Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No. NMLC063875A

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No. POKER LAKE/NMNM071016X, NMNM71016X

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

8. Well Name and No. POKER LAKE UNIT 26 BD/154H

2. Name of Operator XTO PERMIAN OPERATING LLC

9. API Well No. 3001547990

3a. Address 6401 Holiday Hill Road, Bldg 5, Midland, TX 7970

3b. Phone No. *(include area code)* (432) 682-8873

10. Field and Pool or Exploratory Area PURPLE SAGE/WOLFCAMP

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SEC 26/T25S/R30E/NMP

11. Country or Parish, State EDDY/NM

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

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

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

**Pool Change, Spacing, Casing/Cement, Drilling Variance Changes

XTO Permian Operating, LLC requests permission to make the following changes to the original APD:

No Additional Surface Disturbance

Change Pool from: Purple Sage; Wolfcamp (Gas) to Wildcat; Bone Spring

Change BHL fr/200FSL & 2310FWLL to 201FSL & 441FWL, Section 35-T25S-R30E
Casing/Cement design per the attached drilling program.

Attachments:

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)* STEPHANIE RABADUE / Ph: (432) 620-6714

Title Regulatory Coordinator

Signature

Date 03/18/2022

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by JENNIFER SANCHEZ / Ph: (575) 627-0237 / Approved

Title Petroleum Engineer

Date 03/18/2022

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 CARLSBAD

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

Additional Information

Additional Remarks

C102

Drilling Program

Directional Plan

Multibowl Diagram

Location of Well

0. SHL: SENW / 2155 FNL / 1915 FWL / TWSP: 25S / RANGE: 30E / SECTION: 26 / LAT: 32.102599 / LONG: -103.85424 (TVD: 0 feet, MD: 0 feet)

PPP: NESW / 2310 FSL / 2310 FWL / TWSP: 25S / RANGE: 30E / SECTION: 26 / LAT: 32.100216 / LONG: -103.852973 (TVD: 12088 feet, MD: 12437 feet)

BHL: SESW / 200 FSL / 2310 FWL / TWSP: 25S / RANGE: 30E / SECTION: 35 / LAT: 32.079768 / LONG: -103.853067 (TVD: 12088 feet, MD: 19876 feet)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

PRE-COMPLETION

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-47990	97814	Wildcat; Bone Spring

[4] Property Code	[5] Property Name	[6] Well Number
	POKER LAKE UNIT 26 BD	154H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,312'

[10] Surface Location

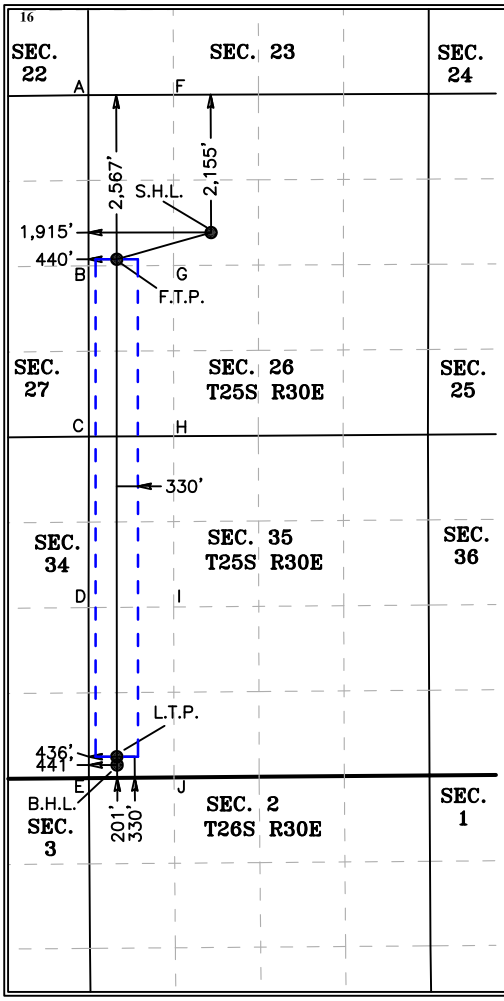
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	26	25 S	30 E		2,155	NORTH	1,915	WEST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	25 S	30 E		201	SOUTH	441	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
240			

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. NOTE: DATA FURNISHED BY XTO ENERGY



SHL (NAD83 NME)		LTP (NAD83 NME)	
Y =	401,391.8	Y =	393,203.0
X =	689,685.8	X =	688,212.0
LAT. =	32.102599 °N	LAT. =	32.080107 °N
LONG. =	103.854240 °W	LONG. =	103.859116 °W
FTP (NAD83 NME)		**BHL (NAD83 NME)**	
Y =	400,974.8	Y =	393,074.6
X =	688,211.7	X =	688,216.8
LAT. =	32.101471 °N	LAT. =	32.079754 °N
LONG. =	103.859007 °W	LONG. =	103.859102 °W

CORNER COORDINATES (NAD83 NME)

A - Y =	403,539.9 N ,	X =	687,768.3 E
B - Y =	400,871.2 N ,	X =	687,771.6 E
C - Y =	398,204.6 N ,	X =	687,775.9 E
D - Y =	395,532.5 N ,	X =	687,772.0 E
E - Y =	392,869.6 N ,	X =	687,776.5 E
F - Y =	403,544.7 N ,	X =	689,097.1 E
G - Y =	400,877.5 N ,	X =	689,098.2 E
H - Y =	398,211.5 N ,	X =	689,099.6 E
I - Y =	395,542.5 N ,	X =	689,100.7 E
J - Y =	392,880.1 N ,	X =	689,105.9 E

SHL (NAD27 NME)		LTP (NAD27 NME)	
Y =	401,333.8	Y =	393,145.3
X =	648,500.4	X =	647,026.4
LAT. =	32.102475 °N	LAT. =	32.079983 °N
LONG. =	103.853760 °W	LONG. =	103.858636 °W
FTP (NAD27 NME)		**BHL (NAD27 NME)**	
Y =	400,916.8	Y =	393,016.8
X =	647,026.4	X =	647,031.2
LAT. =	32.101346 °N	LAT. =	32.079629 °N
LONG. =	103.858526 °W	LONG. =	103.858623 °W

CORNER COORDINATES (NAD27 NME)

A - Y =	403,481.9 N ,	X =	646,583.1 E
B - Y =	400,813.3 N ,	X =	646,586.3 E
C - Y =	398,146.7 N ,	X =	646,590.5 E
D - Y =	395,474.6 N ,	X =	646,586.6 E
E - Y =	392,811.8 N ,	X =	646,590.9 E
F - Y =	403,486.7 N ,	X =	647,911.9 E
G - Y =	400,819.5 N ,	X =	647,912.8 E
H - Y =	398,153.6 N ,	X =	647,914.2 E
I - Y =	395,484.6 N ,	X =	647,915.2 E
J - Y =	392,822.3 N ,	X =	647,920.3 E

[17] OPERATOR CERTIFICATION

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

Stephanie Rabadue 01/30/2022
Signature Date

Stephanie Rabadue
Printed Name

stephanie.rabadue@exxonmobil.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

1-24-2022
Date of Survey

Signatue and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number LM 2018010073

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

XTO Energy Inc.
PLU 26 Brushy Draw 154H
Projected TD: 17543' MD / 9650' TVD
SHL: 2155' FNL & 1915' FWL , Section 26, T25S, R30E
BHL: 200' FSL & 440' FWL , Section 35, 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	952'	Water
Top of Salt	1102'	Water
Base of Salt	3860'	Water
Delaware	3952'	Water
Brushy Canyon	6459'	Water/Oil/Gas
Bone Spring	7774'	Water
1st Bone Spring Ss	8744'	Water/Oil/Gas
2nd Bone Spring Ss	9564'	Water/Oil/Gas
Target/Land Curve	9650'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon
*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9.625 inch casing @ 1052' (50' 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 7.625 inch casing at 8540' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 17543 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 8240 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1052'	9.625	40	J-55	BTC	New	1.63	5.40	14.97
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	3.27	2.65	2.20
8.75	4000' – 8540'	7.625	29.7	HC L-80	Flush Joint	New	2.38	2.35	3.01
6.75	0' – 8440'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.53	2.51
6.75	8440' - 17543'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.21	2.51

· 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
· 7.625 Collapse analyzed using 50% evacuation based on regional experience.
· 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
· Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
· XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System
A. Starting Head: 11" 10M top flange x 9-5/8" SOW 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.
· Operator will test the 7-5/8" casing per BLM Onshore Order 2

· Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 1052'

Lead: 250 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 130 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: 7.625, 29.7 New casing to be set at +/- 8540'
1st Stage
Optional Lead: 350 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: 190 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 6459
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: 730 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 (6459') 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 include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

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-Flush, RY P-110 casing to be set at +/- 17543'

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 8240 feet
Tail: 590 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9316 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 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 2895 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 9.625, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 7.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

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

hole on each of the wells.

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1052'	12.25	FW/Native	8.7-9.2	35-40	NC
1052' - 8540'	8.75	FW / Cut Brine / Direct Emulsion	9.7-10.2	30-32	NC
8540' - 17543'	6.75	OBM	10-10.5	50-60	NC - 20

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

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

7. Auxiliary Well Control and Monitoring Equipment

A. A Kelly cock will be in the drill string at all times.
B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
C. H2S monitors will be on location when drilling below the 9.625 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 160 to 180 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 5018 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 - PLU 26 Brushy Draw 154H

Measured Depth:	17567.00 ft	**Site:**	PLU 26 BD Pad B
TVD RKB:	9650.00 ft	**Slot:**	PLU 26 Brushy Draw 154H
Location			
Cartographic Reference System:	New Mexico East - NAD 27		
Northing:	401328.55 ft		
Easting:	648511.31 ft		
RKB:	3350.00 ft		
Ground Level:	3320.00 ft		
North Reference:	Grid		
Convergence Angle:	0.25 Deg		

Plan Sections PLU 26 Brushy Draw 154H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	
3567.15	21.34	254.20	3542.64	-53.49	-189.05	2.00	0.00	2.00	
6696.48	21.34	254.20	6457.36	-363.52	-1284.96	0.00	0.00	0.00	
7763.63	0.00	0.00	7500.00	-417.00	-1474.01	-2.00	0.00	2.00	
9340.63	0.00	0.00	9077.00	-417.00	-1474.01	0.00	0.00	0.00	
10240.63	90.00	180.00	9649.96	-989.96	-1474.01	10.00	0.00	10.00	PLU 26 BD FTP 5
17567.71	90.00	180.00	9650.00	-8317.04	-1469.23	0.00	0.00	0.00	PLU 26 BD LTP 5

Position Uncertainty PLU 26 Brushy Draw 154H

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD RKB (ft)	Highside Error (ft)	Highside Bias (ft)	Lateral Error (ft)	Lateral Bias (ft)	Vertical Error (ft)	Vertical Bias (ft)	Magnitude of Bias (ft)	Semi-major Error (ft)	Semi-minor Error (ft)	Semi-minor Azimuth (°)	Tool Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.297	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.468	0.000	0.468	0.000	2.299	0.000	0.000	0.556	0.358	135.000	MWD+IFR1+MS
200.000	0.000	0.000	200.000	0.983	0.000	0.983	0.000	2.307	0.000	0.000	1.191	0.717	135.000	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.403	0.000	1.403	0.000	2.321	0.000	0.000	1.668	1.075	135.000	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.797	0.000	1.797	0.000	2.340	0.000	0.000	2.099	1.434	135.000	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.179	0.000	2.179	0.000	2.364	0.000	0.000	2.507	1.792	135.000	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.554	0.000	2.554	0.000	2.393	0.000	0.000	2.902	2.151	135.000	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.925	0.000	2.925	0.000	2.428	0.000	0.000	3.288	2.509	135.000	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.292	0.000	3.292	0.000	2.467	0.000	0.000	3.669	2.867	135.000	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.659	0.000	3.659	0.000	2.511	0.000	0.000	4.046	3.226	135.000	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.024	0.000	4.024	0.000	2.559	0.000	0.000	4.420	3.584	135.000	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.387	0.000	4.387	0.000	2.613	0.000	0.000	4.791	3.943	135.000	MWD+IFR1+MS
1200.000	0.000	0.000	1200.000	4.751	0.000	4.751	0.000	2.670	0.000	0.000	5.161	4.302	135.000	MWD+IFR1+MS
1300.000	0.000	0.000	1300.000	5.113	0.000	5.113	0.000	2.731	0.000	0.000	5.529	4.660	135.000	MWD+IFR1+MS
1400.000	0.000	0.000	1400.000	5.474	0.000	5.474	0.000	2.797	0.000	0.000	5.896	5.018	135.000	MWD+IFR1+MS
1500.000	0.000	0.000	1500.000	5.836	0.000	5.836	0.000	2.866	0.000	0.000	6.262	5.377	135.000	MWD+IFR1+MS
1600.000	0.000	0.000	1600.000	6.197	0.000	6.197	0.000	2.939	0.000	0.000	6.627	5.735	135.000	MWD+IFR1+MS

1700.000	0.000	0.000	1700.000	6.558	0.000	6.558	0.000	3.015	0.000	0.000	6.992	6.094	135.000	MWD+IFR1+MS
1800.000	0.000	0.000	1800.000	6.918	0.000	6.918	0.000	3.095	0.000	0.000	7.355	6.452	135.000	MWD+IFR1+MS
1900.000	0.000	0.000	1900.000	7.279	0.000	7.279	0.000	3.178	0.000	0.000	7.719	6.811	135.000	MWD+IFR1+MS
2000.000	0.000	0.000	2000.000	7.639	0.000	7.639	0.000	3.265	0.000	0.000	8.081	7.169	135.000	MWD+IFR1+MS
2100.000	0.000	0.000	2100.000	7.999	0.000	7.999	0.000	3.354	0.000	0.000	8.444	7.527	135.000	MWD+IFR1+MS
2200.000	0.000	0.000	2200.000	8.359	0.000	8.359	0.000	3.447	0.000	0.000	8.806	7.886	135.000	MWD+IFR1+MS
2300.000	0.000	0.000	2300.000	8.718	0.000	8.718	0.000	3.544	0.000	0.000	9.168	8.244	135.000	MWD+IFR1+MS
2400.000	0.000	0.000	2400.000	9.079	0.000	9.079	0.000	3.643	0.000	0.000	9.530	8.603	135.000	MWD+IFR1+MS
2500.000	0.000	0.000	2500.000	9.438	0.000	9.438	0.000	3.744	0.000	0.000	9.891	8.961	135.000	MWD+IFR1+MS
2600.000	1.999	254.200	2599.980	10.027	-0.000	9.543	0.000	3.848	0.000	0.000	10.217	9.345	-43.740	MWD+IFR1+MS
2700.000	4.000	254.200	2699.838	10.579	-0.000	9.887	0.000	3.956	0.000	0.000	10.691	9.788	-34.709	MWD+IFR1+MS
2800.000	6.000	254.200	2799.452	11.108	-0.000	10.233	0.000	4.068	0.000	0.000	11.193	10.189	-27.507	MWD+IFR1+MS
2900.000	7.999	254.200	2898.702	11.610	-0.000	10.581	0.000	4.186	0.000	0.000	11.703	10.566	-22.361	MWD+IFR1+MS
3000.000	10.000	254.200	2997.465	12.084	-0.000	10.924	0.000	4.310	0.000	0.000	12.209	10.920	-18.653	MWD+IFR1+MS
3100.000	11.990	254.200	3095.623	12.540	-0.000	11.273	0.000	4.444	0.000	0.000	12.713	11.273	-15.967	MWD+IFR1+MS
3200.000	14.000	254.200	3193.055	12.969	-0.000	11.617	0.000	4.587	0.000	0.000	13.202	11.615	-13.955	MWD+IFR1+MS
3300.000	15.990	254.200	3289.643	13.381	-0.000	11.963	0.000	4.741	0.000	0.000	13.684	11.957	-12.395	MWD+IFR1+MS
3400.000	18.000	254.200	3385.268	13.772	-0.000	12.312	0.000	4.908	0.000	0.000	14.154	12.299	-11.165	MWD+IFR1+MS
3500.000	19.990	254.200	3479.816	14.146	-0.000	12.663	0.000	5.087	0.000	0.000	14.614	12.642	-10.166	MWD+IFR1+MS
3567.100	21.340	254.200	3542.638	14.320	-0.000	12.891	0.000	5.190	0.000	0.000	14.860	12.868	-9.863	MWD+IFR1+MS
3600.000	21.340	254.200	3573.239	14.422	-0.000	13.003	0.000	5.234	0.000	0.000	14.957	12.980	-9.842	MWD+IFR1+MS
3700.000	21.340	254.200	3666.381	14.730	-0.000	13.352	0.000	5.380	0.000	0.000	15.246	13.329	-9.681	MWD+IFR1+MS
3800.000	21.340	254.200	3759.523	15.054	-0.000	13.710	0.000	5.534	0.000	0.000	15.551	13.685	-9.303	MWD+IFR1+MS
3900.000	21.340	254.200	3852.665	15.382	-0.000	14.070	0.000	5.693	0.000	0.000	15.859	14.043	-8.924	MWD+IFR1+MS
4000.000	21.340	254.200	3945.806	15.715	-0.000	14.435	0.000	5.857	0.000	0.000	16.171	14.405	-8.559	MWD+IFR1+MS
4100.000	21.340	254.200	4038.948	16.054	-0.000	14.804	0.000	6.027	0.000	0.000	16.489	14.772	-8.193	MWD+IFR1+MS
4200.000	21.340	254.200	4132.090	16.397	-0.000	15.174	0.000	6.199	0.000	0.000	16.810	15.140	-7.825	MWD+IFR1+MS
4300.000	21.340	254.200	4225.232	16.746	-0.000	15.544	0.000	6.377	0.000	0.000	17.137	15.508	-7.442	MWD+IFR1+MS
4400.000	21.340	254.200	4318.374	17.099	-0.000	15.919	0.000	6.558	0.000	0.000	17.467	15.881	-7.072	MWD+IFR1+MS
4500.000	21.340	254.200	4411.516	17.457	-0.000	16.297	0.000	6.743	0.000	0.000	17.802	16.257	-6.701	MWD+IFR1+MS
4600.000	21.340	254.200	4504.658	17.817	-0.000	16.676	0.000	6.932	0.000	0.000	18.139	16.633	-6.330	MWD+IFR1+MS
4700.000	21.340	254.200	4597.800	18.182	-0.000	17.055	0.000	7.124	0.000	0.000	18.481	17.010	-5.947	MWD+IFR1+MS
4800.000	21.340	254.200	4690.942	18.550	-0.000	17.437	0.000	7.320	0.000	0.000	18.825	17.390	-5.575	MWD+IFR1+MS
4900.000	21.340	254.200	4784.084	18.921	-0.000	17.822	0.000	7.519	0.000	0.000	19.174	17.773	-5.203	MWD+IFR1+MS
5000.000	21.340	254.200	4877.225	19.295	-0.000	18.207	0.000	7.720	0.000	0.000	19.523	18.156	-4.833	MWD+IFR1+MS
5100.000	21.340	254.200	4970.367	19.671	-0.000	18.592	0.000	7.925	0.000	0.000	19.875	18.539	-4.461	MWD+IFR1+MS
5200.000	21.340	254.200	5063.509	20.050	-0.000	18.980	0.000	8.133	0.000	0.000	20.230	18.925	-4.091	MWD+IFR1+MS
5300.000	21.340	254.200	5156.651	20.431	-0.000	19.370	0.000	8.343	0.000	0.000	20.587	19.313	-3.729	MWD+IFR1+MS
5400.000	21.340	254.200	5249.793	20.815	-0.000	19.760	0.000	8.557	0.000	0.000	20.947	19.701	-3.361	MWD+IFR1+MS
5500.000	21.340	254.200	5342.935	21.203	-0.000	20.151	0.000	8.773	0.000	0.000	21.311	20.089	-2.988	MWD+IFR1+MS
5600.000	21.340	254.200	5436.077	21.592	-0.000	20.543	0.000	8.991	0.000	0.000	21.675	20.479	-2.623	MWD+IFR1+MS
5700.000	21.340	254.200	5529.219	21.981	-0.000	20.937	0.000	9.212	0.000	0.000	22.040	20.872	-2.265	MWD+IFR1+MS
5800.000	21.340	254.200	5622.361	22.374	-0.000	21.331	0.000	9.436	0.000	0.000	22.409	21.264	-1.904	MWD+IFR1+MS
5900.000	21.340	254.200	5715.503	22.768	-0.000	21.725	0.000	9.662	0.000	0.000	22.778	21.656	-1.546	MWD+IFR1+MS
6000.000	21.340	254.200	5808.644	23.164	-0.000	22.121	0.000	9.891	0.000	0.000	23.150	22.049	-1.190	MWD+IFR1+MS
6100.000	21.340	254.200	5901.786	23.562	-0.000	22.519	0.000	10.119	0.000	0.000	23.525	22.445	-0.837	MWD+IFR1+MS
6200.000	21.340	254.200	5994.928	23.962	-0.000	22.916	0.000	10.354	0.000	0.000	23.900	22.841	-0.488	MWD+IFR1+MS
6300.000	21.340	254.200	6088.070	24.361	-0.000	23.313	0.000	10.588	0.000	0.000	24.276	23.236	-0.142	MWD+IFR1+MS
6400.000	21.340	254.200	6181.212	24.763	-0.000	23.712	0.000	10.826	0.000	0.000	24.654	23.633	0.200	MWD+IFR1+MS
6500.000	21.340	254.200	6274.354	25.166	-0.000	24.112	0.000	11.068	0.000	0.000	25.032	24.031	0.539	MWD+IFR1+MS
6600.000	21.340	254.200	6367.496	25.571	-0.000	24.512	0.000	11.309	0.000	0.000	25.413	24.429	0.873	MWD+IFR1+MS
6696.400	21.340	254.200	6457.362	25.963	-0.000	24.897	0.000	11.546	0.000	0.000	25.782	24.813	1.166	MWD+IFR1+MS
6700.000	21.270	254.200	6460.638	25.979	-0.000	24.911	0.000	11.554	0.000	0.000	25.794	24.827	1.168	MWD+IFR1+MS

6800.000	19.270	254.200	6554.438	26.508	-0.000	25.304	0.000	11.803	0.000	0.000	26.192	25.221	1.102	MWD+IFR1+MS
6900.000	17.270	254.200	6649.391	27.074	-0.000	25.699	0.000	12.066	0.000	0.000	26.659	25.610	0.900	MWD+IFR1+MS
7000.000	15.270	254.200	6745.380	27.603	-0.000	26.087	0.000	12.321	0.000	0.000	27.124	25.994	0.688	MWD+IFR1+MS
7100.000	13.270	254.200	6842.289	28.090	-0.000	26.469	0.000	12.566	0.000	0.000	27.583	26.372	0.484	MWD+IFR1+MS
7200.000	11.270	254.200	6939.998	28.539	-0.000	26.845	0.000	12.802	0.000	0.000	28.036	26.743	0.296	MWD+IFR1+MS
7300.000	9.272	254.200	7038.390	28.947	-0.000	27.215	0.000	13.031	0.000	0.000	28.482	27.109	0.132	MWD+IFR1+MS
7400.000	7.272	254.200	7137.345	29.314	-0.000	27.578	0.000	13.251	0.000	0.000	28.919	27.468	-0.005	MWD+IFR1+MS
7500.000	5.272	254.200	7236.741	29.641	-0.000	27.934	0.000	13.468	0.000	0.000	29.348	27.819	-0.111	MWD+IFR1+MS
7600.000	3.272	254.200	7336.458	29.926	-0.000	28.281	0.000	13.682	0.000	0.000	29.766	28.162	-0.185	MWD+IFR1+MS
7700.000	1.272	254.200	7436.375	30.171	-0.000	28.623	0.000	13.892	0.000	0.000	30.173	28.499	-0.226	MWD+IFR1+MS
7763.600	0.000	0.000	7500.000	28.709	0.000	30.371	0.000	14.025	0.000	0.000	30.371	28.709	-0.016	MWD+IFR1+MS
7800.000	0.000	0.000	7536.369	28.827	0.000	30.478	0.000	14.103	0.000	0.000	30.478	28.827	-0.005	MWD+IFR1+MS
7900.000	0.000	0.000	7636.369	29.150	0.000	30.777	0.000	14.311	0.000	0.000	30.777	29.150	-0.020	MWD+IFR1+MS
8000.000	0.000	0.000	7736.369	29.475	0.000	31.079	0.000	14.526	0.000	0.000	31.079	29.475	-0.149	MWD+IFR1+MS
8100.000	0.000	0.000	7836.369	29.803	0.000	31.383	0.000	14.744	0.000	0.000	31.383	29.803	-0.279	MWD+IFR1+MS
8200.000	0.000	0.000	7936.369	30.130	0.000	31.686	0.000	14.967	0.000	0.000	31.686	30.130	-0.411	MWD+IFR1+MS
8300.000	0.000	0.000	8036.369	30.460	0.000	31.984	0.000	15.192	0.000	0.000	31.985	30.460	-0.547	MWD+IFR1+MS
8400.000	0.000	0.000	8136.369	30.788	0.000	32.296	0.000	15.418	0.000	0.000	32.296	30.788	-0.678	MWD+IFR1+MS
8500.000	0.000	0.000	8236.369	31.118	0.000	32.604	0.000	15.649	0.000	0.000	32.604	31.117	-0.814	MWD+IFR1+MS
8600.000	0.000	0.000	8336.369	31.448	0.000	32.909	0.000	15.887	0.000	0.000	32.909	31.448	-0.953	MWD+IFR1+MS
8700.000	0.000	0.000	8436.369	31.765	0.000	33.226	0.000	16.125	0.000	0.000	33.227	31.764	-1.074	MWD+IFR1+MS
8800.000	0.000	0.000	8536.369	32.109	0.000	33.541	0.000	16.368	0.000	0.000	33.542	32.109	-1.219	MWD+IFR1+MS
8900.000	0.000	0.000	8636.369	32.435	0.000	33.853	0.000	16.613	0.000	0.000	33.853	32.434	-1.352	MWD+IFR1+MS
9000.000	0.000	0.000	8736.369	32.772	0.000	34.161	0.000	16.861	0.000	0.000	34.162	32.771	-1.501	MWD+IFR1+MS
9100.000	0.000	0.000	8836.369	33.106	0.000	34.482	0.000	17.114	0.000	0.000	34.483	33.105	-1.635	MWD+IFR1+MS
9200.000	0.000	0.000	8936.369	33.437	0.000	34.785	0.000	17.370	0.000	0.000	34.786	33.435	-1.788	MWD+IFR1+MS
9300.000	0.000	0.000	9036.369	33.779	0.000	35.100	0.000	17.630	0.000	0.000	35.101	33.777	-1.944	MWD+IFR1+MS
9340.600	0.000	0.000	9077.000	33.912	0.000	35.228	0.000	17.734	0.000	0.000	35.229	33.910	-1.927	MWD+IFR1+MS
9400.000	5.937	180.000	9136.265	34.145	0.000	35.412	-0.000	17.894	0.000	0.000	35.413	34.160	-2.068	MWD+IFR1+MS
9500.000	15.930	180.000	9234.324	35.085	0.000	35.721	-0.000	18.265	0.000	0.000	35.803	35.569	-36.260	MWD+IFR1+MS
9600.000	25.930	180.000	9327.603	35.963	0.000	36.028	-0.000	18.989	0.000	0.000	37.590	35.999	97.585	MWD+IFR1+MS
9700.000	35.930	180.000	9413.267	36.116	0.000	36.332	-0.000	20.152	0.000	0.000	39.145	36.300	95.985	MWD+IFR1+MS
9800.000	45.930	180.000	9488.714	35.678	0.000	36.606	-0.000	21.772	0.000	0.000	40.346	36.568	95.597	MWD+IFR1+MS
9900.000	55.930	180.000	9551.652	34.799	0.000	36.865	-0.000	23.784	0.000	0.000	41.172	36.822	95.531	MWD+IFR1+MS
10000.000	65.930	180.000	9600.167	33.710	0.000	37.094	-0.000	26.065	0.000	0.000	41.682	37.049	95.499	MWD+IFR1+MS
10100.000	75.930	180.000	9632.786	32.671	0.000	37.283	-0.000	28.480	0.000	0.000	41.931	37.239	95.355	MWD+IFR1+MS
10200.000	85.930	180.000	9648.518	31.968	0.000	37.443	-0.000	30.890	0.000	0.000	42.009	37.407	94.966	MWD+IFR1+MS
10240.000	90.000	180.000	9649.958	31.145	0.000	37.497	-0.000	31.145	0.000	0.000	42.017	37.464	94.683	MWD+IFR1+MS
10300.000	90.000	180.000	9649.958	31.297	0.000	37.563	-0.000	31.297	0.000	0.000	42.011	37.538	94.229	MWD+IFR1+MS
10400.000	90.000	180.000	9649.958	31.510	0.000	37.696	-0.000	31.510	0.000	0.000	42.015	37.680	93.435	MWD+IFR1+MS
10500.000	90.000	180.000	9649.958	31.733	0.000	37.855	-0.000	31.733	0.000	0.000	42.020	37.846	92.609	MWD+IFR1+MS
10600.000	90.000	180.000	9649.958	31.984	0.000	38.013	-0.000	31.984	0.000	0.000	42.027	38.009	91.722	MWD+IFR1+MS
10700.000	90.000	180.000	9649.958	32.265	0.000	38.184	-0.000	32.265	0.000	0.000	42.036	38.183	90.770	MWD+IFR1+MS
10800.000	90.000	180.000	9649.958	32.542	0.000	38.354	-0.000	32.542	0.000	0.000	42.048	38.354	89.739	MWD+IFR1+MS
10900.000	90.000	180.000	9649.958	32.848	0.000	38.549	-0.000	32.848	0.000	0.000	42.061	38.547	88.613	MWD+IFR1+MS
11000.000	90.000	180.000	9649.958	33.166	0.000	38.756	-0.000	33.166	0.000	0.000	42.090	38.748	87.375	MWD+IFR1+MS
11100.000	90.000	180.000	9649.958	33.496	0.000	38.962	-0.000	33.496	0.000	0.000	42.110	38.945	85.997	MWD+IFR1+MS
11200.000	90.000	180.000	9649.958	33.838	0.000	39.192	-0.000	33.838	0.000	0.000	42.134	39.163	84.422	MWD+IFR1+MS
11300.000	90.000	180.000	9649.958	34.205	0.000	39.421	-0.000	34.205	0.000	0.000	42.175	39.374	82.676	MWD+IFR1+MS
11400.000	90.000	180.000	9649.958	34.583	0.000	39.661	-0.000	34.583	0.000	0.000	42.210	39.590	80.644	MWD+IFR1+MS
11500.000	90.000	180.000	9649.958	34.971	0.000	39.912	-0.000	34.971	0.000	0.000	42.264	39.809	78.336	MWD+IFR1+MS
11600.000	90.000	180.000	9649.958	35.369	0.000	40.175	-0.000	35.369	0.000	0.000	42.327	40.030	75.664	MWD+IFR1+MS
11700.000	90.000	180.000	9649.958	35.791	0.000	40.447	-0.000	35.791	0.000	0.000	42.403	40.249	72.557	MWD+IFR1+MS

11800.000	90.000	180.000	9649.958	36.208	0.000	40.731	-0.000	36.208	0.000	0.000	42.483	40.462	68.854	MWD+IFR1+MS
11900.000	90.000	180.000	9649.958	36.647	0.000	41.012	-0.000	36.647	0.000	0.000	42.591	40.657	64.878	MWD+IFR1+MS
12000.000	90.000	180.000	9649.958	37.108	0.000	41.316	-0.000	37.108	0.000	0.000	42.725	40.849	60.340	MWD+IFR1+MS
12100.000	90.000	180.000	9649.958	37.563	0.000	41.617	-0.000	37.563	0.000	0.000	42.881	41.015	55.674	MWD+IFR1+MS
12200.000	90.000	180.000	9649.958	38.039	0.000	41.929	-0.000	38.039	0.000	0.000	43.066	41.163	50.940	MWD+IFR1+MS
12300.000	90.000	180.000	9649.958	38.523	0.000	42.261	-0.000	38.523	0.000	0.000	43.290	41.303	46.364	MWD+IFR1+MS
12400.000	90.000	180.000	9649.958	39.013	0.000	42.591	-0.000	39.013	0.000	0.000	43.530	41.414	42.127	MWD+IFR1+MS
12500.000	90.000	180.000	9649.958	39.509	0.000	42.930	-0.000	39.509	0.000	0.000	43.796	41.508	38.334	MWD+IFR1+MS
12600.000	90.000	180.000	9649.958	40.025	0.000	43.267	-0.000	40.025	0.000	0.000	44.079	41.593	35.264	MWD+IFR1+MS
12700.000	90.000	180.000	9649.958	40.546	0.000	43.623	-0.000	40.546	0.000	0.000	44.386	41.664	32.363	MWD+IFR1+MS
12800.000	90.000	180.000	9649.958	41.073	0.000	43.989	-0.000	41.073	0.000	0.000	44.710	41.726	29.869	MWD+IFR1+MS
12900.000	90.000	180.000	9649.958	41.605	0.000	44.351	-0.000	41.605	0.000	0.000	45.043	41.787	27.891	MWD+IFR1+MS
13000.000	90.000	180.000	9649.958	42.154	0.000	44.733	-0.000	42.154	0.000	0.000	45.398	41.846	26.092	MWD+IFR1+MS
13100.000	90.000	180.000	9649.958	42.708	0.000	45.111	-0.000	42.708	0.000	0.000	45.753	41.889	24.523	MWD+IFR1+MS
13200.000	90.000	180.000	9649.958	43.267	0.000	45.497	-0.000	43.267	0.000	0.000	46.121	41.938	23.204	MWD+IFR1+MS
13300.000	90.000	180.000	9649.958	43.829	0.000	45.891	-0.000	43.829	0.000	0.000	46.500	41.986	22.033	MWD+IFR1+MS
13400.000	90.000	180.000	9649.958	44.407	0.000	46.293	-0.000	44.407	0.000	0.000	46.887	42.031	20.989	MWD+IFR1+MS
13500.000	90.000	180.000	9649.958	44.978	0.000	46.701	-0.000	44.978	0.000	0.000	47.284	42.074	20.060	MWD+IFR1+MS
13600.000	90.000	180.000	9649.958	45.563	0.000	47.117	-0.000	45.563	0.000	0.000	47.688	42.117	19.214	MWD+IFR1+MS
13700.000	90.000	180.000	9649.958	46.152	0.000	47.529	-0.000	46.152	0.000	0.000	48.092	42.157	18.478	MWD+IFR1+MS
13800.000	90.000	180.000	9649.958	46.755	0.000	47.958	-0.000	46.755	0.000	0.000	48.512	42.197	17.775	MWD+IFR1+MS
13900.000	90.000	180.000	9649.958	47.360	0.000	48.384	-0.000	47.360	0.000	0.000	48.930	42.247	17.184	MWD+IFR1+MS
14000.000	90.000	180.000	9649.958	47.958	0.000	48.826	-0.000	47.958	0.000	0.000	49.365	42.286	16.588	MWD+IFR1+MS
14100.000	90.000	180.000	9649.958	48.580	0.000	49.265	-0.000	48.580	0.000	0.000	49.796	42.324	16.060	MWD+IFR1+MS
14200.000	90.000	180.000	9649.958	49.193	0.000	49.709	-0.000	49.193	0.000	0.000	50.235	42.372	15.590	MWD+IFR1+MS
14300.000	90.000	180.000	9649.958	49.820	0.000	50.160	-0.000	49.820	0.000	0.000	50.680	42.409	15.131	MWD+IFR1+MS
14400.000	90.000	180.000	9649.958	50.438	0.000	50.616	-0.000	50.438	0.000	0.000	51.131	42.457	14.719	MWD+IFR1+MS
14500.000	90.000	180.000	9649.958	51.069	0.000	51.069	-0.000	51.069	0.000	0.000	51.579	42.504	14.348	MWD+IFR1+MS
14600.000	90.000	180.000	9649.958	51.711	0.000	51.536	-0.000	51.711	0.000	0.000	52.042	42.540	13.967	MWD+IFR1+MS
14700.000	90.000	180.000	9649.958	52.345	0.000	52.000	-0.000	52.345	0.000	0.000	52.501	42.586	13.636	MWD+IFR1+MS
14800.000	90.000	180.000	9649.958	52.991	0.000	52.479	-0.000	52.991	0.000	0.000	52.975	42.633	13.308	MWD+IFR1+MS
14900.000	90.000	180.000	9649.958	53.638	0.000	52.953	-0.000	53.638	0.000	0.000	53.446	42.680	13.010	MWD+IFR1+MS
15000.000	90.000	180.000	9649.958	54.286	0.000	53.432	-0.000	54.286	0.000	0.000	53.921	42.726	12.726	MWD+IFR1+MS
15100.000	90.000	180.000	9649.958	54.945	0.000	53.917	-0.000	54.945	0.000	0.000	54.402	42.772	12.455	MWD+IFR1+MS
15200.000	90.000	180.000	9649.958	55.597	0.000	54.406	-0.000	55.597	0.000	0.000	54.887	42.818	12.196	MWD+IFR1+MS
15300.000	90.000	180.000	9649.958	56.258	0.000	54.900	-0.000	56.258	0.000	0.000	55.378	42.875	11.962	MWD+IFR1+MS
15400.000	90.000	180.000	9649.958	56.921	0.000	55.399	-0.000	56.921	0.000	0.000	55.873	42.920	11.724	MWD+IFR1+MS
15500.000	90.000	180.000	9649.958	57.593	0.000	55.902	-0.000	57.593	0.000	0.000	56.373	42.966	11.496	MWD+IFR1+MS
15600.000	90.000	180.000	9649.958	58.258	0.000	56.400	-0.000	58.258	0.000	0.000	56.869	43.023	11.293	MWD+IFR1+MS
15700.000	90.000	180.000	9649.958	58.932	0.000	56.912	-0.000	58.932	0.000	0.000	57.377	43.069	11.082	MWD+IFR1+MS
15800.000	90.000	180.000	9649.958	59.607	0.000	57.420	-0.000	59.607	0.000	0.000	57.881	43.125	10.894	MWD+IFR1+MS
15900.000	90.000	180.000	9649.958	60.283	0.000	57.931	-0.000	60.283	0.000	0.000	58.389	43.170	10.705	MWD+IFR1+MS
16000.000	90.000	180.000	9649.958	60.967	0.000	58.447	-0.000	60.967	0.000	0.000	58.902	43.227	10.529	MWD+IFR1+MS
16100.000	90.000	180.000	9649.958	61.652	0.000	58.966	-0.000	61.652	0.000	0.000	59.419	43.283	10.358	MWD+IFR1+MS
16200.000	90.000	180.000	9649.958	62.338	0.000	59.489	-0.000	62.338	0.000	0.000	59.939	43.339	10.193	MWD+IFR1+MS
16300.000	90.000	180.000	9649.958	63.024	0.000	60.017	-0.000	63.024	0.000	0.000	60.463	43.396	10.033	MWD+IFR1+MS
16400.000	90.000	180.000	9649.958	63.710	0.000	60.539	-0.000	63.710	0.000	0.000	60.983	43.452	9.884	MWD+IFR1+MS
16500.000	90.000	180.000	9649.958	64.405	0.000	61.074	-0.000	64.405	0.000	0.000	61.515	43.508	9.733	MWD+IFR1+MS
16600.000	90.000	180.000	9649.958	65.100	0.000	61.604	-0.000	65.100	0.000	0.000	62.042	43.564	9.592	MWD+IFR1+MS
16700.000	90.000	180.000	9649.958	65.795	0.000	62.145	-0.000	65.795	0.000	0.000	62.580	43.620	9.450	MWD+IFR1+MS
16800.000	90.000	180.000	9649.958	66.491	0.000	62.682	-0.000	66.491	0.000	0.000	63.114	43.676	9.316	MWD+IFR1+MS
16900.000	90.000	180.000	9649.958	67.194	0.000	63.222	-0.000	67.194	0.000	0.000	63.652	43.732	9.186	MWD+IFR1+MS
17000.000	90.000	180.000	9649.958	67.897	0.000	63.765	-0.000	67.897	0.000	0.000	64.193	43.799	9.066	MWD+IFR1+MS

17100.000	90.000	180.000	9649.958	68.600	0.000	64.312	-0.000	68.600	0.000	0.000	64.736	43.854	8.943	MWD+IFR1+MS
17200.000	90.000	180.000	9649.958	69.304	0.000	64.854	-0.000	69.304	0.000	0.000	65.276	43.921	8.830	MWD+IFR1+MS
17300.000	90.000	180.000	9649.958	70.014	0.000	65.406	-0.000	70.014	0.000	0.000	65.826	43.977	8.712	MWD+IFR1+MS
17400.000	90.000	180.000	9649.958	70.725	0.000	65.962	-0.000	70.725	0.000	0.000	66.379	44.044	8.601	MWD+IFR1+MS
17500.000	90.000	180.000	9649.958	71.435	0.000	66.513	-0.000	71.435	0.000	0.000	66.928	44.110	8.496	MWD+IFR1+MS
17567.000	90.000	180.000	9650.000	71.917	0.000	66.888	-0.000	71.917	0.000	0.000	67.301	44.154	8.425	MWD+IFR1+MS

Plan Targets	PLU 26 Brushy Draw 154H				
	Measured Depth	**Grid Northing**	**Grid Easting**	**TVD MSL**	**Target Shape**
Target Name	**(ft)**	**(ft)**	**(ft)**	**(ft)**	
PLU 26 BD FTP 5	10240.39	400338.20	647037.30	6300.00	CIRCLE
PLU 26 BD LTP 5	17567.88	393011.51	647042.08	6300.00	CIRCLE

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

Description of Operations:

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
    a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
    b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
    a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
    a. The larger rig will move back onto the location within 180 days from the point at which the wells are secured and the spudder rig is moved off location.
    b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.

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

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

Background

Onshore Oil and Gas Order (OOGO) No. 2, 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. OOGO No. 2, Section I.D.2 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 OOGO No. 2, Section IV., XTO Energy submits this request for the variance.

Supporting Documentation

OOGO No. 2 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 OOGO No. 2 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. OOGO No. 2 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

62 API STANDARD 53

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

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

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

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

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

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

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

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

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

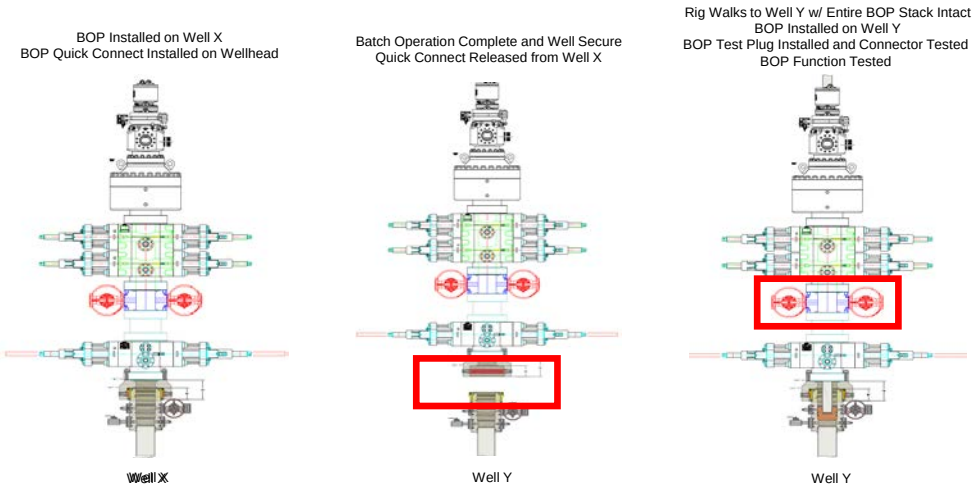
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of OOGO No. 2 (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 OOGO No.2.

Procedures

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

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

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



Summary

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

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

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

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

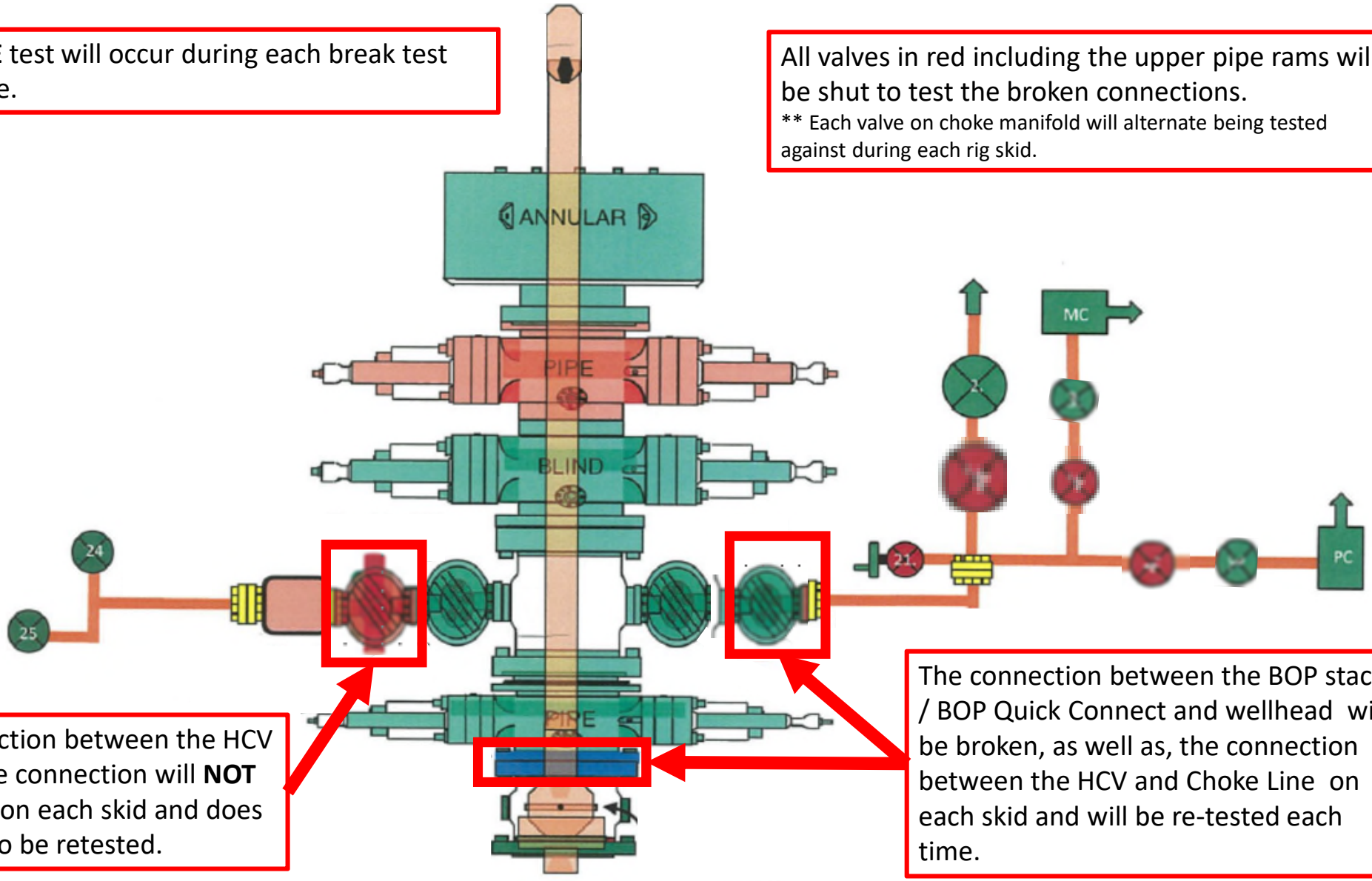
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

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

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

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

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



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

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

XTO Permian Operating, LLC Offline Cementing Variance Request

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

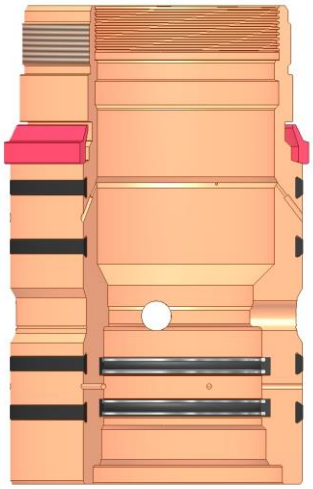
1. Cement Program

No changes to the cement program will take place for offline cementing.

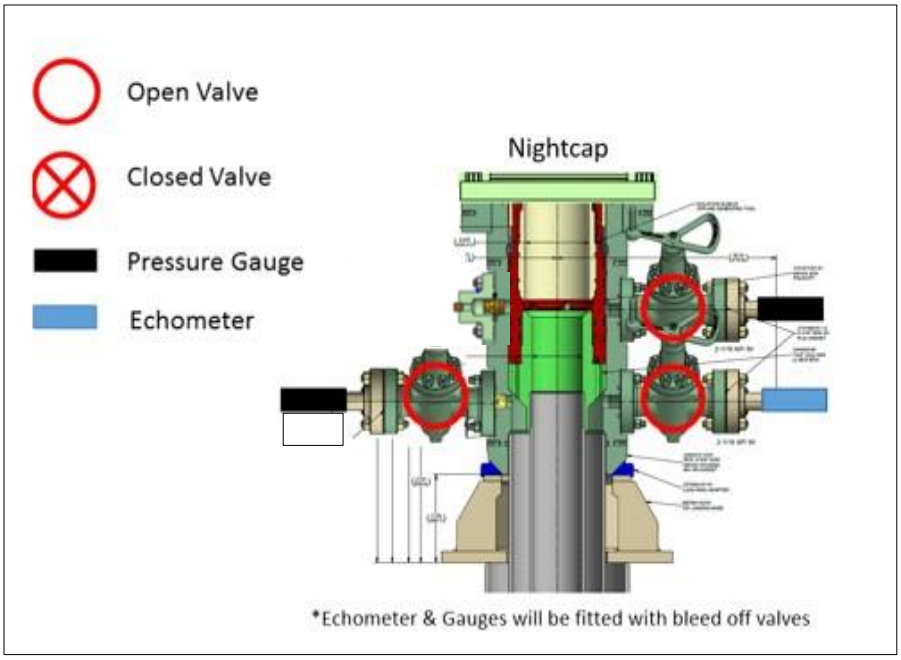
2. Offline Cementing Procedure

The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
    a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



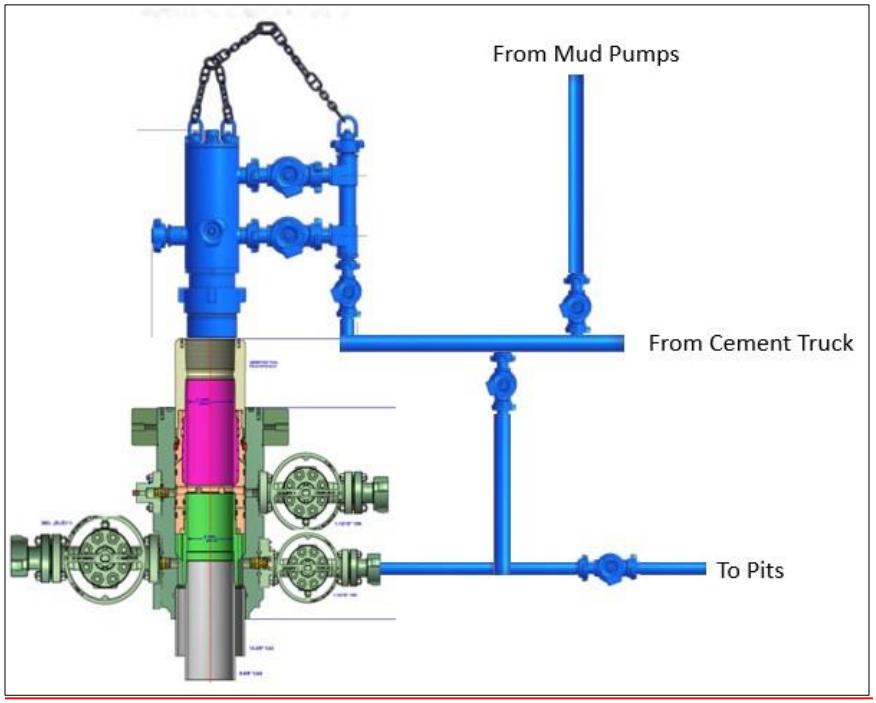
Annular packoff with both external and internal seals



Wellhead diagram during skidding operations

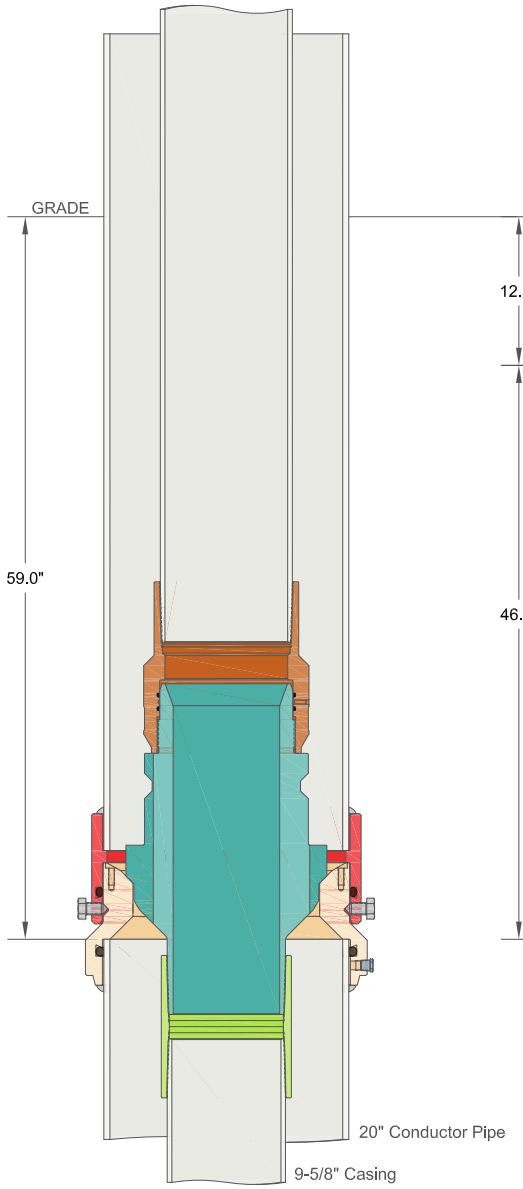
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
    a. Well Control Plan
        i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
        ii. Rig pumps or a 3rd party pump will be tied into the upper casing valve to pump down the casing ID
        iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
        iv. Once influx is circulated out of the hole, kill weight mud will be circulated
        v. Well will be confirmed static
        vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment

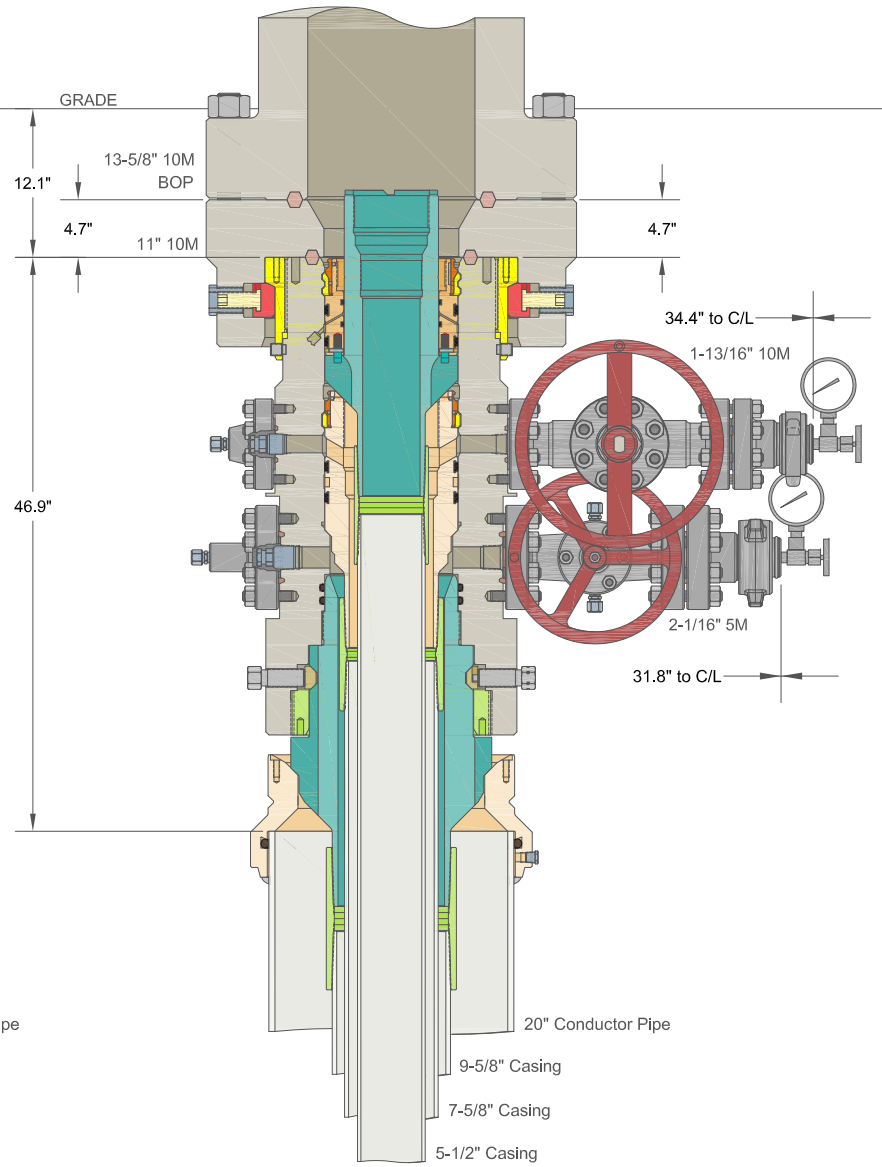
XTO Permian Operating, LLC Offline Cementing Variance Request

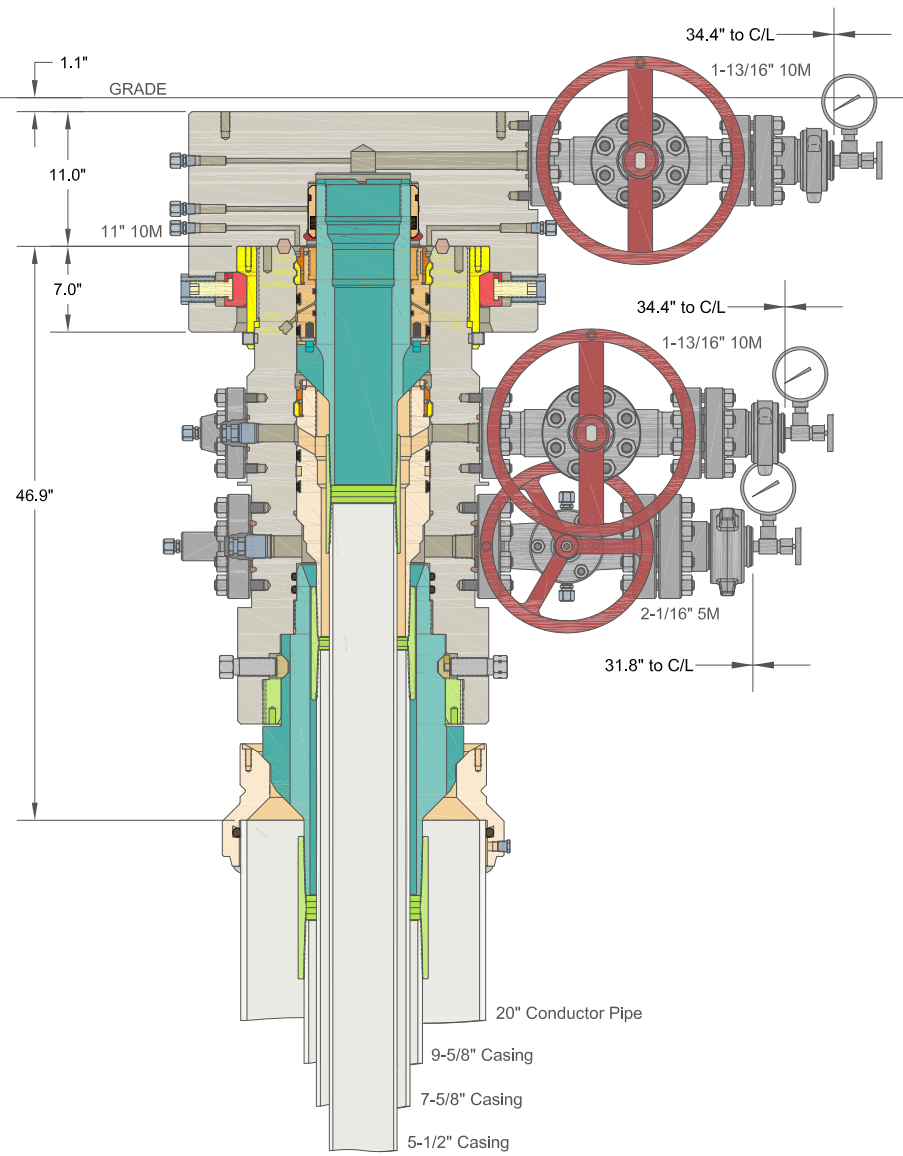


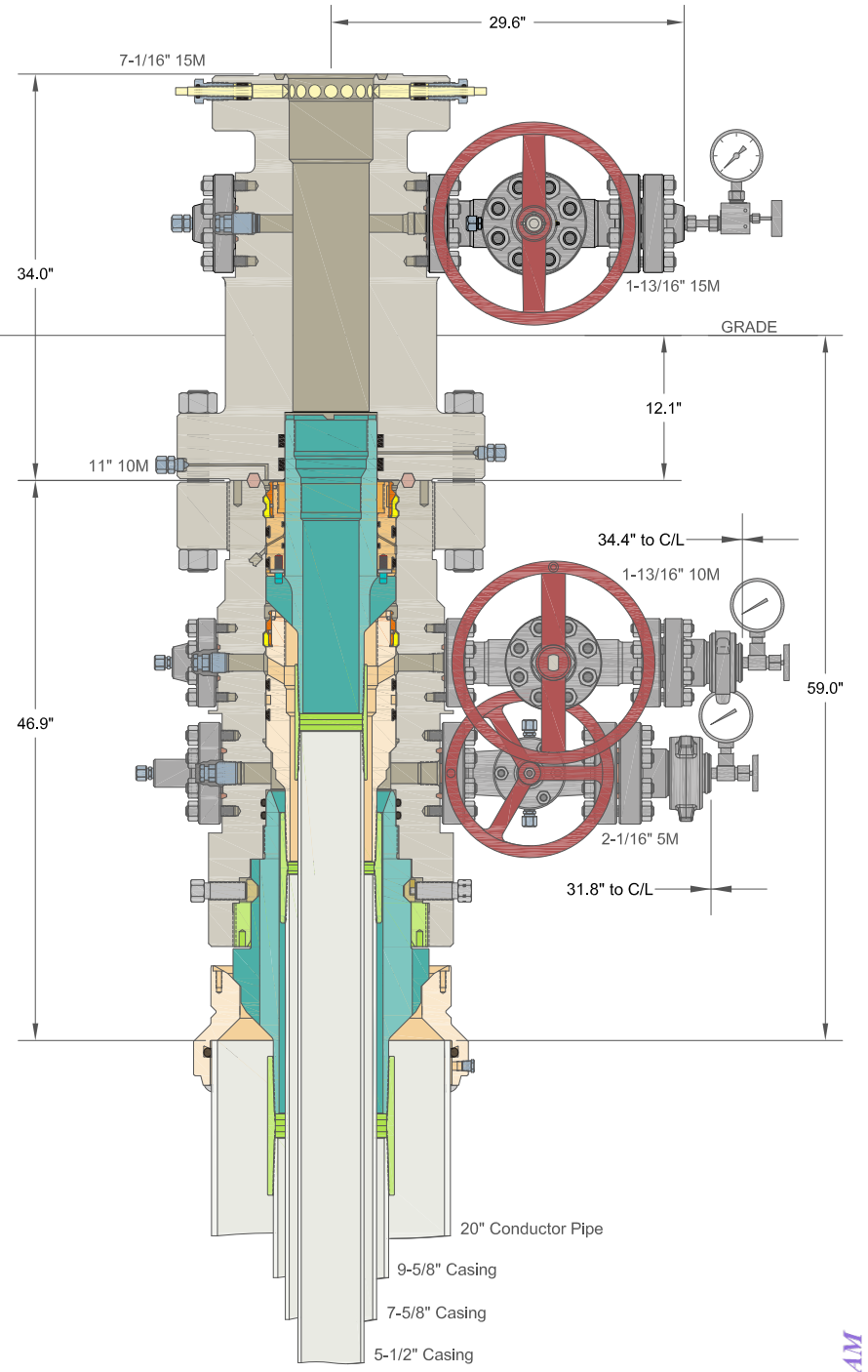
Wellhead diagram during offline cementing operations

10. Circulate bottoms up with cement truck
    a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
    b. Max anticipated time before circulating with cement truck is 6 hrs
11. Perform cement job taking returns from the annulus wellhead valve
12. Confirm well is static and floats are holding after cement job
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.









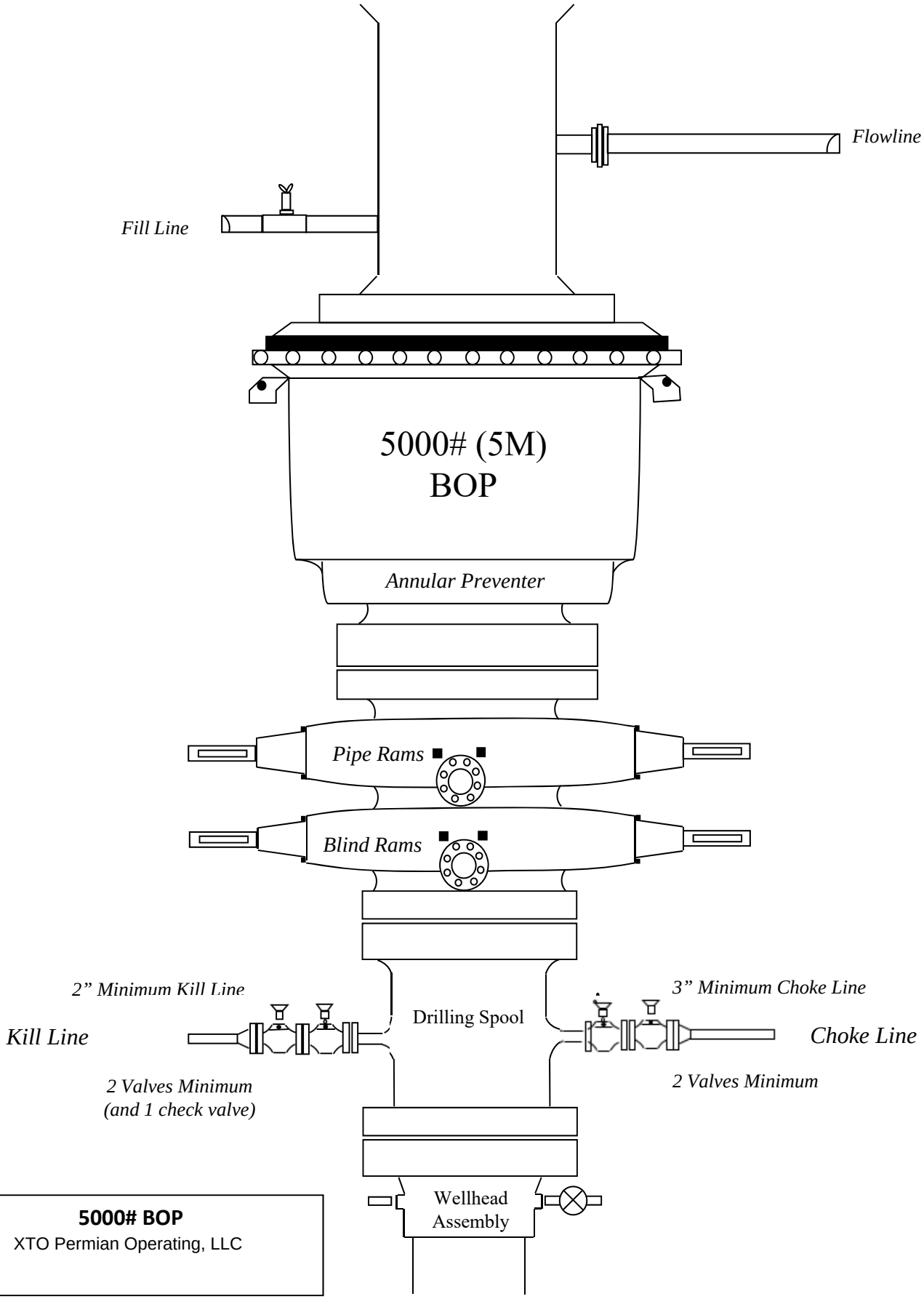
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

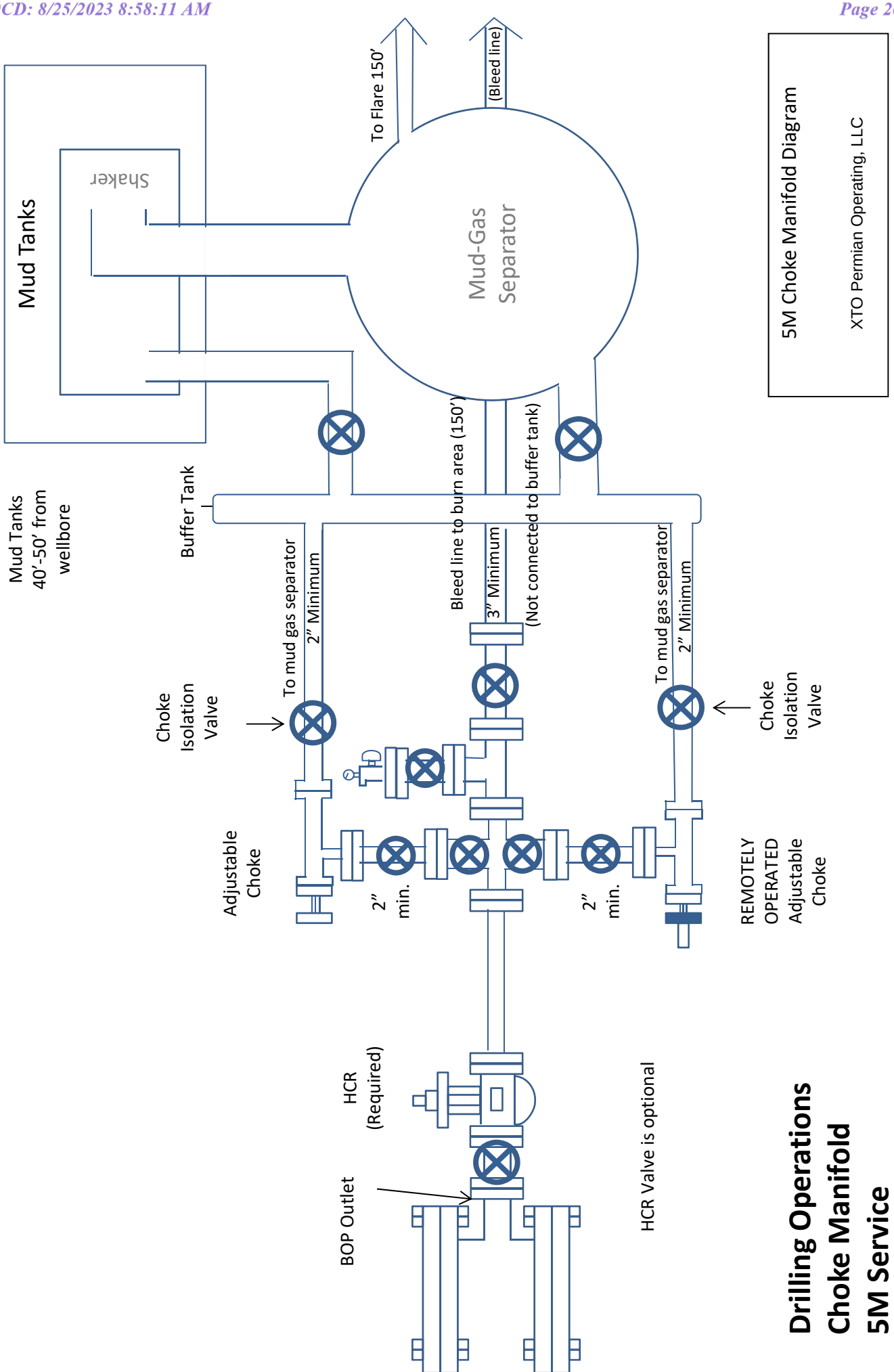
20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead
With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head
And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers

XTO ENERGY INC
ICARUS PAD

DRAWN	DLE	18JAN21
APPRV		
DRAWING NO.	HBE0000479	



5000# BOP
XTO Permian Operating, LLC


Mud Tanks
Shaker
To Flare 150'
(Bleed line)
Mud-Gas Separator
5M Choke Manifold Diagram
XTO Permian Operating, LLC
Mud Tanks 40'-50' from wellbore
Buffer Tank
Bleed line to burn area (150')
(Not connected to buffer tank)
To mud gas separator
2" Minimum
3" Minimum
Choke Isolation Valve
Adjustable Choke
2" min.
REMOTELY OPERATED Adjustable Choke
HCR (Required)
BOP Outlet
HCR Valve is optional
Drilling Operations
Choke Manifold
5M Service

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 257687

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 257687
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	None	5/30/2025