

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Repor

County or Parish/State: EDDY /

**Unit or CA Number:** 

Well Name: POKER LAKE UNIT 21 Well Location: T24S / R30E / SEC 21 /

NWNW / 32.209384 / -103.89363 DTD

Well Number: 122H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name: WELL

Unit or CA Name: POKER LAKE UNIT

NMNM71016X

**US Well Number: 3001553219 Operator: XTO PERMIAN OPERATING** 

LLC

# **Notice of Intent**

Lease Number: NMLC0068430

Sundry ID: 2784100

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

Date Sundry Submitted: 04/09/2024 **Time Sundry Submitted: 12:43** 

Date proposed operation will begin: 04/30/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, Casing sizes, Cement and Proposed total Depth. FROM: TO: SHL: 391' FNL & 388' FWL OF SECTION 21-T24S-R30E 201' FNL & 387' FWL OF SECTION 21-T24S-R30E FTP: 386' FNL & 1557' FWL OF SECTION 21-T24S-R30E 100' FNL & 586' FWL OF SECTION 21-T24S-R30E LTP: 330' FNL & 1731' FWL OF SECTION 33-T23S-R30E 2542' FNL & 586' FWL OF SECTION 33-T24S-R30E BHL: 201' FNL & 1731' FWL OF SECTION 33-T23S-R30E 2632' FNL & 586' FWL OF SECTION 33-T24S-R30E The proposed total depth is changing from 32793' MD; 11026' TVD (Wolfcamp) to 24504' MD; 11700' TVD (Wolfcamp C). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Plan, MBS, BOP Variance and Well Control Plan.

# **NOI Attachments**

# **Procedure Description**

PLU\_21\_DTD\_122H\_Sundry\_Attachments\_20240502143523.pdf

Page 1 of 2

eived by OCD: 7/1/2024 3:32:50 PM Well Name: POKER LAKE UNIT 21

DTD

Well Location: T24S / R30E / SEC 21 / NWNW / 32.209384 / -103.89363

County or Parish/State: Page 2 of

NM

Well Number: 122H

Type of Well: CONVENTIONAL GAS

**Allottee or Tribe Name:** 

Lease Number: NMLC0068430

Unit or CA Name: POKER LAKE UNIT

**Unit or CA Number:** 

**US Well Number: 3001553219** 

**Operator: XTO PERMIAN OPERATING** 

NMNM71016X

LLC

**Operator** 

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

**Operator Electronic Signature: TERRA SEBASTIAN** Signed on: MAY 02, 2024 02:35 PM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Advisor

Street Address: 6401 HOLIDAY HILL ROAD SUITE 200

City: MIDLAND State: TX

Phone: (432) 999-3107

Email address: TERRA.B.SEBASTIAN@EXXONMOBIL.COM

**Field** 

**Representative Name:** 

**Street Address:** 

City:

State:

Zip:

Phone:

**Email address:** 

**BLM Point of Contact** 

**BLM POC Name: CHRISTOPHER WALLS** 

**BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5752342234

BLM POC Email Address: cwalls@blm.gov

**Disposition:** Approved Signature: Chris Walls

Disposition Date: 07/01/2024

Page 2 of 2

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVE	D
OMB No. 1004-013	7
Expires: October 31, 2	02

	5.	Lease	Serial	No
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BURI	EAU OF LAND MANAGEMENT		J. Lease Serial IVO.				
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	re-enter an	6. If Indian, Allottee or	r Tribe Name			
abandonea wen. c	ose romi oroc-o (Ar b) for suc	лі ріорозаіз.	7 IFIL:: + -F.C.A /A	None and None and I and No			
	<b>TRIPLICATE</b> - Other instructions on page	9 2	/. If Unit of CA/Agree	ement, Name and/or No.			
1. Type of Well			8. Well Name and No.				
Oil Well Gas W	Vell Other						
2. Name of Operator			9. API Well No.				
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or I	Exploratory Area			
4. Location of Well (Footage, Sec., T.,R	.,M., or Survey Description)		11. Country or Parish,	State			
12. CHE	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE OF NOT	 ΓΙCE, REPORT OR OTH	IER DATA			
TYPE OF SUBMISSION		TYPE OF A	CTION				
Notice of Intent	Acidize Deep	=	oduction (Start/Resume)	Water Shut-Off			
		~ <u>=</u>	clamation	Well Integrity			
Subsequent Report		=	complete nporarily Abandon	Other			
Final Abandonment Notice	Convert to Injection Plug		ter Disposal				
13. Describe Proposed or Completed O	peration: Clearly state all pertinent details, in		date of any proposed wo	rk and approximate duration thereof. If			
completed. Final Abandonment Not is ready for final inspection.)	ns. If the operation results in a multiple comices must be filed only after all requirements						
14. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)	Title					
		Title					
Signature		Date					
	THE SPACE FOR FEDI	ERAL OR STATE O	FICE USE				
Approved by							
•		Title		Date			
Conditions of approval, if any, are attacherify that the applicant holds legal or ewhich would entitle the applicant to con-	ned. Approval of this notice does not warrant quitable title to those rights in the subject led duct operations thereon.	rrant or					
	3 U.S.C Section 1212, make it a crime for an		illfully to make to any de	partment or agency of the United States			

(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

(Form 3160-5, page 2)

# **Additional Information**

# **Additional Remarks**

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

# **Location of Well**

0. SHL: NWNW / 391 FNL / 388 FWL / TWSP: 24S / RANGE: 30E / SECTION: 21 / LAT: 32.209384 / LONG: -103.89363 ( TVD: 0 feet, MD: 0 feet )

PPP: NENW / 386 FNL / 1557 FWL / TWSP: 24S / RANGE: 30E / SECTION: 21 / LAT: 32.209405 / LONG: -103.88985 ( TVD: 11026 feet, MD: 11448 feet )

BHL: NENW / 201 FNL / 1731 FWL / TWSP: 23S / RANGE: 30E / SECTION: 33 / LAT: 32.26808 / LONG: -103.889284 ( TVD: 11026 feet, MD: 32793 feet )

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
<u>District II</u>
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

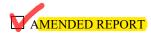
District IV

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

800.00

# 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

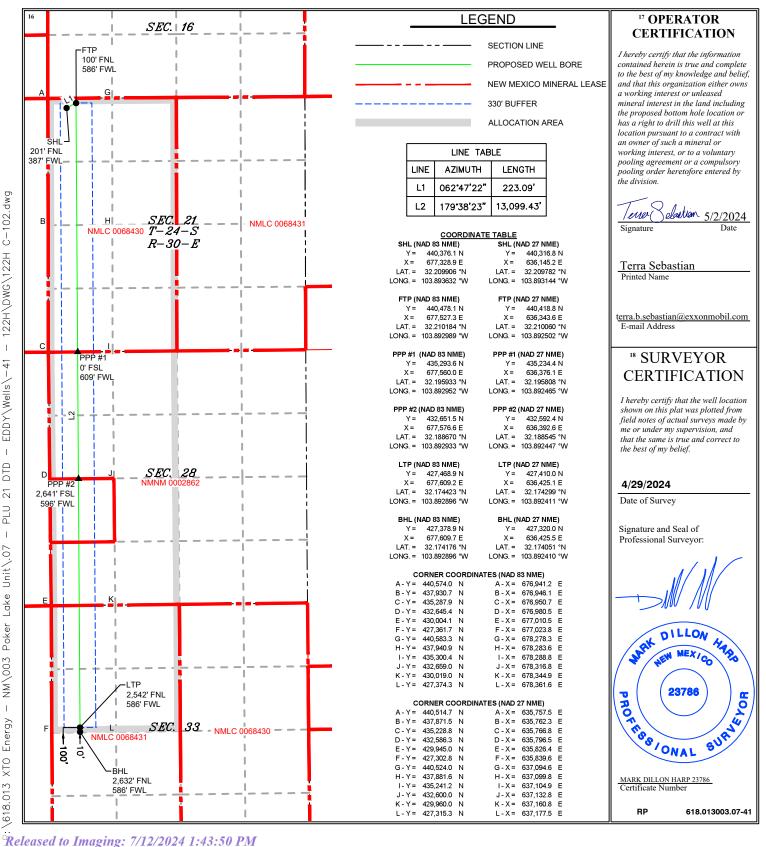


WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name					
30-015-3	53219	98220	PURPLE SAGE;WOLFCAMP (GAS)					
<sup>4</sup> Property Code		<sup>5</sup> P	roperty Name	<sup>6</sup> Well Number				
333571		POKER L	AKE UNIT 21 DTD	122H				
<sup>7</sup> OGRID No.		<sup>8</sup> O	perator Name	<sup>9</sup> Elevation				
373075		XTO PERMIA	AN OPERATING, LLC.	3,316'				

<sup>10</sup> Surface Location UL or lot no. Township North/South lin Feet from the East/West line D 21 **24S** 30E **NORTH** 387 **WEST EDDY** "Bottom Hole Location If Different From Surface UL or lot no. East/West line Section Feet from the County Township Range Lot Idn Feet from the North/South line Ε 33 **24S** 30E 2,632 **NORTH** 586 WEST **EDDY** Joint or Infill Dedicated Acres Consolidation Code Order No.

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.



Inten	t	As Dril	led											
API#	ŀ													
Ope	rator Nai	me:				Proper	rty Na	ame:						Well Number
Kick (	Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet	Fr	om N,	/S	Feet		From	n E/W	County	
Latitu	ude	Longitude NAD								NAD				
First <sup>-</sup>	Take Poir	nt (FTP)												
										County				
Latitu	ude		Longitu	ıde							NAD	NAD		
Lact T	Take Poin	+ /I TD\												
UL	Section	Township	Range	Lot	Feet	From N	N/S	Feet		From E/	/w	Count	·V	
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Is this	s well the	defining v	vell for th	ne Hori	zontal S <sub>ا</sub>	pacing U	Jnit?							
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KZ 06/29/2018

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

XTO Energy Inc.
POKER LAKE UNIT 21 DTD 122H
Projected TD: 24504' MD / 11700' TVD
SHL: 201' FNL & 387' FWL , Section 21, T24S, R30E
BHL: 2632' FNL & 586' FWL , Section 33, T23S, 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	878'	Water
Top of Salt	1281'	Water
Base of Salt	3474'	Water
Delaware	3668'	Water
Brushy Canyon	6214'	Water/Oil/Gas
Bone Spring	7538'	Water
Avalon	8231'	Water/Oil/Gas
1st Bone Spring	8247'	Water/Oil/Gas
2nd Bone Spring	8832'	Water/Oil/Gas
3rd Bone Spring	9658'	Water/Oil/Gas
Wolfcamp	10843'	Water/Oil/Gas
Wolfcamp X	10864'	Water/Oil/Gas
Wolfcamp Y	10945'	Water/Oil/Gas
Wolfcamp A	10992'	Water/Oil/Gas
Wolfcamp B	11375'	Water/Oil/Gas
Wolfcamp C	11580'	Water/Oil/Gas
Target/Land Curve	11700'	Water/Oil/Gas

<sup>\*\*\*</sup> Hydrocarbons @ Brushy Canyon

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 @ 978' (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 10796' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 24504 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10496 feet).

# 3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 978'	13.375	54.5	J-55	втс	BTC New		2.65	17.05
12.25	0' – 4000'	9.625	40	HC P-110	втс	New	1.79	2.31	2.93
12.25	4000' – 10796'	9.625	40	HC L-80	втс	New	1.30	1.62	3.37
8.5	0' – 10696'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.74	1.95
8.5	10696' - 24504'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.59	1.95

<sup>·</sup> XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry

<sup>\*\*\*</sup> Groundwater depth 40' (per NM State Engineers Office).

 $<sup>\</sup>cdot$  9.625 Collapse analyzed using 50% evacuation based on regional experience.

- $\cdot$  9.625 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less XTO requests the option to use 5" BTC Float equipment for the the production casing

# Wellhead:

- Permanent Wellhead Multibowl System

  A. Starting Head: 11" 10M top flange x 9-5/8" bottom

  B. Tubing Head: 11" 10M bottom flange x 7-1/16" 15M top flange
  - · Wellhead will be installed by manufacturer's representatives.
  - · Manufacturer will monitor welding process to ensure appropriate temperature of seal.

#### 4. Cement Program

#### Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 978'

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 +/- 10796'

#### st Stage

Optional Lead: 1050 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 1320 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6214

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: 2190 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

Top of Cement: 0

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6214') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

#### Production Casing: 5.5, 20 New Semi-Premium, RY P-110 casing to be set at +/- 24504'

Lead: 50 sxs NeoCem (mixed at 13.2 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 10496 feet
Tail: 2660 sxs VersaCem (mixed at 14.5 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10996 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 4423 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, 10M bradenhead and flange, the BOP test will be limited to 10000 psi. When nippling up on the 9.625, the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M 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	Viscosity	Fluid Loss
INTERVAL	Fiole Size	Muu Type	(ppg)	(sec/qt)	(cc)
0' - 978'	17.5	FW/Native	8.4-8.9	35-40	NC
978' - 10796'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10796' - 24504'	8.5	ОВМ	11.5-12	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. Cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

#### 7. Auxiliary Well Control and Monitoring Equipment

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

#### 8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

#### 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 180 to 200 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6997 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 21 DTD South 122H

 Measured Depth:
 24503.52 ft

 TVD RKB:
 11700.00 ft

Location

New Mexico East -Cartographic Reference System: NAD 27 Northing: 440316.80 ft Easting: 636145.20 ft RKB: 3348.00 ft **Ground Level:** 3316.00 ft North Reference: Grid Convergence Angle: 0.23 Deg

Plan Sections

Poker Lake Unit 21 DTD South 122H

Measured			TVD			Build	Turn	Dogleg
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1421.75	6.44	62.79	1421.08	8.25	16.05	2.00	0.00	2.00
3090.11	6.44	62.79	3078.92	93.75	182.35	0.00	0.00	0.00
3411.86	0.00	0.00	3400.00	102.00	198.40	<b>-</b> 2.00	0.00	2.00
10995.66	0.00	0.00	10983.80	102.00	198.40	0.00	0.00	0.00
12120.66	90.00	179.64	11700.00	-614.18	202.89	8.00	0.00	8.00
24413.52	90.00	179.64	11700.00	-12906.80	279.91	0.00	0.00	0.00 LTP 7
24503.52	90.00	179.64	11700.00	-12996.80	280.47	0.00	0.00	0.00 BHL 7

**Position Uncertainty** 

Poker Lake Unit 21 DTD South 122H

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

Reggived by 22CD: 7/1/2024 3:32:50 PM

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	2.347	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	2.374	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	2.406	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	2.443	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	2.485	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	2.530	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	2.580	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	2.633	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	62.792	1199.980	5.154	0.000	4.360	0.000	2.689	0.000	0.000	5.237	4.262	<b>-</b> 44.781	MWD+IFR1+MS
1300.000	4.000	62.792	1299.838	5.911	0.000	4.741	0.000	2.749	0.000	0.000	5.932	4.726	-33.163	MWD+IFR1+MS
1400.000	6.000	62.792	1399.452	6.594	0.000	5.119	0.000	2.815	0.000	0.000	6.615	5.119	<b>-</b> 27.189	MWD+IFR1+MS
1421.754	6.435	62.792	1421.078	6.654	0.000	5.194	0.000	2.825	0.000	0.000	6.680	5.194	<b>-</b> 27.158	MWD+IFR1+MS
1500.000	6.435	62.792	1498.831	6.871	0.000	5.467	0.000	2.877	0.000	0.000	6.896	5.467	<b>-</b> 27.045	MWD+IFR1+MS
1600.000	6.435	62.792	1598.201	7.163	0.000	5.837	0.000	2.946	0.000	0.000	7.185	5.837	<b>-</b> 26.346	MWD+IFR1+MS
1700.000	6.435	62.792	1697.571	7.466	0.000	6.212	0.000	3.018	0.000	0.000	7.488	6.211	<del>-</del> 25.406	MWD+IFR1+MS
1800.000	6.435	62.792	1796.941	7.774	0.000	6.586	0.000	3.092	0.000	0.000	7.796	6.583	<b>-</b> 24.467	MWD+IFR1+MS
1900.000	6.435	62.792	1896.311	8.088	0.000	6.959	0.000	3.169	0.000	0.000	8.109	6.954	<b>-</b> 23.530	MWD+IFR1+MS
2000.000	6.435	62.792	1995.681	8.406	0.000	7.331	0.000	3.248	0.000	0.000	8.427	7.323	<b>-</b> 22.598	MWD+IFR1+MS
2100.000	6.435	62.792	2095.051	8.728	0.000	7.702	0.000	3.329	0.000	0.000	8.749	7.692	<b>-</b> 21.672	MWD+IFR1+MS
2200.000	6.435	62.792	2194.421	9.053	0.000	8.073	0.000	3.412	0.000	0.000	9.075	8.059	<b>-</b> 20.755	MWD+IFR1+MS
2300.000	6.435	62.792	2293.791	9.381	0.000	8.443	0.000	3.496	0.000	0.000	9.404	8.426	<b>-</b> 19.849	MWD+IFR1+MS
2400.000	6.435	62.792	2393.161	9.713	0.000	8.813	0.000	3.582	0.000	0.000	9.737	8.792	<b>-</b> 18.956	MWD+IFR1+MS
2500.000	6.435	62.792	2492.530	10.046	0.000	9.182	0.000	3.670	0.000	0.000	10.071	9.157	<b>-</b> 18.077	MWD+IFR1+MS
2600.000	6.435	62.792	2591.900	10.382	0.000	9.550	0.000	3.760	0.000	0.000	10.409	9.522	-17.213	MWD+IFR1+MS
2700.000	6.435	62.792	2691.270	10.720	0.000	9.919	0.000	3.851	0.000	0.000	10.748	9.887	<b>-</b> 16.366	MWD+IFR1+MS
2800.000	6.435	62.792	2790.640	11.060	0.000	10.287	0.000	3.944	0.000	0.000	11.090	10.251	-15.538	MWD+IFR1+MS
2900.000	6.435	62.792	2890.010	11.401	0.000	10.655	0.000	4.038	0.000	0.000	11.433	10.615	-14.728	MWD+IFR1+MS

3000.000	6.435	62.792	2989.380	11.745 0.000	11.022	0.000	4.133 0.000	0.000	11.777	10.979	-13.939 MWD+IFR1+MS
3090.110	6.435	62.792	3078.922	12.052 0.000	11.351	0.000	4.220 0.000	0.000	12.086	11.305	-13.412 MWD+IFR1+MS
3100.000	6.237	62.792	3088.752	12.087 0.000	11.385	0.000	4.230 0.000	0.000	12.118	11.340	-13.432 MWD+IFR1+MS
3200.000	4.237	62.792	3188.330	12.492 0.000	11.740	0.000	4.330 0.000	0.000	12.512	11.693	-13.568 MWD+IFR1+MS
3300.000	2.237	62.792	3288.165	13.025 0.000	12.104	0.000	4.431 0.000	0.000	13.058	12.045	-13.518 MWD+IFR1+MS
3400.000	0.237	62.792	3388.136	13.529 0.000	12.464	0.000	4.528 0.000	0.000	13.590	12.393	-13.476 MWD+IFR1+MS
3411.864	0.000	0.000	3400.000	12.502 0.000	13.566	0.000	4.539 0.000	0.000	13.628	12.435	-13.489 MWD+IFR1+MS
3500.000	0.000	0.000	3488.136	12.811 0.000	13.842	0.000	4.623 0.000	0.000	13.905	12.743	-13.726 MWD+IFR1+MS
3600.000	0.000	0.000	3588.136	13.168 0.000	14.167	0.000	4.719 0.000	0.000	14.234	13.096	-14.316 MWD+IFR1+MS
3700.000	0.000	0.000	3688.136	13.527 0.000	14.494	0.000	4.817 0.000	0.000	14.566	13.450	-14.967 MWD+IFR1+MS
3800.000	0.000	0.000	3788.136	13.886 0.000	14.823	0.000	4.916 0.000	0.000	14.900	13.804	-15.611 MWD+IFR1+MS
3900.000	0.000	0.000	3888.136	14.245 0.000	15.153	0.000	5.017 0.000	0.000	15.235	14.158	-16.247 MWD+IFR1+MS
4000.000	0.000	0.000	3988.136	14.604 0.000	15.485	0.000	5.119 0.000	0.000	15.571	14.511	-16.874 MWD+IFR1+MS
4100.000	0.000	0.000	4088.136	14.962 0.000	15.818	0.000	5.223 0.000	0.000	15.909	14.865	-17.492 MWD+IFR1+MS
4200.000	0.000	0.000	4188.136	15.321 0.000	16.151	0.000	5.328 0.000	0.000	16.248	15.219	-18.101 MWD+IFR1+MS
4300.000	0.000	0.000	4288.136	15.680 0.000	16.486	0.000	5.436 0.000	0.000	16.588	15.573	-18.701 MWD+IFR1+MS
4400.000	0.000	0.000	4388.136	16.039 0.000	16.822	0.000	5.544 0.000	0.000	16.928	15.926	-19.290 MWD+IFR1+MS
4500.000	0.000	0.000	4488.136	16.397 0.000	17.159	0.000	5.655 0.000	0.000	17.270	16.280	-19.869 MWD+IFR1+MS
4600.000	0.000	0.000	4588.136	16.756 0.000	17.496	0.000	5.767 0.000	0.000	17.613	16.634	-20.438 MWD+IFR1+MS
4700.000	0.000	0.000	4688.136	17.115 0.000	17.835	0.000	5.881 0.000	0.000	17.956	16.988	-20.997 MWD+IFR1+MS
4800.000	0.000	0.000	4788.136	17.474 0.000	18.174	0.000	5.997 0.000	0.000	18.300	17.341	-21.545 MWD+IFR1+MS
4900.000	0.000	0.000	4888.136	17.832 0.000	18.514	0.000	6.115 0.000	0.000	18.645	17.695	-22.082 MWD+IFR1+MS
5000.000	0.000	0.000	4988.136	18.191 0.000	18.854	0.000	6.235 0.000	0.000	18.990	18.049	-22.608 MWD+IFR1+MS
5100.000	0.000	0.000	5088.136	18.550 0.000	19.195	0.000	6.356 0.000	0.000	19.336	18.403	-23.123 MWD+IFR1+MS
5200.000	0.000	0.000	5188.136	18.908 0.000	19.537	0.000	6.480 0.000	0.000	19.683	18.756	-23.628 MWD+IFR1+MS
5300.000	0.000	0.000	5288.136	19.267 0.000	19.880	0.000	6.605 0.000	0.000	20.030	19.110	-24.122 MWD+IFR1+MS
5400.000	0.000	0.000	5388.136	19.626 0.000	20.223	0.000	6.733 0.000	0.000	20.378	19.464	-24.605 MWD+IFR1+MS
5500.000	0.000	0.000	5488.136	19.984 0.000	20.566	0.000	6.863 0.000	0.000	20.726	19.818	-25.077 MWD+IFR1+MS
5600.000	0.000	0.000	5588.136	20.343 0.000	20.910	0.000	6.994 0.000	0.000	21.075	20.172	-25.539 MWD+IFR1+MS
5700.000	0.000	0.000	5688.136	20.702 0.000	21.255	0.000	7.128 0.000	0.000	21.424	20.526	-25.991 MWD+IFR1+MS
5800.000	0.000	0.000	5788.136	21.060 0.000	21.600	0.000	7.264 0.000	0.000	21.774	20.880	-26.432 MWD+IFR1+MS
5900.000	0.000	0.000	5888.136	21.419 0.000	21.945	0.000	7.403 0.000	0.000	22.124	21.234	-26.863 MWD+IFR1+MS
6000.000	0.000	0.000	5988.136	21.778 0.000	22.291	0.000	7.543 0.000	0.000	22.474	21.588	-27.285 MWD+IFR1+MS

6100.000	0.000	0.000	6088.136	22.136	0.000	22.637	0.000	7.686	0.000	0.000	22.824	21.943	-27.696	MWD+IFR1+MS
6200.000	0.000	0.000	6188.136	22.495	0.000	22.983	0.000	7.831	0.000	0.000	23.175	22.297	-28.098	MWD+IFR1+MS
6300.000	0.000	0.000	6288.136	22.853	0.000	23.330	0.000	7.979	0.000	0.000	23.527	22.651	-28.490	MWD+IFR1+MS
6400.000	0.000	0.000	6388.136	23.212	0.000	23.678	0.000	8.128	0.000	0.000	23.878	23.006	-28.873	MWD+IFR1+MS
6500.000	0.000	0.000	6488.136	23.571	0.000	24.025	0.000	8.281	0.000	0.000	24.230	23.360	-29.247	MWD+IFR1+MS
6600.000	0.000	0.000	6588.136	23.929	0.000	24.373	0.000	8.435	0.000	0.000	24.582	23.714	-29.612	MWD+IFR1+MS
6700.000	0.000	0.000	6688.136	24.288	0.000	24.721	0.000	8.592	0.000	0.000	24.934	24.069	-29.968	MWD+IFR1+MS
6800.000	0.000	0.000	6788.136	24.646	0.000	25.070	0.000	8.752	0.000	0.000	25.287	24.423	-30.316	MWD+IFR1+MS
6900.000	0.000	0.000	6888.136	25.005	0.000	25.419	0.000	8.914	0.000	0.000	25.640	24.778	-30.655	MWD+IFR1+MS
7000.000	0.000	0.000	6988.136	25.364	0.000	25.768	0.000	9.079	0.000	0.000	25.993	25.133	-30.987	MWD+IFR1+MS
7100.000	0.000	0.000	7088.136	25.722	0.000	26.117	0.000	9.246	0.000	0.000	26.346	25.487	-31.310	MWD+IFR1+MS
7200.000	0.000	0.000	7188.136	26.081	0.000	26.467	0.000	9.416	0.000	0.000	26.699	25.842	-31.626	MWD+IFR1+MS
7300.000	0.000	0.000	7288.136	26.439	0.000	26.816	0.000	9.588	0.000	0.000	27.053	26.197	-31.934	MWD+IFR1+MS
7400.000	0.000	0.000	7388.136	26.798	0.000	27.166	0.000	9.763	0.000	0.000	27.407	26.552	-32.235	MWD+IFR1+MS
7500.000	0.000	0.000	7488.136	27.156	0.000	27.517	0.000	9.940	0.000	0.000	27.761	26.907	-32.529	MWD+IFR1+MS
7600.000	0.000	0.000	7588.136	27.515	0.000	27.867	0.000	10.121	0.000	0.000	28.115	27.262	-32.817	MWD+IFR1+MS
7700.000	0.000	0.000	7688.136	27.874	0.000	28.218	0.000	10.304	0.000	0.000	28.469	27.617	-33.097	MWD+IFR1+MS
7800.000	0.000	0.000	7788.136	28.232	0.000	28.568	0.000	10.489	0.000	0.000	28.823	27.972	-33.371	MWD+IFR1+MS
7900.000	0.000	0.000	7888.136	28.591	0.000	28.919	0.000	10.678	0.000	0.000	29.178	28.327	-33.638	MWD+IFR1+MS
8000.000	0.000	0.000	7988.136	28.949	0.000	29.271	0.000	10.869	0.000	0.000	29.533	28.682	-33.899	MWD+IFR1+MS
8100.000	0.000	0.000	8088.136	29.308	0.000	29.622	0.000	11.062	0.000	0.000	29.887	29.037	-34.155	MWD+IFR1+MS
8200.000	0.000	0.000	8188.136	29.666	0.000	29.974	0.000	11.259	0.000	0.000	30.242	29.392	-34.404	MWD+IFR1+MS
8300.000	0.000	0.000	8288.136	30.025	0.000	30.325	0.000	11.458	0.000	0.000	30.597	29.748	-34.648	MWD+IFR1+MS
8400.000	0.000	0.000	8388.136	30.383	0.000	30.677	0.000	11.660	0.000	0.000	30.952	30.103	-34.886	MWD+IFR1+MS
8500.000	0.000	0.000	8488.136	30.742	0.000	31.029	0.000	11.865	0.000	0.000	31.308	30.458	-35.118	MWD+IFR1+MS
8600.000	0.000	0.000	8588.136	31.101	0.000	31.381	0.000	12.073	0.000	0.000	31.663	30.814	-35.346	MWD+IFR1+MS
8700.000	0.000	0.000	8688.136	31.459	0.000	31.734	0.000	12.284	0.000	0.000	32.018	31.169	-35.568	MWD+IFR1+MS
8800.000	0.000	0.000	8788.136	31.818	0.000	32.086	0.000	12.497	0.000	0.000	32.374	31.525	-35.786	MWD+IFR1+MS
8900.000	0.000	0.000	8888.136	32.176	0.000	32.439	0.000	12.714	0.000	0.000	32.730	31.880	-35.999	MWD+IFR1+MS
9000.000	0.000	0.000	8988.136	32.535	0.000	32.791	0.000	12.933	0.000	0.000	33.085	32.236	-36.207	MWD+IFR1+MS
9100.000	0.000	0.000	9088.136	32.893	0.000	33.144	0.000	13.155	0.000	0.000	33.441	32.591	-36.410	MWD+IFR1+MS
9200.000	0.000	0.000	9188.136	33.252	0.000	33.497	0.000	13.380	0.000	0.000	33.797	32.947	-36.609	MWD+IFR1+MS
9300.000	0.000	0.000	9288.136	33.610	0.000	33.850	0.000	13.607	0.000	0.000	34.153	33.303	-36.804	MWD+IFR1+MS

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9400.000	0.000	0.000	9388.136	33.969	0.000	34.203	0.000	13.838	0.000	0.000	34.509	33.659	-36.995	MWD+IFR1+MS
9500.000	0.000	0.000	9488.136	34.327	0.000	34.557	0.000	14.072	0.000	0.000	34.865	34.014	-37.181	MWD+IFR1+MS
9600.000	0.000	0.000	9588.136	34.686	0.000	34.910	0.000	14.308	0.000	0.000	35.221	34.370	-37.364	MWD+IFR1+MS
9700.000	0.000	0.000	9688.136	35.044	0.000	35.263	0.000	14.548	0.000	0.000	35.577	34.726	-37.543	MWD+IFR1+MS
9800.000	0.000	0.000	9788.136	35.403	0.000	35.617	0.000	14.790	0.000	0.000	35.933	35.082	-37.718	MWD+IFR1+MS
9900.000	0.000	0.000	9888.136	35.761	0.000	35.971	0.000	15.036	0.000	0.000	36.290	35.438	-37.889	MWD+IFR1+MS
10000.000	0.000	0.000	9988.136	36.120	0.000	36.324	0.000	15.284	0.000	0.000	36.646	35.794	-38.057	MWD+IFR1+MS
10100.000	0.000	0.000	10088.136	36.479	0.000	36.678	0.000	15.536	0.000	0.000	37.002	36.150	-38.221	MWD+IFR1+MS
10200.000	0.000	0.000	10188.136	36.837	0.000	37.032	0.000	15.790	0.000	0.000	37.359	36.506	-38.383	MWD+IFR1+MS
10300.000	0.000	0.000	10288.136	37.196	0.000	37.386	0.000	16.047	0.000	0.000	37.715	36.862	-38.541	MWD+IFR1+MS
10400.000	0.000	0.000	10388.136	37.554	0.000	37.740	0.000	16.307	0.000	0.000	38.072	37.218	-38.695	MWD+IFR1+MS
10500.000	0.000	0.000	10488.136	37.913	0.000	38.095	0.000	16.571	0.000	0.000	38.429	37.574	<b>-</b> 38.847	MWD+IFR1+MS
10600.000	0.000	0.000	10588.136	38.271	0.000	38.449	0.000	16.837	0.000	0.000	38.785	37.930	-38.996	MWD+IFR1+MS
10700.000	0.000	0.000	10688.136	38.630	0.000	38.803	0.000	17.106	0.000	0.000	39.142	38.287	-39.142	MWD+IFR1+MS
10800.000	0.000	0.000	10788.136	38.988	0.000	39.158	0.000	17.378	0.000	0.000	39.499	38.643	<b>-</b> 39.285	MWD+IFR1+MS
10900.000	0.000	0.000	10888.136	39.347	0.000	39.512	0.000	17.653	0.000	0.000	39.855	38.999	-39.425	MWD+IFR1+MS
10995.664	0.000	0.000	10983.800	39.689	0.000	39.851	0.000	17.920	0.000	0.000	40.196	39.340	-39.552	MWD+IFR1+MS
11000.000	0.347	179.641	10988.136	39.696	0.000	39.871	-0.000	17.932	0.000	0.000	40.210	39.355	-39.554	MWD+IFR1+MS
11100.000	8.347	179.641	11087.768	39.929	0.000	40.186	-0.000	18.222	0.000	0.000	40.680	39.806	130.751	MWD+IFR1+MS
11200.000	16.347	179.641	11185.376	40.332	0.000	40.494	-0.000	18.596	0.000	0.000	41.795	40.307	110.264	MWD+IFR1+MS
11300.000	24.347	179.641	11279.060	40.137	0.000	40.788	-0.000	19.122	0.000	0.000	42.923	40.646	103.922	MWD+IFR1+MS
11400.000	32.347	179.641	11366.997	39.400	0.000	41.064	-0.000	19.847	0.000	0.000	43.923	40.937	101.366	MWD+IFR1+MS
11500.000	40.347	179.641	11447.476	38.201	0.000	41.319	-0.000	20.792	0.000	0.000	44.757	41.195	100.166	MWD+IFR1+MS
11600.000	48.347	179.641	11518.930	36.653	0.000	41.551	-0.000	21.952	0.000	0.000	45.417	41.426	99.617	MWD+IFR1+MS
11700.000	56.347	179.641	11579.968	34.899	0.000	41.758	-0.000	23.301	0.000	0.000	45.905	41.628	99.445	MWD+IFR1+MS
11800.000	64.347	179.641	11629.403	33.125	0.000	41.939	-0.000	24.794	0.000	0.000	46.235	41.802	99.523	MWD+IFR1+MS
11900.000	72.347	179.641	11666.272	31.549	0.000	42.093	-0.000	26.380	0.000	0.000	46.432	41.947	99.768	MWD+IFR1+MS
12000.000	80.347	179.641	11689.857	30.413	0.000	42.217	-0.000	28.003	0.000	0.000	46.527	42.063	100.108	MWD+IFR1+MS
12100.000	88.347	179.641	11699.699	29.937	0.000	42.312	-0.000	29.611	0.000	0.000	46.559	42.149	100.453	MWD+IFR1+MS
12120.664	90.000	179.641	11699.997	29.659	0.000	42.327	-0.000	29.659	0.000	0.000	46.563	42.163	100.508	MWD+IFR1+MS
12200.000	90.000	179.641	11699.997	29.777	0.000	42.386	-0.000	29.777	0.000	0.000	46.572	42.217	100.740	MWD+IFR1+MS
12300.000	90.000	179.641	11699.997	29.930	0.000	42.476	-0.000	29.930	0.000	0.000	46.586	42.299	101.077	MWD+IFR1+MS
12400.000	90.000	179.641	11699.997	30.103	0.000	42.581	-0.000	30.103	0.000	0.000	46.601	42.396	101.459	MWD+IFR1+MS

	12500.000	90.000	179.641	11699.997	30.296	0.000	42.699	-0.000	30.296	0.000	0.000	46.617	42.505	101.893	MWD+IFR1+MS
	12600.000	90.000	179.641	11699.997	30.507	0.000	42.830	-0.000	30.507	0.000	0.000	46.635	42.626	102.382	MWD+IFR1+MS
	12700.000	90.000	179.641	11699.997	30.738	0.000	42.975	-0.000	30.738	0.000	0.000	46.655	42.760	102.937	MWD+IFR1+MS
	12800.000	90.000	179.641	11699.997	30.986	0.000	43.132	-0.000	30.986	0.000	0.000	46.677	42.905	103.567	MWD+IFR1+MS
	12900.000	90.000	179.641	11699.997	31.252	0.000	43.303	-0.000	31.252	0.000	0.000	46.702	43.061	104.284	MWD+IFR1+MS
	13000.000	90.000	179.641	11699.997	31.536	0.000	43.486	-0.000	31.536	0.000	0.000	46.728	43.228	105.104	MWD+IFR1+MS
	13100.000	90.000	179.641	11699.997	31.836	0.000	43.683	-0.000	31.836	0.000	0.000	46.758	43.406	106.044	MWD+IFR1+MS
	13200.000	90.000	179.641	11699.997	32.153	0.000	43.891	-0.000	32.153	0.000	0.000	46.792	43.593	107.127	MWD+IFR1+MS
	13300.000	90.000	179.641	11699.997	32.485	0.000	44.112	-0.000	32.485	0.000	0.000	46.830	43.788	108.383	MWD+IFR1+MS
	13400.000	90.000	179.641	11699.997	32.833	0.000	44.345	-0.000	32.833	0.000	0.000	46.872	43.992	109.844	MWD+IFR1+MS
	13500.000	90.000	179.641	11699.997	33.196	0.000	44.590	-0.000	33.196	0.000	0.000	46.921	44.201	111.552	MWD+IFR1+MS
	13600.000	90.000	179.641	11699.997	33.573	0.000	44.847	-0.000	33.573	0.000	0.000	46.978	44.416	113.556	MWD+IFR1+MS
	13700.000	90.000	179.641	11699.997	33.965	0.000	45.115	-0.000	33.965	0.000	0.000	47.045	44.632	115.910	MWD+IFR1+MS
	13800.000	90.000	179.641	11699.997	34.369	0.000	45.395	-0.000	34.369	0.000	0.000	47.123	44.849	118.668	MWD+IFR1+MS
•	13900.000	90.000	179.641	11699.997	34.787	0.000	45.685	-0.000	34.787	0.000	0.000	47.217	45.062	121.873	MWD+IFR1+MS
•	14000.000	90.000	179.641	11699.997	35.217	0.000	45.987	-0.000	35.217	0.000	0.000	47.330	45.267	125.537	MWD+IFR1+MS
•	14100.000	90.000	179.641	11699.997	35.659	0.000	46.299	-0.000	35.659	0.000	0.000	47.466	45.462	129.616	MWD+IFR1+MS
	14200.000	90.000	179.641	11699.997	36.113	0.000	46.622	-0.000	36.113	0.000	0.000	47.628	45.640	133.990	MWD+IFR1+MS
•	14300.000	90.000	179.641	11699.997	36.579	0.000	46.955	-0.000	36.579	0.000	0.000	47.819	45.801	-41.529	MWD+IFR1+MS
	14400.000	90.000	179.641	11699.997	37.054	0.000	47.298	-0.000	37.054	0.000	0.000	48.041	45.941	<b>-</b> 37.158	MWD+IFR1+MS
•	14500.000	90.000	179.641	11699.997	37.541	0.000	47.651	-0.000	37.541	0.000	0.000	48.292	46.063	-33.084	MWD+IFR1+MS
•	14600.000	90.000	179.641	11699.997	38.037	0.000	48.014	-0.000	38.037	0.000	0.000	48.570	46.168	-29.425	MWD+IFR1+MS
•	14700.000	90.000	179.641	11699.997	38.543	0.000	48.386	-0.000	38.543	0.000	0.000	48.872	46.259	-26.224	MWD+IFR1+MS
	14800.000	90.000	179.641	11699.997	39.058	0.000	48.767	-0.000	39.058	0.000	0.000	49.196	46.338	-23.465	MWD+IFR1+MS
•	14900.000	90.000	179.641	11699.997	39.582	0.000	49.157	-0.000	39.582	0.000	0.000	49.539	46.408	-21.108	MWD+IFR1+MS
•	15000.000	90.000	179.641	11699.997	40.114	0.000	49.556	-0.000	40.114	0.000	0.000	49.899	46.470	-19.096	MWD+IFR1+MS
•	15100.000	90.000	179.641	11699.997	40.655	0.000	49.963	-0.000	40.655	0.000	0.000	50.273	46.526	-17.376	MWD+IFR1+MS
	15200.000	90.000	179.641	11699.997	41.204	0.000	50.379	-0.000	41.204	0.000	0.000	50.661	46.578	-15.900	MWD+IFR1+MS
•	15300.000	90.000	179.641	11699.997	41.760	0.000	50.803	-0.000	41.760	0.000	0.000	51.061	46.627	-14.626	MWD+IFR1+MS
•	15400.000	90.000	179.641	11699.997	42.323	0.000	51.235	-0.000	42.323	0.000	0.000	51.472	46.673	-13.520	MWD+IFR1+MS
•	15500.000	90.000	179.641	11699.997	42.893	0.000	51.674	-0.000	42.893	0.000	0.000	51.894	46.716	-12.554	MWD+IFR1+MS
•	15600.000	90.000	179.641	11699.997	43.470	0.000	52.121	-0.000	43.470	0.000	0.000	52.326	46.759	-11.705	MWD+IFR1+MS
•	15700.000	90.000	179.641	11699.997	44.053	0.000	52.576	-0.000	44.053	0.000	0.000	52.766	46.800	-10.955	MWD+IFR1+MS

15800.000	90.000	179.641	11699.997	44.643	0.000	53.037	-0.000	44.643	0.000	0.000	53.216	46.840	-10.288 MWD+IFR1+MS
15900.000	90.000	179.641	11699.997	45.238	0.000	53.506	-0.000	45.238	0.000	0.000	53.674	46.879	-9.693 MWD+IFR1+MS
16000.000	90.000	179.641	11699.997	45.840	0.000	53.981	-0.000	45.840	0.000	0.000	54.139	46.918	-9.158 MWD+IFR1+MS
16100.000	90.000	179.641	11699.997	46.446	0.000	54.463	-0.000	46.446	0.000	0.000	54.612	46.956	-8.676 MWD+IFR1+MS
16200.000	90.000	179.641	11699.997	47.058	0.000	54.952	-0.000	47.058	0.000	0.000	55.093	46.994	-8.239 MWD+IFR1+MS
16300.000	90.000	179.641	11699.997	47.675	0.000	55.446	-0.000	47.675	0.000	0.000	55.580	47.032	-7.842 MWD+IFR1+MS
16400.000	90.000	179.641	11699.997	48.297	0.000	55.947	-0.000	48.297	0.000	0.000	56.075	47.070	-7.480 MWD+IFR1+MS
16500.000	90.000	179.641	11699.997	48.923	0.000	56.454	-0.000	48.923	0.000	0.000	56.575	47.108	-7.148 MWD+IFR1+MS
16600.000	90.000	179.641	11699.997	49.554	0.000	56.967	-0.000	49.554	0.000	0.000	57.082	47.146	-6.843 MWD+IFR1+MS
16700.000	90.000	179.641	11699.997	50.190	0.000	57.485	-0.000	50.190	0.000	0.000	57.595	47.185	-6.562 MWD+IFR1+MS
16800.000	90.000	179.641	11699.997	50.829	0.000	58.008	-0.000	50.829	0.000	0.000	58.114	47.223	-6.303 MWD+IFR1+MS
16900.000	90.000	179.641	11699.997	51.473	0.000	58.537	-0.000	51.473	0.000	0.000	58.639	47.262	-6.063 MWD+IFR1+MS
17000.000	90.000	179.641	11699.997	52.120	0.000	59.071	-0.000	52.120	0.000	0.000	59.169	47.301	-5.839 MWD+IFR1+MS
17100.000	90.000	179.641	11699.997	52.772	0.000	59.611	-0.000	52.772	0.000	0.000	59.704	47.340	-5.632 MWD+IFR1+MS
17200.000	90.000	179.641	11699.997	53.426	0.000	60.155	-0.000	53.426	0.000	0.000	60.245	47.380	-5.438 MWD+IFR1+MS
17300.000	90.000	179.641	11699.997	54.085	0.000	60.704	-0.000	54.085	0.000	0.000	60.790	47.420	-5.256 MWD+IFR1+MS
17400.000	90.000	179.641	11699.997	54.746	0.000	61.257	-0.000	54.746	0.000	0.000	61.341	47.460	-5.087 MWD+IFR1+MS
17500.000	90.000	179.641	11699.997	55.411	0.000	61.815	-0.000	55.411	0.000	0.000	61.896	47.501	-4.927 MWD+IFR1+MS
17600.000	90.000	179.641	11699.997	56.079	0.000	62.378	-0.000	56.079	0.000	0.000	62.456	47.542	-4.778 MWD+IFR1+MS
17700.000	90.000	179.641	11699.997	56.750	0.000	62.944	-0.000	56.750	0.000	0.000	63.020	47.584	-4.637 MWD+IFR1+MS
17800.000	90.000	179.641	11699.997	57.423	0.000	63.515	-0.000	57.423	0.000	0.000	63.588	47.626	-4.504 MWD+IFR1+MS
17900.000	90.000	179.641	11699.997	58.100	0.000	64.090	-0.000	58.100	0.000	0.000	64.161	47.668	-4.378 MWD+IFR1+MS
18000.000	90.000	179.641	11699.997	58.779	0.000	64.669	-0.000	58.779	0.000	0.000	64.738	47.711	-4.259 MWD+IFR1+MS
18100.000	90.000	179.641	11699.997	59.461	0.000	65.252	-0.000	59.461	0.000	0.000	65.318	47.754	-4.147 MWD+IFR1+MS
18200.000	90.000	179.641	11699.997	60.145	0.000	65.839	-0.000	60.145	0.000	0.000	65.903	47.798	-4.040 MWD+IFR1+MS
18300.000	90.000	179.641	11699.997	60.832	0.000	66.429	-0.000	60.832	0.000	0.000	66.491	47.842	-3.939 MWD+IFR1+MS
18400.000	90.000	179.641	11699.997	61.521	0.000	67.023	-0.000	61.521	0.000	0.000	67.083	47.887	-3.843 MWD+IFR1+MS
18500.000	90.000	179.641	11699.997	62.213	0.000	67.620	-0.000	62.213	0.000	0.000	67.679	47.932	-3.751 MWD+IFR1+MS
18600.000	90.000	179.641	11699.997	62.906	0.000	68.220	-0.000	62.906	0.000	0.000	68.278	47.978	-3.664 MWD+IFR1+MS
18700.000	90.000	179.641	11699.997	63.602	0.000	68.824	-0.000	63,602	0.000	0.000	68.880	48.024	-3.580 MWD+IFR1+MS
18800.000	90.000	179.641	11699.997	64.300	0.000	69.431	-0.000	64.300	0.000	0.000	69.486	48.071	-3.501 MWD+IFR1+MS
18900.000	90.000	179.641	11699.997	64.999	0.000	70.041	-0.000	64.999	0.000	0.000	70.094	48.118	-3.425 MWD+IFR1+MS
19000.000	90.000	179.641	11699.997	65.701	0.000	70.654	-0.000	65.701	0.000	0.000	70.706	48.166	-3.353 MWD+IFR1+MS

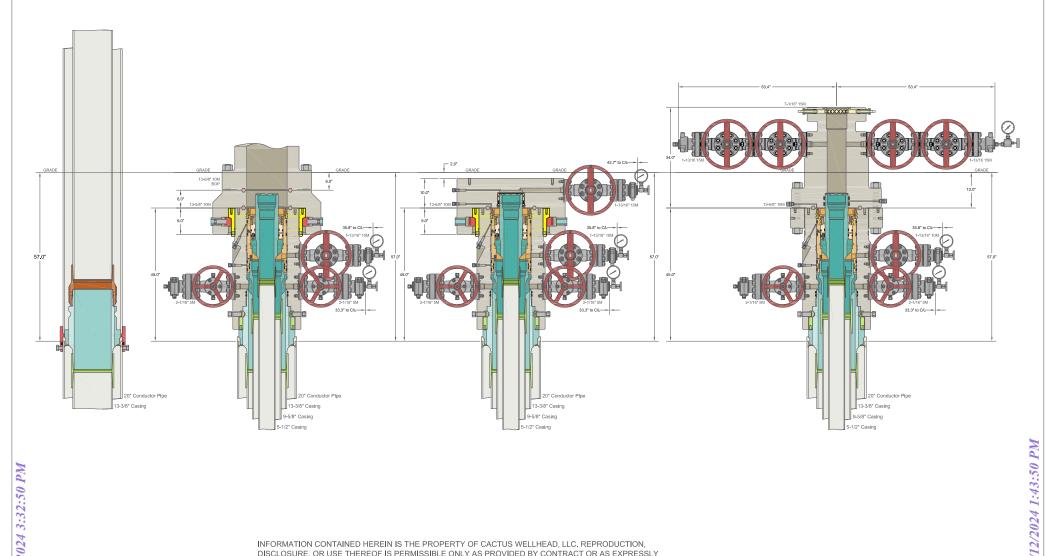
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19100.000	90.000	179.641	11699.997	66.405	0.000	71.271	-0.000	66.405	0.000	0.000	71.321	48.214	-3.283	MWD+IFR1+MS
19200.000	90.000	179.641	11699.997	67.110	0.000	71.890	-0.000	67.110	0.000	0.000	71.939	48.262	-3.217	MWD+IFR1+MS
19300.000	90.000	179.641	11699.997	67.817	0.000	72.511	-0.000	67.817	0.000	0.000	72.559	48.312	-3.153	MWD+IFR1+MS
19400.000	90.000	179.641	11699.997	68.526	0.000	73.136	-0.000	68.526	0.000	0.000	73.183	48.361	-3.091	MWD+IFR1+MS
19500.000	90.000	179.641	11699.997	69.236	0.000	73.763	-0.000	69.236	0.000	0.000	73.809	48.411	-3.033	MWD+IFR1+MS
19600.000	90.000	179.641	11699.997	69.948	0.000	74.393	-0.000	69.948	0.000	0.000	74.437	48.462	-2.976	MWD+IFR1+MS
19700.000	90.000	179.641	11699.997	70.662	0.000	75.025	-0.000	70.662	0.000	0.000	75.069	48.513	-2.922	MWD+IFR1+MS
19800.000	90.000	179.641	11699.997	71.377	0.000	75.660	-0.000	71.377	0.000	0.000	75.703	48.565	-2.870	MWD+IFR1+MS
19900.000	90.000	179.641	11699.997	72.093	0.000	76.297	-0.000	72.093	0.000	0.000	76.339	48.617	-2.819	MWD+IFR1+MS
20000.000	90.000	179.641	11699.997	72.811	0.000	76.936	-0.000	72.811	0.000	0.000	76.977	48.670	-2.771	MWD+IFR1+MS
20100.000	90.000	179.641	11699.997	73.530	0.000	77.578	-0.000	73.530	0.000	0.000	77.618	48.723	-2.724	MWD+IFR1+MS
20200.000	90.000	179.641	11699.997	74.251	0.000	78.222	-0.000	74.251	0.000	0.000	78.261	48.777	-2.679	MWD+IFR1+MS
20300.000	90.000	179.641	11699.997	74.973	0.000	78.868	-0.000	74.973	0.000	0.000	78.907	48.831	-2.635	MWD+IFR1+MS
20400.000	90.000	179.641	11699.997	75.696	0.000	79.517	-0.000	75.696	0.000	0.000	79.554	48.885	-2.593	MWD+IFR1+MS
20500.000	90.000	179.641	11699.997	76.420	0.000	80.167	-0.000	76.420	0.000	0.000	80.204	48.941	<b>-</b> 2.553	MWD+IFR1+MS
20600.000	90.000	179.641	11699.997	77.146	0.000	80.820	-0.000	77.146	0.000	0.000	80.856	48.996	-2.514	MWD+IFR1+MS
20700.000	90.000	179.641	11699.997	77.872	0.000	81.474	-0.000	77.872	0.000	0.000	81.509	49.052	-2.476	MWD+IFR1+MS
20800.000	90.000	179.641	11699.997	78.600	0.000	82.130	-0.000	78.600	0.000	0.000	82.165	49.109	-2.439	MWD+IFR1+MS
20900.000	90.000	179.641	11699.997	79.329	0.000	82.788	-0.000	79.329	0.000	0.000	82.822	49.166	-2.403	MWD+IFR1+MS
21000.000	90.000	179.641	11699.997	80.059	0.000	83.448	-0.000	80.059	0.000	0.000	83.482	49.224	-2.369	MWD+IFR1+MS
21100.000	90.000	179.641	11699.997	80.790	0.000	84.110	-0.000	80.790	0.000	0.000	84.143	49.282	-2.336	MWD+IFR1+MS
21200.000	90.000	179.641	11699.997	81.522	0.000	84.774	-0.000	81.522	0.000	0.000	84.806	49.341	-2.303	MWD+IFR1+MS
21300.000	90.000	179.641	11699.997	82.255	0.000	85.439	-0.000	82.255	0.000	0.000	85.471	49.400	<b>-</b> 2.272	MWD+IFR1+MS
21400.000	90.000	179.641	11699.997	82.989	0.000	86.106	-0.000	82.989	0.000	0.000	86.137	49.460	-2.241	MWD+IFR1+MS
21500.000	90.000	179.641	11699.997	83.723	0.000	86.774	-0.000	83.723	0.000	0.000	86.805	49.520	-2.212	MWD+IFR1+MS
21600.000	90.000	179.641	11699.997	84.459	0.000	87.445	-0.000	84.459	0.000	0.000	87.475	49.580	-2.183	MWD+IFR1+MS
21700.000	90.000	179.641	11699.997	85.196	0.000	88.116	-0.000	85.196	0.000	0.000	88.146	49.642	<b>-</b> 2.155	MWD+IFR1+MS
21800.000	90.000	179.641	11699.997	85.933	0.000	88.789	-0.000	85.933	0.000	0.000	88.819	49.703	-2.128	MWD+IFR1+MS
21900.000	90.000	179.641	11699.997	86.671	0.000	89.464	-0.000	86.671	0.000	0.000	89.493	49.765	-2.102	MWD+IFR1+MS
22000.000	90.000	179.641	11699.997	87.410	0.000	90.140	-0.000	87.410	0.000	0.000	90.168	49.828	-2.076	MWD+IFR1+MS
22100.000	90.000	179.641	11699.997	88.150	0.000	90.818	-0.000	88.150	0.000	0.000	90.846	49.891	-2.051	MWD+IFR1+MS
22200.000	90.000	179.641	11699.997	88.891	0.000	91.497	-0.000	88.891	0.000	0.000	91.524	49.955	-2.027	MWD+IFR1+MS
22300.000	90.000	179.641	11699.997	89.632	0.000	92.177	-0.000	89.632	0.000	0.000	92.204	50.019	-2.003	MWD+IFR1+MS

22400.000	90.000	179.641	11699.997	90.374	0.000	92.859	-0.000	90.374	0.000	0.000	92.885	50.083	-1.980 MWD+IFR1+MS	;
22500.000	90.000	179.641	11699.997	91.117	0.000	93.542	-0.000	91.117	0.000	0.000	93.568	50.148	-1.958 MWD+IFR1+MS	;
22600.000	90.000	179.641	11699.997	91.861	0.000	94.226	-0.000	91.861	0.000	0.000	94.252	50.214	-1.936 MWD+IFR1+MS	;
22700.000	90.000	179.641	11699.997	92.605	0.000	94.911	-0.000	92.605	0.000	0.000	94.937	50.280	-1.915 MWD+IFR1+MS	;
22800.000	90.000	179.641	11699.997	93.350	0.000	95.598	-0.000	93.350	0.000	0.000	95.623	50.346	-1.894 MWD+IFR1+MS	;
22900.000	90.000	179.641	11699.997	94.095	0.000	96.286	-0.000	94.095	0.000	0.000	96.310	50.413	-1.874 MWD+IFR1+MS	;
23000.000	90.000	179.641	11699.997	94.842	0.000	96.975	-0.000	94.842	0.000	0.000	96.999	50.480	-1.854 MWD+IFR1+MS	;
23100.000	90.000	179.641	11699.997	95.588	0.000	97.665	-0.000	95.588	0.000	0.000	97.689	50.548	-1.835 MWD+IFR1+MS	;
23200.000	90.000	179.641	11699.997	96.336	0.000	98.357	-0.000	96.336	0.000	0.000	98.380	50.617	-1.816 MWD+IFR1+MS	;
23300.000	90.000	179.641	11699.997	97.084	0.000	99.049	-0.000	97.084	0.000	0.000	99.072	50.685	-1.798 MWD+IFR1+MS	;
23400.000	90.000	179.641	11699.997	97.832	0.000	99.742	-0.000	97.832	0.000	0.000	99.765	50.755	-1.780 MWD+IFR1+MS	;
23500.000	90.000	179.641	11699.997	98.581	0.000	100.437	-0.000	98.581	0.000	0.000	100.459	50.824	-1.762 MWD+IFR1+MS	;
23600.000	90.000	179.641	11699.997	99.331	0.000	101.132	-0.000	99.331	0.000	0.000	101.155	50.895	-1.745 MWD+IFR1+MS	;
23700.000	90.000	179.641	11699.997	100.081	0.000	101.829	-0.000	100.081	0.000	0.000	101.851	50.965	-1.729 MWD+IFR1+MS	;
23800.000	90.000	179.641	11699.997	100.832	0.000	102.526	-0.000	100.832	0.000	0.000	102.548	51.036	-1.712 MWD+IFR1+MS	;
23900.000	90.000	179.641	11699.997	101.583	0.000	103.225	-0.000	101.583	0.000	0.000	103.246	51.108	-1.696 MWD+IFR1+MS	;
24000.000	90.000	179.641	11699.997	102.335	0.000	103.924	-0.000	102.335	0.000	0.000	103.945	51.180	-1.681 MWD+IFR1+MS	;
24100.000	90.000	179.641	11699.997	103.087	0.000	104.625	-0.000	103.087	0.000	0.000	104.645	51.252	-1.666 MWD+IFR1+MS	;
24200.000	90.000	179.641	11699.997	103.840	0.000	105.326	-0.000	103.840	0.000	0.000	105.346	51.325	-1.651 MWD+IFR1+MS	;
24300.000	90.000	179.641	11699.997	104.593	0.000	106.028	-0.000	104.593	0.000	0.000	106.048	51.399	-1.636 MWD+IFR1+MS	;
24400.000	90.000	179.641	11699.997	105.347	0.000	106.731	-0.000	105.347	0.000	0.000	106.751	51.472	-1.622 MWD+IFR1+MS	;
24413.518	90.000	179.641	11699.997	105.448	0.000	106.826	-0.000	105.448	0.000	0.000	106.846	51.482	-1.620 MWD+IFR1+MS	j
24503.520	90.000	179.641	11699.997	106.126	0.000	107.458	-0.000	106.126	0.000	0.000	107.478	51.549	-1.607 MWD+IFR1+MS	;

Plan Targets Poker Lake Unit 21 DTD South 122H

	Measured Depth	Grid Northing	Grid Easting	TVD MSL Target Shape
Target Name	(ft)	(ft)	(ft)	(ft)
FTP 7	11900.80	440418.80	636343.60	8352.00 RECTANGLE
SHL 1	12128.25	440283.10	636057.32	8490.00 RECTANGLE
LTP 7	24413.53	427410.00	636425.10	8352.00 RECTANGLE
BHL 7	24503.69	427320.00	636425.50	8352.00 RECTANGLE



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC		TO ENERGY ELAWARE BA	0,0
(20") x 13-3/8" x 9-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO-SF Wellhead	DRAWN	VJK	31MAR2
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head	APPRV		ease
And Drilling & Skid Configurations	DRAWING N	o. <b>SDT-2</b>	856

**<u>Subject:</u>** 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.

Tak	ole C.4—Initial Pressure Te	esting, Surface BOP Stacks	
	Pressure Test—Low	Pressure Test—	-High Pressure <sup>ac</sup>
Component to be Pressure Tested	Pressure <sup>ac</sup> psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers <sup>bd</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokese	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or M whichever is lower	MASP for the well program,
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	
Annular(s) and VBR(s) shall be pre	during the evaluation period. The passure tested on the largest and sm	oressure shall not decrease below the allest OD drill pipe to be used in well	program.
	from one wellhead to another within when the integrity of a pressure se	n the 21 days, pressure testing is req	uired for pressure-containing an

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 Oand 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

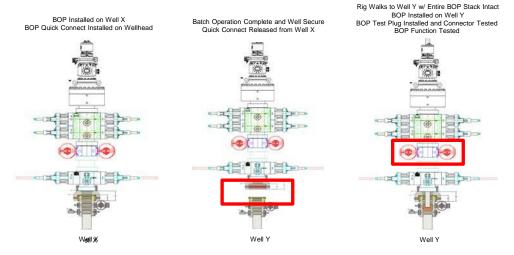
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

# **Procedures**

- 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



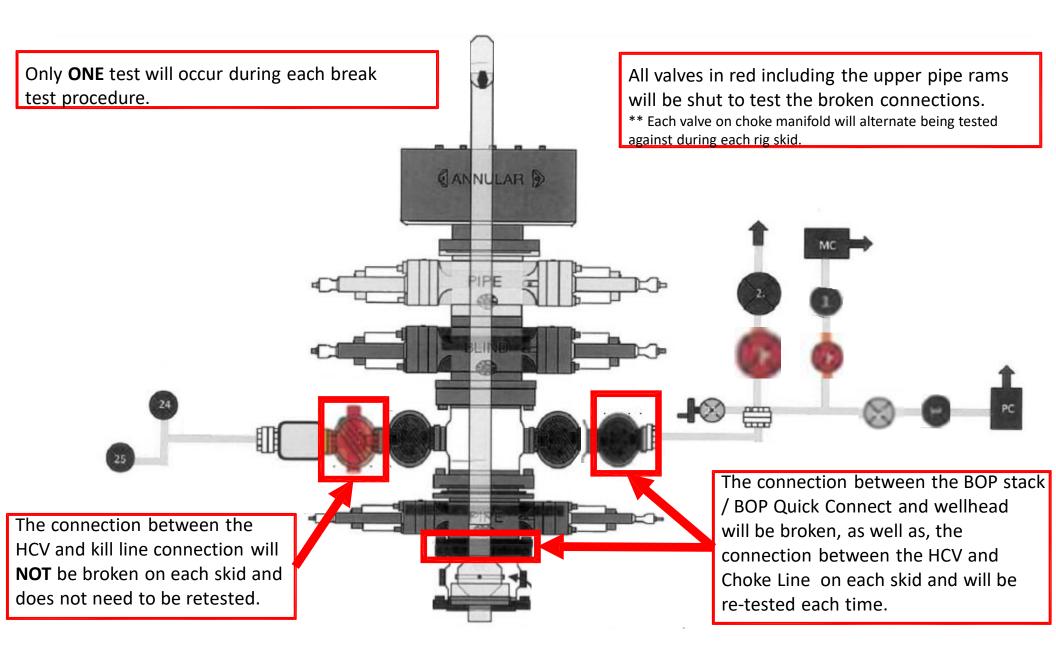
## **Summary**

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.



# 10,000 PSI Annular BOP Variance Request

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

# 1. Component and Preventer Compatibility Tables

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

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

# 2. Well Control Procedures

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

# **General Procedure While Drilling**

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

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

# **General Procedure While Tripping**

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

# General Procedure While Running Production Casing

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

## General Procedure With No Pipe In Hole (Open Hole)

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

# General Procedures While Pulling BHA Through Stack

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

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

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

CONDITIONS

Action 360213

# **CONDITIONS**

Operator:	OGRID:
XTO PERMIAN OPERATING LLC.	373075
6401 HOLIDAY HILL ROAD	Action Number:
MIDLAND, TX 79707	360213
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created I	Ву	Condition	Condition Date
ward.ri	ikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	7/12/2024