600.000	90.000	179.600	11008.997	89.872	0.000	87.748	-0.000	89.872	0.000	0.000	87.857	47.457	-3.785	MWD+IFR1+MS
21700.000	90.000	179.600	11008.997	90.615	0.000	88.430	-0.000	90.615	0.000	0.000	88.537	47.521	-3.739	MWD+IFR1+MS
21800.000	90.000	179.600	11008.997	91.362	0.000	89.111	-0.000	91.362	0.000	0.000	89.217	47.585	-3.694	MWD+IFR1+MS
21900.000	90.000	179.600	11008.997	92.109	0.000	89.799	-0.000	92.109	0.000	0.000	89.903	47.639	-3.649	MWD+IFR1+MS
22000.000	90.000	179.600	11008.997	92.860	0.000	90.482	-0.000	92.860	0.000	0.000	90.584	47.703	-3.607	MWD+IFR1+MS
22100.000	90.000	179.600	11008.997	93.606	0.000	91.170	-0.000	93.606	0.000	0.000	91.271	47.766	-3.565	MWD+IFR1+MS
22200.000	90.000	179.600	11008.997	94.356	0.000	91.859	-0.000	94.356	0.000	0.000	91.958	47.830	-3.524	MWD+IFR1+MS
22300.000	90.000	179.600	11008.997	95.105	0.000	92.547	-0.000	95.105	0.000	0.000	92.646	47.893	-3.484	MWD+IFR1+MS

22400.000	90.000	179.600	11008.997	95.854	0.000	93.237	-0.000	95.854	0.000	0.000	93.334	47.957	-3.445	MWD+IFR1+MS
22500.000	90.000	179.600	11008.997	96.607	0.000	93.931	-0.000	96.607	0.000	0.000	94.027	48.020	-3.407	MWD+IFR1+MS
22600.000	90.000	179.600	11008.997	97.355	0.000	94.621	-0.000	97.355	0.000	0.000	94.715	48.083	-3.370	MWD+IFR1+MS
22700.000	90.000	179.600	11008.997	98.107	0.000	95.316	-0.000	98.107	0.000	0.000	95.409	48.146	-3.334	MWD+IFR1+MS
22800.000	90.000	179.600	11008.997	98.858	0.000	96.012	-0.000	98.858	0.000	0.000	96.104	48.209	-3.299	MWD+IFR1+MS
22900.000	90.000	179.600	11008.997	99.614	0.000	96.707	-0.000	99.614	0.000	0.000	96.798	48.272	-3.264	MWD+IFR1+MS
23000.000	90.000	179.600	11008.997	100.349	0.000	97.403	-0.000	100.349	0.000	0.000	97.492	48.335	-3.230	MWD+IFR1+MS
23100.000	90.000	179.600	11008.997	101.094	0.000	98.104	-0.000	101.094	0.000	0.000	98.192	48.408	-3.197	MWD+IFR1+MS
23200.000	90.000	179.600	11008.997	101.833	0.000	98.800	-0.000	101.833	0.000	0.000	98.887	48.470	-3.165	MWD+IFR1+MS
23300.000	90.000	179.600	11008.997	102.616	0.000	99.501	-0.000	102.616	0.000	0.000	99.587	48.533	-3.133	MWD+IFR1+MS
23400.000	90.000	179.600	11008.997	103.344	0.000	100.177	-0.000	103.344	0.000	0.000	100.262	48.605	-3.105	MWD+IFR1+MS
23500.000	90.000	179.600	11008.997	104.115	0.000	100.874	-0.000	104.115	0.000	0.000	100.958	48.677	-3.075	MWD+IFR1+MS
23600.000	90.000	179.600	11008.997	104.881	0.000	101.565	-0.000	104.881	0.000	0.000	101.649	48.739	-3.046	MWD+IFR1+MS
23700.000	90.000	179.600	11008.997	105.641	0.000	102.301	-0.000	105.641	0.000	0.000	102.384	48.812	-3.015	MWD+IFR1+MS
23800.000	90.000	179.600	11008.997	106.395	0.000	102.983	-0.000	106.395	0.000	0.000	103.065	48.874	-2.988	MWD+IFR1+MS
23900.000	90.000	179.600	11008.997	107.145	0.000	103.709	-0.000	107.145	0.000	0.000	103.790	48.946	-2.959	MWD+IFR1+MS
24000.000	90.000	179.600	11008.997	107.889	0.000	104.430	-0.000	107.889	0.000	0.000	104.510	49.018	-2.931	MWD+IFR1+MS
24100.000	90.000	179.600	11008.997	108.674	0.000	105.099	-0.000	108.674	0.000	0.000	105.177	49.089	-2.907	MWD+IFR1+MS
24200.000	90.000	179.600	11008.997	109.407	0.000	105.810	-0.000	109.407	0.000	0.000	105.888	49.161	-2.880	MWD+IFR1+MS
24300.000	90.000	179.600	11008.997	110.182	0.000	106.517	-0.000	110.182	0.000	0.000	106.593	49.232	-2.855	MWD+IFR1+MS
24400.000	90.000	179.600	11008.997	110.950	0.000	107.219	-0.000	110.950	0.000	0.000	107.295	49.304	-2.830	MWD+IFR1+MS
24500.000	90.000	179.600	11008.997	111.714	0.000	107.962	-0.000	111.714	0.000	0.000	108.037	49.375	-2.803	MWD+IFR1+MS
24600.000	90.000	179.600	11008.997	112.472	0.000	108.655	-0.000	112.472	0.000	0.000	108.729	49.446	-2.780	MWD+IFR1+MS
24700.000	90.000	179.600	11008.997	113.225	0.000	109.389	-0.000	113.225	0.000	0.000	109.462	49.518	-2.755	MWD+IFR1+MS
24800.000	90.000	179.600	11008.997	113.974	0.000	110.073	-0.000	113.974	0.000	0.000	110.145	49.588	-2.733	MWD+IFR1+MS
24900.000	90.000	179.600	11008.997	114.717	0.000	110.797	-0.000	114.717	0.000	0.000	110.869	49.659	-2.710	MWD+IFR1+MS
25000.000	90.000	179.600	11008.997	115.499	0.000	111.517	-0.000	115.499	0.000	0.000	111.588	49.740	-2.687	MWD+IFR1+MS
25100.000	90.000	179.600	11008.997	116.276	0.000	112.232	-0.000	116.276	0.000	0.000	112.303	49.811	-2.665	MWD+IFR1+MS
25200.000	90.000	179.600	11008.997	117.004	0.000	112.943	-0.000	117.004	0.000	0.000	113.013	49.891	-2.644	MWD+IFR1+MS
25300.000	90.000	179.600	11008.997	117.771	0.000	113.649	-0.000	117.771	0.000	0.000	113.718	49.961	-2.623	MWD+IFR1+MS
25400.000	90.000	179.600	11008.997	118.533	0.000	114.395	-0.000	118.533	0.000	0.000	114.463	50.042	-2.600	MWD+IFR1+MS
25500.000	90.000	179.600	11008.997	119.290	0.000	115.092	-0.000	119.290	0.000	0.000	115.160	50.112	-2.581	MWD+IFR1+MS
25600.000	90.000	179.600	11008.997	120.083	0.000	115.829	-0.000	120.083	0.000	0.000	115.896	50.192	-2.560	MWD+IFR1+MS

25700.000	90.000	179.600	11008.997	120.830	0.000	116.517	-0.000	120.830	0.000	0.000	116.584	50.272	-2.542	MWD+IFR1+MS
25800.000	90.000	179.600	11008.997	121.614	0.000	117.245	-0.000	121.614	0.000	0.000	117.310	50.341	-2.522	MWD+IFR1+MS
25900.000	90.000	179.600	11008.997	122.352	0.000	117.968	-0.000	122.352	0.000	0.000	118.033	50.421	-2.502	MWD+IFR1+MS
26000.000	90.000	179.600	11008.997	123.126	0.000	118.686	-0.000	123.126	0.000	0.000	118.751	50.501	-2.484	MWD+IFR1+MS
26100.000	90.000	179.600	11008.997	123.895	0.000	119.400	-0.000	123.895	0.000	0.000	119.464	50.580	-2.465	MWD+IFR1+MS
26200.000	90.000	179.600	11008.997	124.660	0.000	120.152	-0.000	124.660	0.000	0.000	120.215	50.659	-2.446	MWD+IFR1+MS
26300.000	90.000	179.600	11008.997	125.419	0.000	120.858	-0.000	125.419	0.000	0.000	120.920	50.738	-2.429	MWD+IFR1+MS
26400.000	90.000	179.600	11008.997	126.174	0.000	121.600	-0.000	126.174	0.000	0.000	121.662	50.817	-2.411	MWD+IFR1+MS
26500.000	90.000	179.600	11008.997	126.965	0.000	122.297	-0.000	126.965	0.000	0.000	122.359	50.896	-2.394	MWD+IFR1+MS
26600.000	90.000	179.600	11008.997	127.711	0.000	123.031	-0.000	127.711	0.000	0.000	123.092	50.975	-2.377	MWD+IFR1+MS
26700.000	90.000	179.600	11008.997	128.491	0.000	123.761	-0.000	128.491	0.000	0.000	123.821	51.053	-2.360	MWD+IFR1+MS
26800.000	90.000	179.600	11008.997	129.267	0.000	124.486	-0.000	129.267	0.000	0.000	124.545	51.141	-2.344	MWD+IFR1+MS
26900.000	90.000	179.600	11008.997	130.000	0.000	125.207	-0.000	130.000	0.000	0.000	125.266	51.220	-2.328	MWD+IFR1+MS
27000.000	90.000	179.600	11008.997	130.767	0.000	125.924	-0.000	130.767	0.000	0.000	125.982	51.298	-2.312	MWD+IFR1+MS
27100.000	90.000	179.600	11008.997	131.529	0.000	126.637	-0.000	131.529	0.000	0.000	126.695	51.385	-2.297	MWD+IFR1+MS
27200.000	90.000	179.600	11008.997	132.325	0.000	127.385	-0.000	132.325	0.000	0.000	127.442	51.463	-2.280	MWD+IFR1+MS
27300.000	90.000	179.600	11008.997	133.079	0.000	128.090	-0.000	133.079	0.000	0.000	128.146	51.551	-2.266	MWD+IFR1+MS
27400.000	90.000	179.600	11008.997	133.866	0.000	128.829	-0.000	133.866	0.000	0.000	128.886	51.628	-2.250	MWD+IFR1+MS
27500.000	90.000	179.600	11008.997	134.611	0.000	129.565	-0.000	134.611	0.000	0.000	129.621	51.716	-2.235	MWD+IFR1+MS
27600.000	90.000	179.600	11008.997	135.388	0.000	130.296	-0.000	135.388	0.000	0.000	130.351	51.803	-2.221	MWD+IFR1+MS
27700.000	90.000	179.600	11008.997	136.162	0.000	131.023	-0.000	136.162	0.000	0.000	131.078	51.880	-2.207	MWD+IFR1+MS
27800.000	90.000	179.600	11008.997	136.931	0.000	131.746	-0.000	136.931	0.000	0.000	131.801	51.967	-2.193	MWD+IFR1+MS
27900.000	90.000	179.600	11008.997	137.695	0.000	132.466	-0.000	137.695	0.000	0.000	132.520	52.053	-2.179	MWD+IFR1+MS
28000.000	90.000	179.600	11008.997	138.456	0.000	133.219	-0.000	138.456	0.000	0.000	133.272	52.140	-2.165	MWD+IFR1+MS
28100.000	90.000	179.600	11008.997	139.212	0.000	133.930	-0.000	139.212	0.000	0.000	133.983	52.226	-2.152	MWD+IFR1+MS
28200.000	90.000	179.600	11008.997	140.000	0.000	134.675	-0.000	140.000	0.000	0.000	134.727	52.312	-2.138	MWD+IFR1+MS
28300.000	90.000	179.600	11008.997	140.748	0.000	135.415	-0.000	140.748	0.000	0.000	135.468	52.398	-2.125	MWD+IFR1+MS
28400.000	90.000	179.600	11008.997	141.527	0.000	136.115	-0.000	141.527	0.000	0.000	136.167	52.484	-2.113	MWD+IFR1+MS
28500.000	90.000	179.600	11008.997	142.302	0.000	136.848	-0.000	142.302	0.000	0.000	136.899	52.569	-2.100	MWD+IFR1+MS
28600.000	90.000	179.600	11008.997	143.073	0.000	137.577	-0.000	143.073	0.000	0.000	137.628	52.655	-2.088	MWD+IFR1+MS
28700.000	90.000	179.600	11008.997	143.840	0.000	138.338	-0.000	143.840	0.000	0.000	138.389	52.750	-2.074	MWD+IFR1+MS
28800.000	90.000	179.600	11008.997	144.603	0.000	139.059	-0.000	144.603	0.000	0.000	139.109	52.835	-2.063	MWD+IFR1+MS
28900.000	90.000	179.600	11008.997	145.396	0.000	139.777	-0.000	145.396	0.000	0.000	139.827	52.920	-2.051	MWD+IFR1+MS

28999.000	90.000	179.600	11008.997	146.151	0.000	140.526	-0.000	146.151	0.000	0.000	140.575	53.015	-2.039	MWD+IFR1+MS

Plan Targets Poker Lake Unit 20 DTD South 324H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 20	11300.20	440400.40	634366.80	7711.00	RECTANGLE
SHL 20	12224.36	439617.59	633776.78	7520.37	RECTANGLE
LTP 20	28899.15	422309.20	634468.60	7711.00	RECTANGLE
BHL 20	28999.09	422209.20	634469.10	7711.00	RECTANGLE

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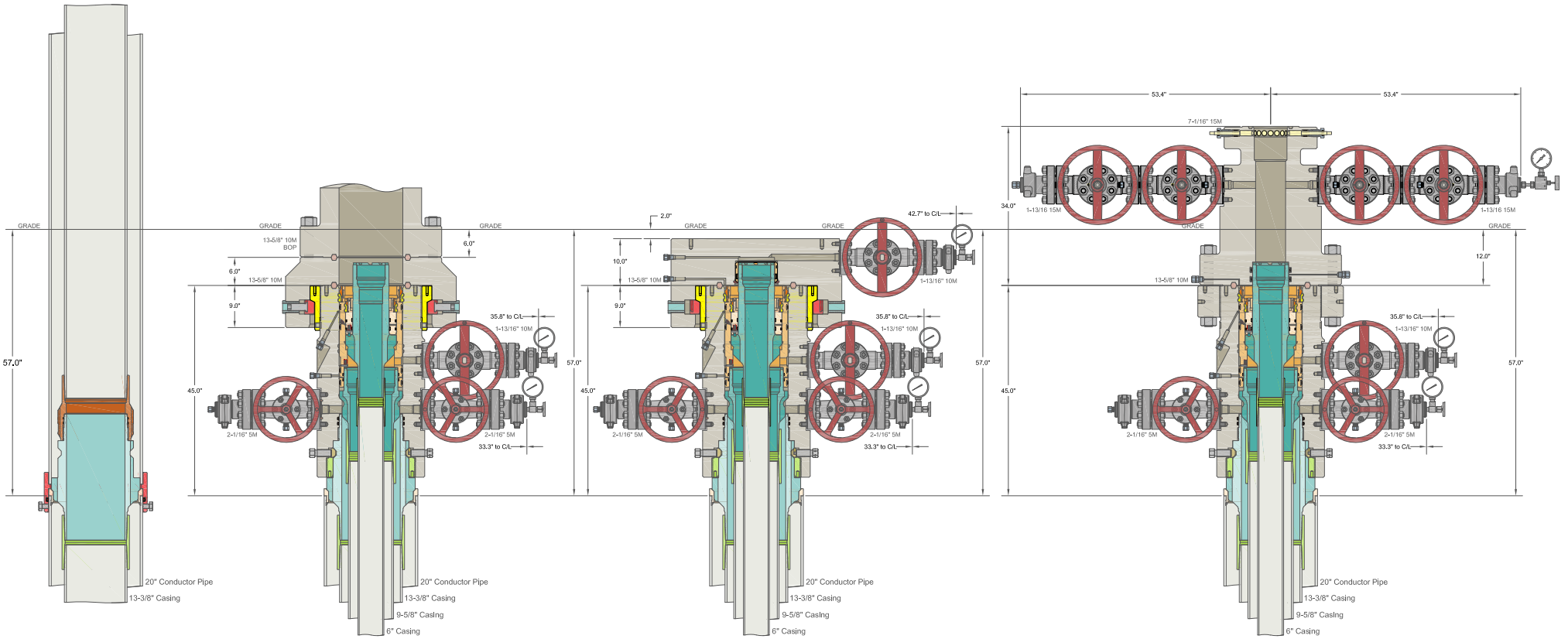

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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

(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

DRAWN	DLE	04NOV22
APPRV		

DRAWING NO. HBE0000833

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

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

Background

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

Supporting Documentation

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

Figure 1: Winch System attached to BOP Stack

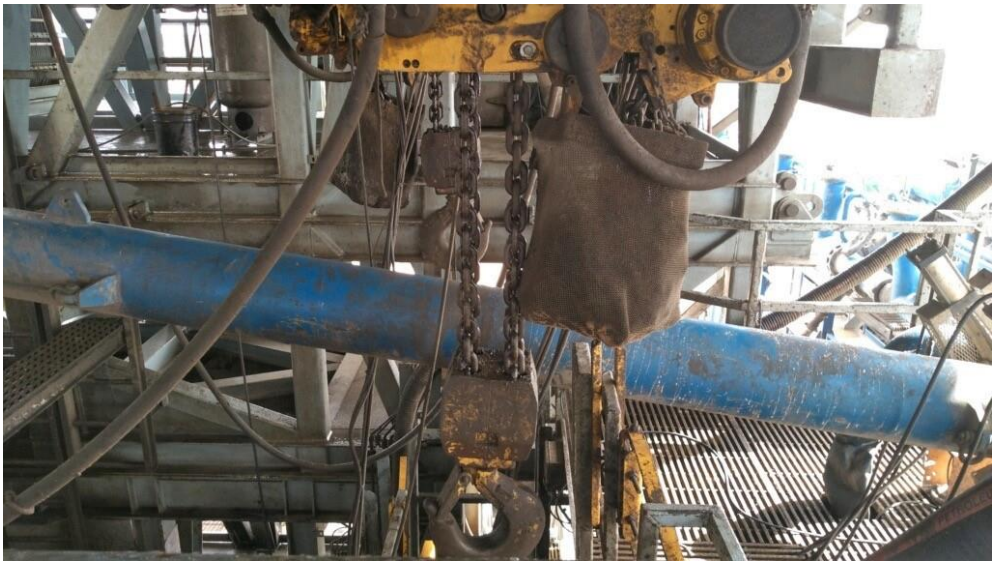


Figure 2: BOP Winch System

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

62 API STANDARD 53

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

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

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

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

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

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

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

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

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

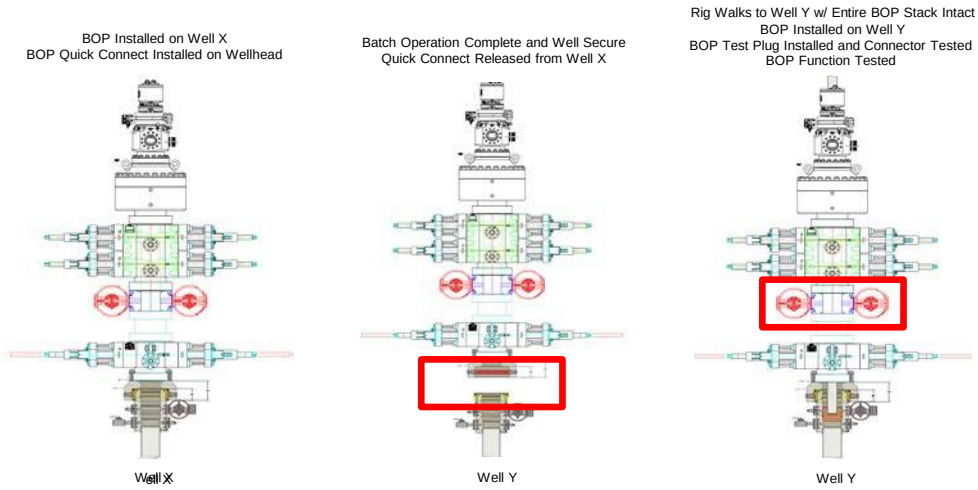
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

Procedures

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

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

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



Summary

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

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

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

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

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

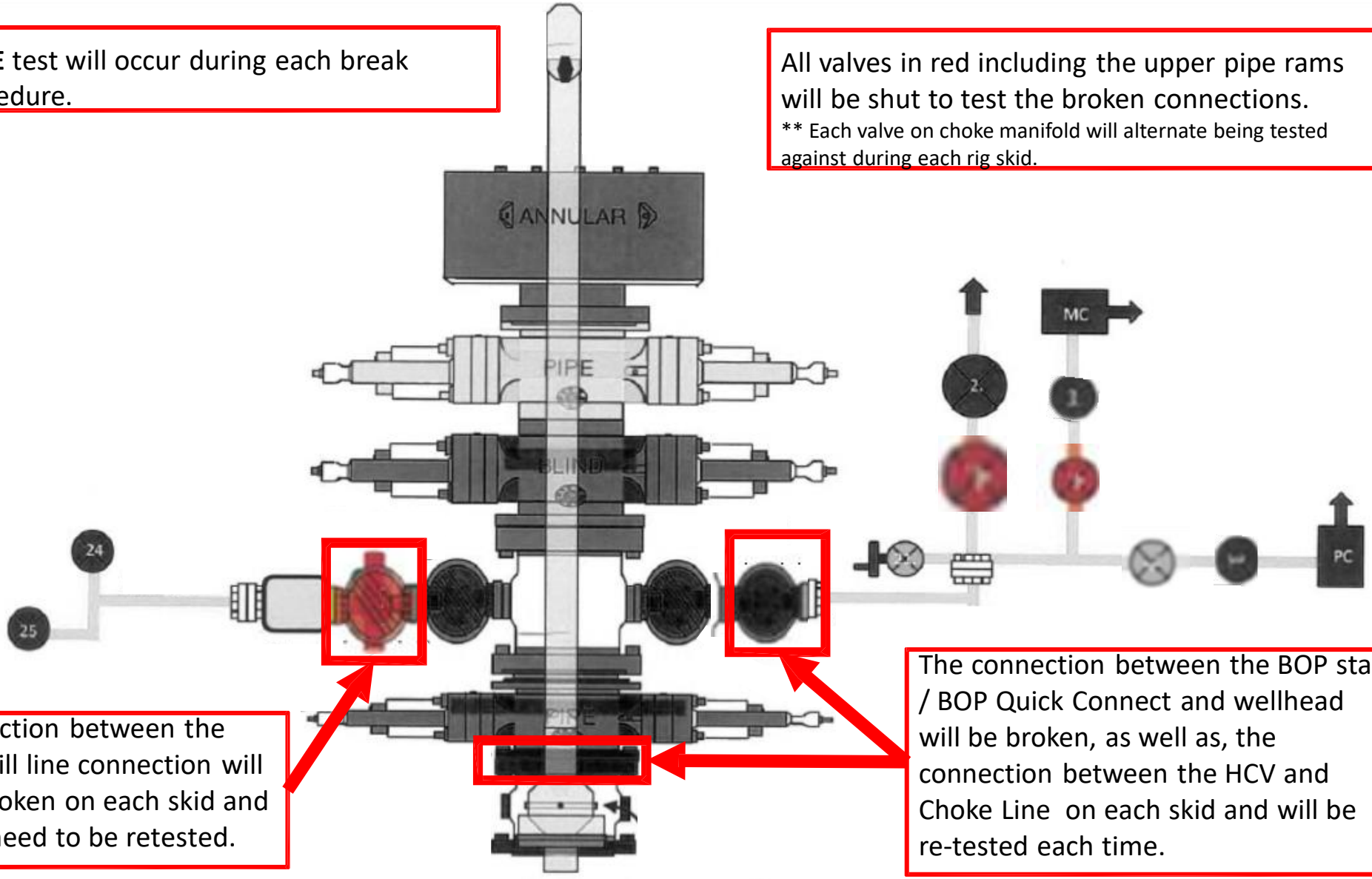
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

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

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

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

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



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

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

10,000 PSI Annular BOP Variance Request

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

1. Component and Preventer Compatibility Tables

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

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

2. Well Control Procedures

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

<u>General Procedure While Drilling</u>

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

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

General Procedure While Tripping

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

General Procedure While Running Production Casing

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

General Procedure With No Pipe In Hole (Open Hole)

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

General Procedures While Pulling BHA Through Stack

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

h. Regroup and identify forward plan

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

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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 369844

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 369844
	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.	8/7/2024