

Well Name: POKER LAKE UNIT 20 DTD	Well Location: T24S / R30E / SEC 20 / NENW / 32.207914 / -103.907732	County or Parish/State: EDDY / NM
Well Number: 123H	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: 2776440

Type of Submission: Notice of Intent      Type of Action: APD Change

Date Sundry Submitted: 02/22/2024      Time Sundry Submitted: 05:21

Date proposed operation will begin: 07/09/2024

**Procedure Description:** XTO Permian Operating LLC Respectfully submits a NOI to Change APD for the above well. We are changing the following for the well: Casing design, cement design, SHL, FTP, LTP, BHL, and proposed total depth. SHL: F/ 899' FNL & 1380' FWL Sec 20, T-24S, R-30E TO: 939' FNL & 1380' FWL Sec 20, T-24S, R-30E FTP: F/ 100' FSL & 1210' FWL TO: 100' FNL & 841' FWL PPP: F/ TO: 0' FSL & 817' FWL LTP: F/ 330' FNL & 1210' FWL TO: 2346' FNL & 841' FWL BHL: F/ 200' FNL & 1210' FWL Sec 32, T-23S, R-30E TO: 2446' FNL & 841' FWL Sec 5, T-25S, R-30E Proposed TD: F/ 31,849' MD; 10,642' TVD (Wolfcamp) TO: 28,726' MD; 10,706' TVD (Wolfcamp) Attachments: C-102 Drilling Plan Directional Plan MBS Diagram

NOI Attachments

Procedure Description

Poker\_Lake\_Unit\_20\_DTD\_123H\_Attachments\_20240226103444.pdf

Received by OCD: 5/9/2024 8:38:28 AM

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US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Conditions of Approval

Additional

Sec\_20\_24S\_30E\_NMP\_Sundry\_2776440\_Poker\_Lake\_Unit\_20\_DTD\_123H\_COAs\_20240404151505.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: SAMANTHA WEIS

Signed on: FEB 26, 2024 10:35 AM

Name: XTO PERMIAN OPERATING LLC

Title: Permitting Advisor

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRINGState: TX

Phone: (832) 625-7361

Email address: SAMANTHA.R.BARTNIK@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: 05/08/2024

Signature: Chris Walls

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**  
***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		5. Lease Serial No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

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

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

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

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

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

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

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

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

## SPECIFIC INSTRUCTIONS

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

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

## NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

**Additional Information**

**Additional Remarks**

Drilling Plan  
Directional Plan  
MBS Diagram

**Location of Well**

0. SHL: NENW / 899 FNL / 1380 FWL / TWSP: 24S / RANGE: 30E / SECTION: 20 / LAT: 32.207914 / LONG: -103.907732 ( TVD: 0 feet, MD: 0 feet )  
PPP: SWSW / 330 FSL / 1210 FWL / TWSP: 24S / RANGE: 30E / SECTION: 8 / LAT: 32.22537 / LONG: -103.9083 ( TVD: 10642 feet, MD: 16300 feet )  
PPP: SWSW / 100 FSL / 1210 FWL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.210657 / LONG: -103.908298 ( TVD: 10642 feet, MD: 11000 feet )  
PPP: SWSW / 330 FSL / 1210 FWL / TWSP: 24S / RANGE: 30E / SECTION: 5 / LAT: 32.23985 / LONG: -103.9083 ( TVD: 10642 feet, MD: 21600 feet )  
BHL: NWNW / 200 FNL / 1210 FWL / TWSP: 23S / RANGE: 30E / SECTION: 32 / LAT: 32.268019 / LONG: -103.908295 ( TVD: 10642 feet, MD: 31849 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating LLC
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 20 123H
<b>LOCATION:</b>	Sec 20-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2776440** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

### COA

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

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 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 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

**A. CASING**

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

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

**B. PRESSURE CONTROL**

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

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

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

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

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

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

APD ID # 10400089214

RP 618.013003.06-37

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

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

## First Take Point (FTP)

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

## Last Take Point (LTP)

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

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

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

XTO Energy Inc.  
PLU 20 Dog Town Draw 123H  
Projected TD: 28726.02' MD / 10706' TVD  
SHL: 939' FNL & 1380' FWL , Section 20, T24S, R30E  
BHL: 2446' FNL & 841' FWL , Section 5, T25S, R30E  
Eddy County, NM

**1. Geologic Name of Surface Formation**

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	782'	Water
Top of Salt	1185'	Water
Base of Salt	3378'	Water
Delaware	3572'	Water
Brushy Canyon	6070'	Water/Oil/Gas
Bone Spring	7366'	Water
1st Bone Spring	8352'	Water/Oil/Gas
2nd Bone Spring	9170'	Water/Oil/Gas
3rd Bone Spring	10264'	Water/Oil/Gas
Wolfcamp	10655'	Water/Oil/Gas
Wolfcamp X	10676'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>10706'</b>	<b>Water/Oil/Gas</b>

\*\*\* Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 882' (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 9899.63' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 28726.02 MD/TD and 6 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9599.63 feet).

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 882'	13.375	54.5	J-55	BTC	New	1.16	2.93	18.91
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.88	2.31	3.20
12.25	4000' – 9899.63'	9.625	40	HC L-80	BTC	New	1.36	1.77	3.88
8.5	0' – 9799.63'	6	26	P-110	Semi-Premium	New	1.17	2.26	1.64
8.5	9799.63' – 28726.02'	6	26	P-110	Semi-Premium	New	1.17	2.07	1.86

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



**Wellhead:**

*Permanent Wellhead – Multibowl System*

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

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

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

#### 4. Cement Program

##### **Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 882'**

Lead: 430 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft<sup>3</sup>/sx, 10.13 gal/sx water)  
 Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 Top of Cement: Surface  
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

##### **2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 9899.63'**

###### 1st Stage

Optional Lead: 1020 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)  
 TOC: Surface  
 Tail: 1110 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 TOC: Brushy Canyon @ 6070  
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

###### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft<sup>3</sup>/sx, 9.61 gal/sx water)  
 Tail: 2140 sxs Class C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 Top of Cement: 0  
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 9-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6070') 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 +/- 28726.02'**

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 9599.63 feet  
 Tail: 3170 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 10099.63 feet  
 Compressives: 12-hr = 800 psi 24 hr = 1500 psi

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

## 5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 4214 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

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

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

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

on each of the wells.

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

## 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 882'	17.5	FW/Native	8.4-8.9	35-40	NC
882' - 9899.63'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
9899.63' - 28726.02'	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 Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- 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 170 to 190 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 6569 psi.

## 10. Anticipated Starting Date and Duration of Operations

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

Well Plan Report - Poker Lake Unit 20 DTD South 123H

Measured Depth:	28726.02 ft
TVD RKB:	10706.00 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	439534.60 ft
Easting:	631787.50 ft
RKB:	3250.00 ft
Ground Level:	3218.00 ft
North Reference:	Grid
Convergence Angle:	0.23 Deg

Plan SectionsPoker Lake Unit 20 DTD South 123H

Measured		TVD		Build		Turn		Dogleg	
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Target
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1762.35	13.25	326.69	1756.46	63.70	-41.86	2.00	0.00	2.00	
5447.48	13.25	326.69	5343.54	769.40	-505.64	0.00	0.00	0.00	
6109.83	0.00	0.00	6000.00	833.10	-547.50	-2.00	0.00	2.00	
10099.63	0.00	0.00	9989.80	833.10	-547.50	0.00	0.00	0.00	
11224.63	90.00	179.68	10706.00	116.91	-543.48	8.00	0.00	8.00	
28626.38	90.00	179.68	10706.00	-17284.56	-445.68	0.00	0.00	0.00	LTP 3
28726.02	90.00	179.68	10706.00	-17384.20	-445.12	0.00	0.00	0.00	BHL 3

Position UncertaintyPoker Lake Unit 20 DTD South 123H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.346	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.373	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.405	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.442	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.483	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.529	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.578	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.631	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	326.688	1199.980	4.472	0.000	5.022	0.000	2.687	0.000	0.000	5.173	4.298	121.150	MWD+IFR1+MS
1300.000	4.000	326.688	1299.838	5.340	0.000	5.354	0.000	2.747	0.000	0.000	5.772	4.894	101.908	MWD+IFR1+MS
1400.000	6.000	326.688	1399.452	6.101	0.000	5.690	0.000	2.812	0.000	0.000	6.445	5.315	90.546	MWD+IFR1+MS
1500.000	8.000	326.688	1498.702	6.788	0.000	6.028	0.000	2.885	0.000	0.000	7.109	5.678	84.892	MWD+IFR1+MS
1600.000	10.000	326.688	1597.465	7.421	0.000	6.368	0.000	2.967	0.000	0.000	7.743	6.024	81.781	MWD+IFR1+MS
1700.000	12.000	326.688	1695.623	8.011	0.000	6.711	0.000	3.062	0.000	0.000	8.346	6.365	79.884	MWD+IFR1+MS
1762.350	13.247	326.688	1756.464	8.241	0.000	6.917	0.000	3.109	0.000	0.000	8.594	6.574	79.537	MWD+IFR1+MS
1800.000	13.247	326.688	1793.113	8.350	0.000	7.039	0.000	3.136	0.000	0.000	8.701	6.700	79.562	MWD+IFR1+MS
1900.000	13.247	326.688	1890.452	8.639	0.000	7.377	0.000	3.217	0.000	0.000	8.985	7.040	79.927	MWD+IFR1+MS
2000.000	13.247	326.688	1987.791	8.947	0.000	7.731	0.000	3.304	0.000	0.000	9.295	7.388	80.521	MWD+IFR1+MS
2100.000	13.247	326.688	2085.130	9.261	0.000	8.089	0.000	3.395	0.000	0.000	9.610	7.738	81.097	MWD+IFR1+MS
2200.000	13.247	326.688	2182.469	9.581	0.000	8.449	0.000	3.488	0.000	0.000	9.931	8.091	81.655	MWD+IFR1+MS
2300.000	13.247	326.688	2279.809	9.906	0.000	8.811	0.000	3.585	0.000	0.000	10.257	8.447	82.194	MWD+IFR1+MS
2400.000	13.247	326.688	2377.148	10.236	0.000	9.174	0.000	3.684	0.000	0.000	10.586	8.804	82.716	MWD+IFR1+MS
2500.000	13.247	326.688	2474.487	10.571	0.000	9.540	0.000	3.785	0.000	0.000	10.920	9.163	83.221	MWD+IFR1+MS
2600.000	13.247	326.688	2571.826	10.909	0.000	9.907	0.000	3.890	0.000	0.000	11.258	9.524	83.709	MWD+IFR1+MS
2700.000	13.247	326.688	2669.165	11.251	0.000	10.275	0.000	3.996	0.000	0.000	11.598	9.886	84.181	MWD+IFR1+MS
2800.000	13.247	326.688	2766.504	11.597	0.000	10.644	0.000	4.105	0.000	0.000	11.942	10.249	84.638	MWD+IFR1+MS
2900.000	13.247	326.688	2863.843	11.945	0.000	11.015	0.000	4.215	0.000	0.000	12.288	10.614	85.080	MWD+IFR1+MS

3000.000	13.247	326.688	2961.182	12.296	0.000	11.386	0.000	4.328	0.000	0.000	12.637	10.979	85.507	MWD+IFR1+MS
3100.000	13.247	326.688	3058.522	12.649	0.000	11.758	0.000	4.443	0.000	0.000	12.988	11.345	85.920	MWD+IFR1+MS
3200.000	13.247	326.688	3155.861	13.005	0.000	12.131	0.000	4.559	0.000	0.000	13.341	11.713	86.319	MWD+IFR1+MS
3300.000	13.247	326.688	3253.200	13.363	0.000	12.505	0.000	4.677	0.000	0.000	13.696	12.081	86.705	MWD+IFR1+MS
3400.000	13.247	326.688	3350.539	13.723	0.000	12.879	0.000	4.797	0.000	0.000	14.053	12.450	87.079	MWD+IFR1+MS
3500.000	13.247	326.688	3447.878	14.085	0.000	13.254	0.000	4.919	0.000	0.000	14.412	12.819	87.440	MWD+IFR1+MS
3600.000	13.247	326.688	3545.217	14.448	0.000	13.629	0.000	5.042	0.000	0.000	14.772	13.189	87.790	MWD+IFR1+MS
3700.000	13.247	326.688	3642.556	14.813	0.000	14.005	0.000	5.167	0.000	0.000	15.133	13.560	88.128	MWD+IFR1+MS
3800.000	13.247	326.688	3739.896	15.180	0.000	14.382	0.000	5.293	0.000	0.000	15.496	13.931	88.455	MWD+IFR1+MS
3900.000	13.247	326.688	3837.235	15.547	0.000	14.759	0.000	5.422	0.000	0.000	15.860	14.302	88.772	MWD+IFR1+MS
4000.000	13.247	326.688	3934.574	15.916	0.000	15.136	0.000	5.551	0.000	0.000	16.225	14.675	89.078	MWD+IFR1+MS
4100.000	13.247	326.688	4031.913	16.287	0.000	15.513	0.000	5.682	0.000	0.000	16.592	15.047	89.375	MWD+IFR1+MS
4200.000	13.247	326.688	4129.252	16.658	0.000	15.891	0.000	5.815	0.000	0.000	16.959	15.420	89.662	MWD+IFR1+MS
4300.000	13.247	326.688	4226.591	17.030	0.000	16.270	0.000	5.950	0.000	0.000	17.327	15.793	89.940	MWD+IFR1+MS
4400.000	13.247	326.688	4323.930	17.403	0.000	16.648	0.000	6.086	0.000	0.000	17.696	16.167	90.209	MWD+IFR1+MS
4500.000	13.247	326.688	4421.269	17.777	0.000	17.027	0.000	6.223	0.000	0.000	18.066	16.541	90.469	MWD+IFR1+MS
4600.000	13.247	326.688	4518.609	18.152	0.000	17.406	0.000	6.362	0.000	0.000	18.436	16.915	90.721	MWD+IFR1+MS
4700.000	13.247	326.688	4615.948	18.528	0.000	17.785	0.000	6.503	0.000	0.000	18.808	17.290	90.966	MWD+IFR1+MS
4800.000	13.247	326.688	4713.287	18.904	0.000	18.165	0.000	6.646	0.000	0.000	19.180	17.665	91.202	MWD+IFR1+MS
4900.000	13.247	326.688	4810.626	19.281	0.000	18.545	0.000	6.790	0.000	0.000	19.552	18.040	91.431	MWD+IFR1+MS
5000.000	13.247	326.688	4907.965	19.659	0.000	18.925	0.000	6.935	0.000	0.000	19.925	18.416	91.653	MWD+IFR1+MS
5100.000	13.247	326.688	5005.304	20.037	0.000	19.305	0.000	7.082	0.000	0.000	20.299	18.791	91.868	MWD+IFR1+MS
5200.000	13.247	326.688	5102.643	20.416	0.000	19.685	0.000	7.231	0.000	0.000	20.673	19.167	92.077	MWD+IFR1+MS
5300.000	13.247	326.688	5199.982	20.795	0.000	20.066	0.000	7.382	0.000	0.000	21.048	19.543	92.278	MWD+IFR1+MS
5400.000	13.247	326.688	5297.322	21.175	0.000	20.446	0.000	7.534	0.000	0.000	21.423	19.920	92.474	MWD+IFR1+MS
5447.477	13.247	326.688	5343.536	21.353	0.000	20.624	0.000	7.607	0.000	0.000	21.596	20.098	92.524	MWD+IFR1+MS
5500.000	12.197	326.688	5394.768	21.568	0.000	20.819	0.000	7.688	0.000	0.000	21.788	20.295	92.532	MWD+IFR1+MS
5600.000	10.197	326.688	5492.860	22.020	0.000	21.190	0.000	7.847	0.000	0.000	22.207	20.675	91.643	MWD+IFR1+MS
5700.000	8.197	326.688	5591.569	22.488	0.000	21.559	0.000	8.004	0.000	0.000	22.667	21.055	90.192	MWD+IFR1+MS
5800.000	6.197	326.688	5690.777	22.920	0.000	21.921	0.000	8.151	0.000	0.000	23.120	21.426	88.896	MWD+IFR1+MS
5900.000	4.197	326.688	5790.361	23.315	0.000	22.276	0.000	8.292	0.000	0.000	23.565	21.789	87.744	MWD+IFR1+MS
6000.000	2.197	326.688	5890.200	23.674	0.000	22.624	0.000	8.426	0.000	0.000	24.002	22.144	86.724	MWD+IFR1+MS
6109.827	0.000	0.000	6000.000	24.488	0.000	22.520	0.000	8.568	0.000	0.000	24.493	22.514	86.939	MWD+IFR1+MS



6200.000	0.000	0.000	6090.173	24.807	0.000	22.826	0.000	8.684	0.000	0.000	24.811	22.822	87.529	MWD+IFR1+MS
6300.000	0.000	0.000	6190.173	25.126	0.000	23.167	0.000	8.815	0.000	0.000	25.128	23.164	87.812	MWD+IFR1+MS
6400.000	0.000	0.000	6290.173	25.445	0.000	23.508	0.000	8.949	0.000	0.000	25.447	23.506	88.116	MWD+IFR1+MS
6500.000	0.000	0.000	6390.173	25.766	0.000	23.850	0.000	9.085	0.000	0.000	25.768	23.849	88.418	MWD+IFR1+MS
6600.000	0.000	0.000	6490.173	26.088	0.000	24.193	0.000	9.224	0.000	0.000	26.089	24.192	88.720	MWD+IFR1+MS
6700.000	0.000	0.000	6590.173	26.411	0.000	24.535	0.000	9.365	0.000	0.000	26.412	24.535	89.020	MWD+IFR1+MS
6800.000	0.000	0.000	6690.173	26.735	0.000	24.879	0.000	9.510	0.000	0.000	26.735	24.879	89.319	MWD+IFR1+MS
6900.000	0.000	0.000	6790.173	27.059	0.000	25.223	0.000	9.657	0.000	0.000	27.059	25.223	89.616	MWD+IFR1+MS
7000.000	0.000	0.000	6890.173	27.385	0.000	25.567	0.000	9.807	0.000	0.000	27.385	25.567	89.912	MWD+IFR1+MS
7100.000	0.000	0.000	6990.173	27.711	0.000	25.911	0.000	9.959	0.000	0.000	27.711	25.911	90.207	MWD+IFR1+MS
7200.000	0.000	0.000	7090.173	28.038	0.000	26.256	0.000	10.115	0.000	0.000	28.038	26.256	90.500	MWD+IFR1+MS
7300.000	0.000	0.000	7190.173	28.366	0.000	26.602	0.000	10.273	0.000	0.000	28.366	26.601	90.792	MWD+IFR1+MS
7400.000	0.000	0.000	7290.173	28.695	0.000	26.947	0.000	10.434	0.000	0.000	28.695	26.947	91.082	MWD+IFR1+MS
7500.000	0.000	0.000	7390.173	29.024	0.000	27.293	0.000	10.599	0.000	0.000	29.025	27.292	91.370	MWD+IFR1+MS
7600.000	0.000	0.000	7490.173	29.354	0.000	27.640	0.000	10.766	0.000	0.000	29.355	27.638	91.657	MWD+IFR1+MS
7700.000	0.000	0.000	7590.173	29.684	0.000	27.986	0.000	10.936	0.000	0.000	29.686	27.984	91.942	MWD+IFR1+MS
7800.000	0.000	0.000	7690.173	30.016	0.000	28.333	0.000	11.109	0.000	0.000	30.018	28.331	92.225	MWD+IFR1+MS
7900.000	0.000	0.000	7790.173	30.347	0.000	28.680	0.000	11.284	0.000	0.000	30.351	28.677	92.506	MWD+IFR1+MS
8000.000	0.000	0.000	7890.173	30.680	0.000	29.028	0.000	11.463	0.000	0.000	30.684	29.024	92.786	MWD+IFR1+MS
8100.000	0.000	0.000	7990.173	31.013	0.000	29.376	0.000	11.645	0.000	0.000	31.018	29.371	93.064	MWD+IFR1+MS
8200.000	0.000	0.000	8090.173	31.347	0.000	29.724	0.000	11.830	0.000	0.000	31.352	29.718	93.340	MWD+IFR1+MS
8300.000	0.000	0.000	8190.173	31.681	0.000	30.072	0.000	12.018	0.000	0.000	31.687	30.065	93.614	MWD+IFR1+MS
8400.000	0.000	0.000	8290.173	32.015	0.000	30.420	0.000	12.209	0.000	0.000	32.023	30.413	93.886	MWD+IFR1+MS
8500.000	0.000	0.000	8390.173	32.351	0.000	30.769	0.000	12.402	0.000	0.000	32.359	30.760	94.156	MWD+IFR1+MS
8600.000	0.000	0.000	8490.173	32.686	0.000	31.118	0.000	12.599	0.000	0.000	32.695	31.108	94.423	MWD+IFR1+MS
8700.000	0.000	0.000	8590.173	33.022	0.000	31.467	0.000	12.799	0.000	0.000	33.033	31.456	94.689	MWD+IFR1+MS
8800.000	0.000	0.000	8690.173	33.359	0.000	31.816	0.000	13.002	0.000	0.000	33.370	31.804	94.953	MWD+IFR1+MS
8900.000	0.000	0.000	8790.173	33.696	0.000	32.166	0.000	13.208	0.000	0.000	33.709	32.153	95.215	MWD+IFR1+MS
9000.000	0.000	0.000	8890.173	34.034	0.000	32.516	0.000	13.418	0.000	0.000	34.047	32.501	95.475	MWD+IFR1+MS
9100.000	0.000	0.000	8990.173	34.371	0.000	32.866	0.000	13.630	0.000	0.000	34.386	32.850	95.732	MWD+IFR1+MS
9200.000	0.000	0.000	9090.173	34.710	0.000	33.216	0.000	13.845	0.000	0.000	34.726	33.199	95.988	MWD+IFR1+MS
9300.000	0.000	0.000	9190.173	35.049	0.000	33.566	0.000	14.064	0.000	0.000	35.066	33.548	96.241	MWD+IFR1+MS
9400.000	0.000	0.000	9290.173	35.388	0.000	33.916	0.000	14.285	0.000	0.000	35.407	33.897	96.492	MWD+IFR1+MS

9500.000	0.000	0.000	9390.173	35.727	0.000	34.267	0.000	14.510	0.000	0.000	35.747	34.246	96.741	MWD+IFR1+MS
9600.000	0.000	0.000	9490.173	36.067	0.000	34.618	0.000	14.737	0.000	0.000	36.089	34.595	96.988	MWD+IFR1+MS
9700.000	0.000	0.000	9590.173	36.407	0.000	34.969	0.000	14.968	0.000	0.000	36.430	34.945	97.232	MWD+IFR1+MS
9800.000	0.000	0.000	9690.173	36.748	0.000	35.320	0.000	15.202	0.000	0.000	36.772	35.294	97.475	MWD+IFR1+MS
9900.000	0.000	0.000	9790.173	37.089	0.000	35.671	0.000	15.439	0.000	0.000	37.115	35.644	97.715	MWD+IFR1+MS
10000.000	0.000	0.000	9890.173	37.430	0.000	36.023	0.000	15.679	0.000	0.000	37.457	35.994	97.953	MWD+IFR1+MS
10099.627	0.000	0.000	9989.800	37.770	0.000	36.373	0.000	15.922	0.000	0.000	37.799	36.343	98.186	MWD+IFR1+MS
10200.000	8.030	179.678	10089.845	37.620	0.000	36.699	-0.000	16.176	0.000	0.000	38.352	36.671	97.035	MWD+IFR1+MS
10300.000	16.030	179.678	10187.569	37.749	0.000	36.992	-0.000	16.519	0.000	0.000	39.681	36.961	95.735	MWD+IFR1+MS
10400.000	24.030	179.678	10281.444	37.313	0.000	37.262	-0.000	17.031	0.000	0.000	40.856	37.226	95.293	MWD+IFR1+MS
10500.000	32.030	179.678	10369.643	36.387	0.000	37.506	-0.000	17.772	0.000	0.000	41.858	37.464	95.144	MWD+IFR1+MS
10600.000	40.030	179.678	10450.448	35.069	0.000	37.722	-0.000	18.765	0.000	0.000	42.676	37.673	95.133	MWD+IFR1+MS
10700.000	48.030	179.678	10522.288	33.491	0.000	37.908	-0.000	20.003	0.000	0.000	43.307	37.854	95.197	MWD+IFR1+MS
10800.000	56.030	179.678	10583.763	31.820	0.000	38.065	-0.000	21.452	0.000	0.000	43.760	38.006	95.297	MWD+IFR1+MS
10900.000	64.030	179.678	10633.677	30.261	0.000	38.193	-0.000	23.060	0.000	0.000	44.054	38.129	95.402	MWD+IFR1+MS
11000.000	72.030	179.678	10671.059	29.045	0.000	38.290	-0.000	24.768	0.000	0.000	44.216	38.224	95.479	MWD+IFR1+MS
11100.000	80.030	179.678	10695.181	28.403	0.000	38.358	-0.000	26.514	0.000	0.000	44.281	38.292	95.486	MWD+IFR1+MS
11200.000	88.030	179.678	10705.574	28.507	0.000	38.396	-0.000	28.241	0.000	0.000	44.291	38.332	95.375	MWD+IFR1+MS
11224.627	90.000	179.678	10705.997	28.318	0.000	38.398	-0.000	28.318	0.000	0.000	44.291	38.336	95.319	MWD+IFR1+MS
11300.000	90.000	179.678	10705.997	28.471	0.000	38.410	-0.000	28.471	0.000	0.000	44.289	38.352	95.146	MWD+IFR1+MS
11400.000	90.000	179.678	10705.997	28.671	0.000	38.444	-0.000	28.671	0.000	0.000	44.288	38.390	94.929	MWD+IFR1+MS
11500.000	90.000	179.678	10705.997	28.892	0.000	38.493	-0.000	28.892	0.000	0.000	44.287	38.444	94.722	MWD+IFR1+MS
11600.000	90.000	179.678	10705.997	29.133	0.000	38.557	-0.000	29.133	0.000	0.000	44.287	38.513	94.523	MWD+IFR1+MS
11700.000	90.000	179.678	10705.997	29.393	0.000	38.637	-0.000	29.393	0.000	0.000	44.288	38.597	94.330	MWD+IFR1+MS
11800.000	90.000	179.678	10705.997	29.671	0.000	38.732	-0.000	29.671	0.000	0.000	44.290	38.695	94.143	MWD+IFR1+MS
11900.000	90.000	179.678	10705.997	29.967	0.000	38.841	-0.000	29.967	0.000	0.000	44.292	38.808	93.959	MWD+IFR1+MS
12000.000	90.000	179.678	10705.997	30.281	0.000	38.965	-0.000	30.281	0.000	0.000	44.296	38.936	93.780	MWD+IFR1+MS
12100.000	90.000	179.678	10705.997	30.612	0.000	39.104	-0.000	30.612	0.000	0.000	44.300	39.078	93.602	MWD+IFR1+MS
12200.000	90.000	179.678	10705.997	30.959	0.000	39.257	-0.000	30.959	0.000	0.000	44.304	39.234	93.425	MWD+IFR1+MS
12300.000	90.000	179.678	10705.997	31.322	0.000	39.425	-0.000	31.322	0.000	0.000	44.310	39.404	93.248	MWD+IFR1+MS
12400.000	90.000	179.678	10705.997	31.700	0.000	39.606	-0.000	31.700	0.000	0.000	44.316	39.589	93.068	MWD+IFR1+MS
12500.000	90.000	179.678	10705.997	32.092	0.000	39.802	-0.000	32.092	0.000	0.000	44.323	39.787	92.885	MWD+IFR1+MS
12600.000	90.000	179.678	10705.997	32.499	0.000	40.011	-0.000	32.499	0.000	0.000	44.330	39.998	92.697	MWD+IFR1+MS

12700.000	90.000	179.678	10705.997	32.920	0.000	40.233	-0.000	32.920	0.000	0.000	44.338	40.223	92.499	MWD+IFR1+MS
12800.000	90.000	179.678	10705.997	33.354	0.000	40.469	-0.000	33.354	0.000	0.000	44.347	40.461	92.290	MWD+IFR1+MS
12900.000	90.000	179.678	10705.997	33.801	0.000	40.718	-0.000	33.801	0.000	0.000	44.357	40.712	92.065	MWD+IFR1+MS
13000.000	90.000	179.678	10705.997	34.259	0.000	40.980	-0.000	34.259	0.000	0.000	44.367	40.975	91.817	MWD+IFR1+MS
13100.000	90.000	179.678	10705.997	34.730	0.000	41.254	-0.000	34.730	0.000	0.000	44.378	41.251	91.540	MWD+IFR1+MS
13200.000	90.000	179.678	10705.997	35.211	0.000	41.541	-0.000	35.211	0.000	0.000	44.390	41.539	91.221	MWD+IFR1+MS
13300.000	90.000	179.678	10705.997	35.704	0.000	41.839	-0.000	35.704	0.000	0.000	44.403	41.838	90.842	MWD+IFR1+MS
13400.000	90.000	179.678	10705.997	36.206	0.000	42.150	-0.000	36.206	0.000	0.000	44.416	42.150	90.376	MWD+IFR1+MS
13500.000	90.000	179.678	10705.997	36.719	0.000	42.472	-0.000	36.719	0.000	0.000	44.430	42.472	89.774	MWD+IFR1+MS
13600.000	90.000	179.678	10705.997	37.241	0.000	42.805	-0.000	37.241	0.000	0.000	44.446	42.805	88.951	MWD+IFR1+MS
13700.000	90.000	179.678	10705.997	37.772	0.000	43.149	-0.000	37.772	0.000	0.000	44.463	43.148	87.728	MWD+IFR1+MS
13800.000	90.000	179.678	10705.997	38.312	0.000	43.504	-0.000	38.312	0.000	0.000	44.483	43.499	85.676	MWD+IFR1+MS
13900.000	90.000	179.678	10705.997	38.860	0.000	43.870	-0.000	38.860	0.000	0.000	44.508	43.856	81.480	MWD+IFR1+MS
14000.000	90.000	179.678	10705.997	39.416	0.000	44.245	-0.000	39.416	0.000	0.000	44.555	44.202	69.268	MWD+IFR1+MS
14100.000	90.000	179.678	10705.997	39.980	0.000	44.631	-0.000	39.980	0.000	0.000	44.728	44.433	34.665	MWD+IFR1+MS
14200.000	90.000	179.678	10705.997	40.551	0.000	45.027	-0.000	40.551	0.000	0.000	45.076	44.499	16.683	MWD+IFR1+MS
14300.000	90.000	179.678	10705.997	41.129	0.000	45.431	-0.000	41.129	0.000	0.000	45.469	44.530	11.207	MWD+IFR1+MS
14400.000	90.000	179.678	10705.997	41.714	0.000	45.845	-0.000	41.714	0.000	0.000	45.878	44.555	8.752	MWD+IFR1+MS
14500.000	90.000	179.678	10705.997	42.306	0.000	46.269	-0.000	42.306	0.000	0.000	46.299	44.577	7.365	MWD+IFR1+MS
14600.000	90.000	179.678	10705.997	42.904	0.000	46.700	-0.000	42.904	0.000	0.000	46.729	44.599	6.468	MWD+IFR1+MS
14700.000	90.000	179.678	10705.997	43.507	0.000	47.140	-0.000	43.507	0.000	0.000	47.169	44.621	5.835	MWD+IFR1+MS
14800.000	90.000	179.678	10705.997	44.116	0.000	47.589	-0.000	44.116	0.000	0.000	47.617	44.643	5.362	MWD+IFR1+MS
14900.000	90.000	179.678	10705.997	44.731	0.000	48.045	-0.000	44.731	0.000	0.000	48.074	44.665	4.992	MWD+IFR1+MS
15000.000	90.000	179.678	10705.997	45.351	0.000	48.510	-0.000	45.351	0.000	0.000	48.538	44.688	4.692	MWD+IFR1+MS
15100.000	90.000	179.678	10705.997	45.976	0.000	48.982	-0.000	45.976	0.000	0.000	49.010	44.711	4.444	MWD+IFR1+MS
15200.000	90.000	179.678	10705.997	46.606	0.000	49.461	-0.000	46.606	0.000	0.000	49.489	44.735	4.232	MWD+IFR1+MS
15300.000	90.000	179.678	10705.997	47.241	0.000	49.947	-0.000	47.241	0.000	0.000	49.976	44.759	4.050	MWD+IFR1+MS
15400.000	90.000	179.678	10705.997	47.880	0.000	50.440	-0.000	47.880	0.000	0.000	50.469	44.784	3.890	MWD+IFR1+MS
15500.000	90.000	179.678	10705.997	48.523	0.000	50.940	-0.000	48.523	0.000	0.000	50.969	44.809	3.748	MWD+IFR1+MS
15600.000	90.000	179.678	10705.997	49.170	0.000	51.447	-0.000	49.170	0.000	0.000	51.476	44.835	3.620	MWD+IFR1+MS
15700.000	90.000	179.678	10705.997	49.822	0.000	51.960	-0.000	49.822	0.000	0.000	51.989	44.862	3.505	MWD+IFR1+MS
15800.000	90.000	179.678	10705.997	50.477	0.000	52.479	-0.000	50.477	0.000	0.000	52.509	44.889	3.400	MWD+IFR1+MS
15900.000	90.000	179.678	10705.997	51.136	0.000	53.004	-0.000	51.136	0.000	0.000	53.034	44.916	3.303	MWD+IFR1+MS

16000.000	90.000	179.678	10705.997	51.798	0.000	53.535	-0.000	51.798	0.000	0.000	53.565	44.944	3.214	MWD+IFR1+MS
16100.000	90.000	179.678	10705.997	52.464	0.000	54.071	-0.000	52.464	0.000	0.000	54.101	44.973	3.132	MWD+IFR1+MS
16200.000	90.000	179.678	10705.997	53.132	0.000	54.613	-0.000	53.132	0.000	0.000	54.643	45.002	3.055	MWD+IFR1+MS
16300.000	90.000	179.678	10705.997	53.805	0.000	55.160	-0.000	53.805	0.000	0.000	55.191	45.032	2.982	MWD+IFR1+MS
16400.000	90.000	179.678	10705.997	54.480	0.000	55.712	-0.000	54.480	0.000	0.000	55.743	45.062	2.915	MWD+IFR1+MS
16500.000	90.000	179.678	10705.997	55.158	0.000	56.270	-0.000	55.158	0.000	0.000	56.301	45.093	2.851	MWD+IFR1+MS
16600.000	90.000	179.678	10705.997	55.838	0.000	56.832	-0.000	55.838	0.000	0.000	56.863	45.125	2.790	MWD+IFR1+MS
16700.000	90.000	179.678	10705.997	56.522	0.000	57.399	-0.000	56.522	0.000	0.000	57.430	45.157	2.733	MWD+IFR1+MS
16800.000	90.000	179.678	10705.997	57.208	0.000	57.970	-0.000	57.208	0.000	0.000	58.001	45.189	2.678	MWD+IFR1+MS
16900.000	90.000	179.678	10705.997	57.896	0.000	58.546	-0.000	57.896	0.000	0.000	58.577	45.222	2.626	MWD+IFR1+MS
17000.000	90.000	179.678	10705.997	58.587	0.000	59.126	-0.000	58.587	0.000	0.000	59.158	45.256	2.577	MWD+IFR1+MS
17100.000	90.000	179.678	10705.997	59.281	0.000	59.711	-0.000	59.281	0.000	0.000	59.742	45.290	2.529	MWD+IFR1+MS
17200.000	90.000	179.678	10705.997	59.976	0.000	60.299	-0.000	59.976	0.000	0.000	60.331	45.325	2.484	MWD+IFR1+MS
17300.000	90.000	179.678	10705.997	60.674	0.000	60.892	-0.000	60.674	0.000	0.000	60.923	45.360	2.440	MWD+IFR1+MS
17400.000	90.000	179.678	10705.997	61.374	0.000	61.488	-0.000	61.374	0.000	0.000	61.519	45.396	2.398	MWD+IFR1+MS
17500.000	90.000	179.678	10705.997	62.076	0.000	62.088	-0.000	62.076	0.000	0.000	62.119	45.432	2.358	MWD+IFR1+MS
17600.000	90.000	179.678	10705.997	62.780	0.000	62.691	-0.000	62.780	0.000	0.000	62.723	45.469	2.319	MWD+IFR1+MS
17700.000	90.000	179.678	10705.997	63.485	0.000	63.298	-0.000	63.485	0.000	0.000	63.330	45.506	2.282	MWD+IFR1+MS
17800.000	90.000	179.678	10705.997	64.193	0.000	63.909	-0.000	64.193	0.000	0.000	63.940	45.544	2.245	MWD+IFR1+MS
17900.000	90.000	179.678	10705.997	64.902	0.000	64.522	-0.000	64.902	0.000	0.000	64.554	45.583	2.210	MWD+IFR1+MS
18000.000	90.000	179.678	10705.997	65.613	0.000	65.139	-0.000	65.613	0.000	0.000	65.171	45.622	2.177	MWD+IFR1+MS
18100.000	90.000	179.678	10705.997	66.326	0.000	65.759	-0.000	66.326	0.000	0.000	65.791	45.661	2.144	MWD+IFR1+MS
18200.000	90.000	179.678	10705.997	67.041	0.000	66.382	-0.000	67.041	0.000	0.000	66.414	45.702	2.112	MWD+IFR1+MS
18300.000	90.000	179.678	10705.997	67.756	0.000	67.009	-0.000	67.756	0.000	0.000	67.040	45.742	2.081	MWD+IFR1+MS
18400.000	90.000	179.678	10705.997	68.474	0.000	67.638	-0.000	68.474	0.000	0.000	67.669	45.783	2.052	MWD+IFR1+MS
18500.000	90.000	179.678	10705.997	69.193	0.000	68.269	-0.000	69.193	0.000	0.000	68.301	45.825	2.023	MWD+IFR1+MS
18600.000	90.000	179.678	10705.997	69.913	0.000	68.904	-0.000	69.913	0.000	0.000	68.935	45.867	1.994	MWD+IFR1+MS
18700.000	90.000	179.678	10705.997	70.635	0.000	69.541	-0.000	70.635	0.000	0.000	69.572	45.910	1.967	MWD+IFR1+MS
18800.000	90.000	179.678	10705.997	71.358	0.000	70.180	-0.000	71.358	0.000	0.000	70.212	45.953	1.940	MWD+IFR1+MS
18900.000	90.000	179.678	10705.997	72.082	0.000	70.823	-0.000	72.082	0.000	0.000	70.854	45.997	1.914	MWD+IFR1+MS
19000.000	90.000	179.678	10705.997	72.808	0.000	71.467	-0.000	72.808	0.000	0.000	71.498	46.041	1.889	MWD+IFR1+MS
19100.000	90.000	179.678	10705.997	73.534	0.000	72.114	-0.000	73.534	0.000	0.000	72.145	46.086	1.864	MWD+IFR1+MS
19200.000	90.000	179.678	10705.997	74.262	0.000	72.763	-0.000	74.262	0.000	0.000	72.794	46.131	1.840	MWD+IFR1+MS



19300.000	90.000	179.678	10705.997	74.991	0.000	73.415	-0.000	74.991	0.000	0.000	73.446	46.177	1.817	MWD+IFR1+MS
19400.000	90.000	179.678	10705.997	75.722	0.000	74.069	-0.000	75.722	0.000	0.000	74.099	46.223	1.794	MWD+IFR1+MS
19500.000	90.000	179.678	10705.997	76.453	0.000	74.724	-0.000	76.453	0.000	0.000	74.755	46.270	1.772	MWD+IFR1+MS
19600.000	90.000	179.678	10705.997	77.185	0.000	75.382	-0.000	77.185	0.000	0.000	75.413	46.317	1.750	MWD+IFR1+MS
19700.000	90.000	179.678	10705.997	77.919	0.000	76.042	-0.000	77.919	0.000	0.000	76.073	46.365	1.729	MWD+IFR1+MS
19800.000	90.000	179.678	10705.997	78.653	0.000	76.704	-0.000	78.653	0.000	0.000	76.735	46.414	1.708	MWD+IFR1+MS
19900.000	90.000	179.678	10705.997	79.388	0.000	77.368	-0.000	79.388	0.000	0.000	77.398	46.463	1.688	MWD+IFR1+MS
20000.000	90.000	179.678	10705.997	80.125	0.000	78.033	-0.000	80.125	0.000	0.000	78.064	46.512	1.668	MWD+IFR1+MS
20100.000	90.000	179.678	10705.997	80.862	0.000	78.701	-0.000	80.862	0.000	0.000	78.731	46.562	1.648	MWD+IFR1+MS
20200.000	90.000	179.678	10705.997	81.600	0.000	79.370	-0.000	81.600	0.000	0.000	79.400	46.612	1.629	MWD+IFR1+MS
20300.000	90.000	179.678	10705.997	82.339	0.000	80.041	-0.000	82.339	0.000	0.000	80.071	46.663	1.610	MWD+IFR1+MS
20400.000	90.000	179.678	10705.997	83.078	0.000	80.714	-0.000	83.078	0.000	0.000	80.744	46.714	1.592	MWD+IFR1+MS
20500.000	90.000	179.678	10705.997	83.819	0.000	81.388	-0.000	83.819	0.000	0.000	81.418	46.766	1.574	MWD+IFR1+MS
20600.000	90.000	179.678	10705.997	84.560	0.000	82.064	-0.000	84.560	0.000	0.000	82.094	46.818	1.557	MWD+IFR1+MS
20700.000	90.000	179.678	10705.997	85.303	0.000	82.741	-0.000	85.303	0.000	0.000	82.771	46.871	1.540	MWD+IFR1+MS
20800.000	90.000	179.678	10705.997	86.046	0.000	83.420	-0.000	86.046	0.000	0.000	83.450	46.924	1.523	MWD+IFR1+MS
20900.000	90.000	179.678	10705.997	86.789	0.000	84.101	-0.000	86.789	0.000	0.000	84.130	46.978	1.506	MWD+IFR1+MS
21000.000	90.000	179.678	10705.997	87.534	0.000	84.783	-0.000	87.534	0.000	0.000	84.812	47.032	1.490	MWD+IFR1+MS
21100.000	90.000	179.678	10705.997	88.279	0.000	85.466	-0.000	88.279	0.000	0.000	85.495	47.087	1.474	MWD+IFR1+MS
21200.000	90.000	179.678	10705.997	89.024	0.000	86.151	-0.000	89.024	0.000	0.000	86.180	47.142	1.458	MWD+IFR1+MS
21300.000	90.000	179.678	10705.997	89.771	0.000	86.837	-0.000	89.771	0.000	0.000	86.866	47.198	1.443	MWD+IFR1+MS
21400.000	90.000	179.678	10705.997	90.518	0.000	87.524	-0.000	90.518	0.000	0.000	87.553	47.254	1.428	MWD+IFR1+MS
21500.000	90.000	179.678	10705.997	91.266	0.000	88.213	-0.000	91.266	0.000	0.000	88.242	47.311	1.413	MWD+IFR1+MS
21600.000	90.000	179.678	10705.997	92.014	0.000	88.903	-0.000	92.014	0.000	0.000	88.931	47.368	1.399	MWD+IFR1+MS
21700.000	90.000	179.678	10705.997	92.763	0.000	89.594	-0.000	92.763	0.000	0.000	89.622	47.426	1.384	MWD+IFR1+MS
21800.000	90.000	179.678	10705.997	93.512	0.000	90.286	-0.000	93.512	0.000	0.000	90.315	47.484	1.370	MWD+IFR1+MS
21900.000	90.000	179.678	10705.997	94.262	0.000	90.980	-0.000	94.262	0.000	0.000	91.008	47.542	1.357	MWD+IFR1+MS
22000.000	90.000	179.678	10705.997	95.013	0.000	91.674	-0.000	95.013	0.000	0.000	91.703	47.601	1.343	MWD+IFR1+MS
22100.000	90.000	179.678	10705.997	95.764	0.000	92.370	-0.000	95.764	0.000	0.000	92.398	47.661	1.330	MWD+IFR1+MS
22200.000	90.000	179.678	10705.997	96.516	0.000	93.067	-0.000	96.516	0.000	0.000	93.095	47.721	1.317	MWD+IFR1+MS
22300.000	90.000	179.678	10705.997	97.268	0.000	93.765	-0.000	97.268	0.000	0.000	93.793	47.781	1.304	MWD+IFR1+MS
22400.000	90.000	179.678	10705.997	98.021	0.000	94.464	-0.000	98.021	0.000	0.000	94.492	47.842	1.291	MWD+IFR1+MS
22500.000	90.000	179.678	10705.997	98.774	0.000	95.164	-0.000	98.774	0.000	0.000	95.192	47.903	1.279	MWD+IFR1+MS

22600.000	90.000	179.678	10705.997	99.528	0.000	95.865	-0.000	99.528	0.000	0.000	95.893	47.965	1.266	MWD+IFR1+MS
22700.000	90.000	179.678	10705.997	100.282	0.000	96.567	-0.000	100.282	0.000	0.000	96.595	48.027	1.254	MWD+IFR1+MS
22800.000	90.000	179.678	10705.997	101.037	0.000	97.270	-0.000	101.037	0.000	0.000	97.298	48.090	1.243	MWD+IFR1+MS
22900.000	90.000	179.678	10705.997	101.792	0.000	97.974	-0.000	101.792	0.000	0.000	98.001	48.153	1.231	MWD+IFR1+MS
23000.000	90.000	179.678	10705.997	102.548	0.000	98.679	-0.000	102.548	0.000	0.000	98.706	48.216	1.219	MWD+IFR1+MS
23100.000	90.000	179.678	10705.997	103.304	0.000	99.385	-0.000	103.304	0.000	0.000	99.412	48.280	1.208	MWD+IFR1+MS
23200.000	90.000	179.678	10705.997	104.060	0.000	100.091	-0.000	104.060	0.000	0.000	100.118	48.345	1.197	MWD+IFR1+MS
23300.000	90.000	179.678	10705.997	104.817	0.000	100.799	-0.000	104.817	0.000	0.000	100.826	48.410	1.186	MWD+IFR1+MS
23400.000	90.000	179.678	10705.997	105.574	0.000	101.507	-0.000	105.574	0.000	0.000	101.534	48.475	1.175	MWD+IFR1+MS
23500.000	90.000	179.678	10705.997	106.332	0.000	102.216	-0.000	106.332	0.000	0.000	102.243	48.541	1.164	MWD+IFR1+MS
23600.000	90.000	179.678	10705.997	107.090	0.000	102.926	-0.000	107.090	0.000	0.000	102.953	48.607	1.154	MWD+IFR1+MS
23700.000	90.000	179.678	10705.997	107.848	0.000	103.637	-0.000	107.848	0.000	0.000	103.663	48.674	1.144	MWD+IFR1+MS
23800.000	90.000	179.678	10705.997	108.607	0.000	104.348	-0.000	108.607	0.000	0.000	104.375	48.741	1.133	MWD+IFR1+MS
23900.000	90.000	179.678	10705.997	109.366	0.000	105.061	-0.000	109.366	0.000	0.000	105.087	48.808	1.123	MWD+IFR1+MS
24000.000	90.000	179.678	10705.997	110.126	0.000	105.774	-0.000	110.126	0.000	0.000	105.800	48.876	1.113	MWD+IFR1+MS
24100.000	90.000	179.678	10705.997	110.886	0.000	106.487	-0.000	110.886	0.000	0.000	106.513	48.945	1.104	MWD+IFR1+MS
24200.000	90.000	179.678	10705.997	111.646	0.000	107.202	-0.000	111.646	0.000	0.000	107.228	49.013	1.094	MWD+IFR1+MS
24300.000	90.000	179.678	10705.997	112.407	0.000	107.917	-0.000	112.407	0.000	0.000	107.943	49.083	1.085	MWD+IFR1+MS
24400.000	90.000	179.678	10705.997	113.168	0.000	108.633	-0.000	113.168	0.000	0.000	108.659	49.152	1.075	MWD+IFR1+MS
24500.000	90.000	179.678	10705.997	113.929	0.000	109.350	-0.000	113.929	0.000	0.000	109.375	49.222	1.066	MWD+IFR1+MS
24600.000	90.000	179.678	10705.997	114.690	0.000	110.067	-0.000	114.690	0.000	0.000	110.092	49.293	1.057	MWD+IFR1+MS
24700.000	90.000	179.678	10705.997	115.452	0.000	110.785	-0.000	115.452	0.000	0.000	110.810	49.364	1.048	MWD+IFR1+MS
24800.000	90.000	179.678	10705.997	116.214	0.000	111.503	-0.000	116.214	0.000	0.000	111.528	49.435	1.039	MWD+IFR1+MS
24900.000	90.000	179.678	10705.997	116.977	0.000	112.222	-0.000	116.977	0.000	0.000	112.247	49.507	1.030	MWD+IFR1+MS
25000.000	90.000	179.678	10705.997	117.740	0.000	112.942	-0.000	117.740	0.000	0.000	112.967	49.579	1.022	MWD+IFR1+MS
25100.000	90.000	179.678	10705.997	118.503	0.000	113.662	-0.000	118.503	0.000	0.000	113.687	49.651	1.013	MWD+IFR1+MS
25200.000	90.000	179.678	10705.997	119.266	0.000	114.383	-0.000	119.266	0.000	0.000	114.408	49.724	1.005	MWD+IFR1+MS
25300.000	90.000	179.678	10705.997	120.030	0.000	115.105	-0.000	120.030	0.000	0.000	115.129	49.798	0.996	MWD+IFR1+MS
25400.000	90.000	179.678	10705.997	120.793	0.000	115.827	-0.000	120.793	0.000	0.000	115.851	49.871	0.988	MWD+IFR1+MS
25500.000	90.000	179.678	10705.997	121.558	0.000	116.549	-0.000	121.558	0.000	0.000	116.574	49.946	0.980	MWD+IFR1+MS
25600.000	90.000	179.678	10705.997	122.322	0.000	117.272	-0.000	122.322	0.000	0.000	117.297	50.020	0.972	MWD+IFR1+MS
25700.000	90.000	179.678	10705.997	123.087	0.000	117.996	-0.000	123.087	0.000	0.000	118.020	50.095	0.964	MWD+IFR1+MS
25800.000	90.000	179.678	10705.997	123.852	0.000	118.720	-0.000	123.852	0.000	0.000	118.744	50.170	0.956	MWD+IFR1+MS

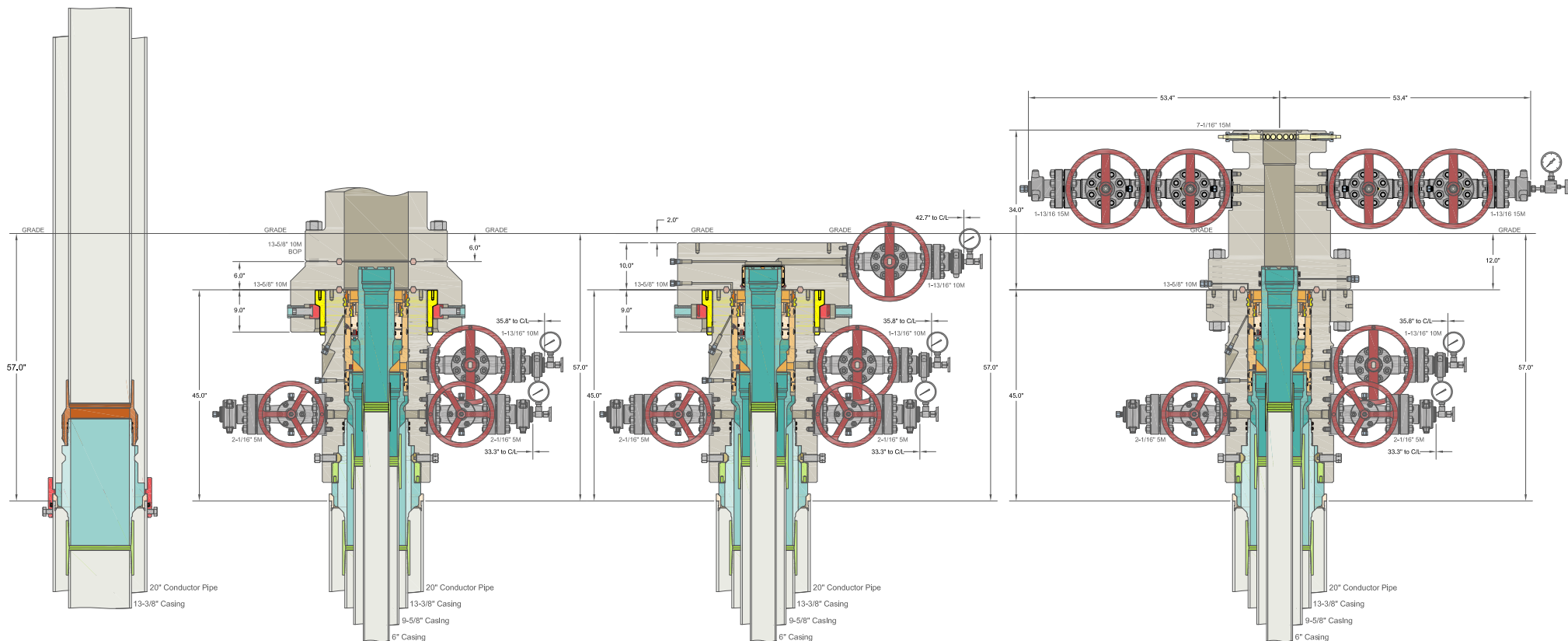
25900.000	90.000	179.678	10705.997	124.617	0.000	119.445	-0.000	124.617	0.000	0.000	119.469	50.246	0.949	MWD+IFR1+MS
26000.000	90.000	179.678	10705.997	125.382	0.000	120.170	-0.000	125.382	0.000	0.000	120.194	50.322	0.941	MWD+IFR1+MS
26100.000	90.000	179.678	10705.997	126.148	0.000	120.896	-0.000	126.148	0.000	0.000	120.920	50.399	0.933	MWD+IFR1+MS
26200.000	90.000	179.678	10705.997	126.914	0.000	121.622	-0.000	126.914	0.000	0.000	121.646	50.476	0.926	MWD+IFR1+MS
26300.000	90.000	179.678	10705.997	127.680	0.000	122.349	-0.000	127.680	0.000	0.000	122.373	50.553	0.919	MWD+IFR1+MS
26400.000	90.000	179.678	10705.997	128.446	0.000	123.076	-0.000	128.446	0.000	0.000	123.100	50.631	0.911	MWD+IFR1+MS
26500.000	90.000	179.678	10705.997	129.213	0.000	123.804	-0.000	129.213	0.000	0.000	123.827	50.709	0.904	MWD+IFR1+MS
26600.000	90.000	179.678	10705.997	129.979	0.000	124.532	-0.000	129.979	0.000	0.000	124.555	50.787	0.897	MWD+IFR1+MS
26700.000	90.000	179.678	10705.997	130.746	0.000	125.260	-0.000	130.746	0.000	0.000	125.284	50.866	0.890	MWD+IFR1+MS
26800.000	90.000	179.678	10705.997	131.514	0.000	125.989	-0.000	131.514	0.000	0.000	126.012	50.945	0.883	MWD+IFR1+MS
26900.000	90.000	179.678	10705.997	132.281	0.000	126.719	-0.000	132.281	0.000	0.000	126.742	51.025	0.876	MWD+IFR1+MS
27000.000	90.000	179.678	10705.997	133.049	0.000	127.448	-0.000	133.049	0.000	0.000	127.472	51.105	0.870	MWD+IFR1+MS
27100.000	90.000	179.678	10705.997	133.816	0.000	128.179	-0.000	133.816	0.000	0.000	128.202	51.185	0.863	MWD+IFR1+MS
27200.000	90.000	179.678	10705.997	134.584	0.000	128.909	-0.000	134.584	0.000	0.000	128.932	51.266	0.856	MWD+IFR1+MS
27300.000	90.000	179.678	10705.997	135.353	0.000	129.640	-0.000	135.353	0.000	0.000	129.663	51.347	0.850	MWD+IFR1+MS
27400.000	90.000	179.678	10705.997	136.121	0.000	130.372	-0.000	136.121	0.000	0.000	130.395	51.428	0.843	MWD+IFR1+MS
27500.000	90.000	179.678	10705.997	136.889	0.000	131.104	-0.000	136.889	0.000	0.000	131.126	51.510	0.837	MWD+IFR1+MS
27600.000	90.000	179.678	10705.997	137.658	0.000	131.836	-0.000	137.658	0.000	0.000	131.858	51.593	0.831	MWD+IFR1+MS
27700.000	90.000	179.678	10705.997	138.427	0.000	132.568	-0.000	138.427	0.000	0.000	132.591	51.675	0.825	MWD+IFR1+MS
27800.000	90.000	179.678	10705.997	139.196	0.000	133.301	-0.000	139.196	0.000	0.000	133.324	51.758	0.818	MWD+IFR1+MS
27900.000	90.000	179.678	10705.997	139.966	0.000	134.035	-0.000	139.966	0.000	0.000	134.057	51.841	0.812	MWD+IFR1+MS
28000.000	90.000	179.678	10705.997	140.735	0.000	134.768	-0.000	140.735	0.000	0.000	134.791	51.925	0.806	MWD+IFR1+MS
28100.000	90.000	179.678	10705.997	141.505	0.000	135.503	-0.000	141.505	0.000	0.000	135.525	52.009	0.800	MWD+IFR1+MS
28200.000	90.000	179.678	10705.997	142.274	0.000	136.237	-0.000	142.274	0.000	0.000	136.259	52.093	0.794	MWD+IFR1+MS
28300.000	90.000	179.678	10705.997	143.044	0.000	136.972	-0.000	143.044	0.000	0.000	136.994	52.178	0.789	MWD+IFR1+MS
28400.000	90.000	179.678	10705.997	143.814	0.000	137.707	-0.000	143.814	0.000	0.000	137.729	52.263	0.783	MWD+IFR1+MS
28500.000	90.000	179.678	10705.997	144.585	0.000	138.442	-0.000	144.585	0.000	0.000	138.464	52.348	0.777	MWD+IFR1+MS
28600.000	90.000	179.678	10705.997	145.355	0.000	139.178	-0.000	145.355	0.000	0.000	139.200	52.434	0.771	MWD+IFR1+MS
28626.380	90.000	179.678	10705.997	145.558	0.000	139.372	-0.000	145.558	0.000	0.000	139.393	52.457	0.770	MWD+IFR1+MS
28700.000	90.000	179.678	10705.997	146.125	0.000	139.912	-0.000	146.125	0.000	0.000	139.934	52.520	0.766	MWD+IFR1+MS
28726.017	90.000	179.678	10705.997	146.325	0.000	140.103	-0.000	146.325	0.000	0.000	140.125	52.543	0.764	MWD+IFR1+MS

## Plan Targets

Poker Lake Unit 20 DTD South 123H



Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 3	11000.06	440367.70	631240.00	7456.00	RECTANGLE
SHL 5	10096.74	439534.71	631787.37	5743.65	RECTANGLE
LTP 3	28626.02	422250.40	631341.90	7456.00	RECTANGLE
BHL 3	28726.04	422150.40	631342.40	7456.00	RECTANGLE



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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
		APPRV	04NOV22
		DRAWING NO.	HBE0000833

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

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

CONDITIONS  
  
Action 342423

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 342423
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	6/7/2024