Form 3160-5 (June 2015)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS** Do not use this form for proposals to drill or to re-enter an

5. Lease Serial No. NMNM25533 6 If Indian, Allottee or Tribe Name

abandoned well. Use form 3160-3 (APD) for such proposals.					o. If fildran, Anottee of Tibe Name			
SUBMIT IN TRIPLICATE - Other instructions on page 2					7. If Unit or CA/Agreement, Name and/or No. 891000303X			
Type of Well     Oil Well					8. Well Name and No. POKER LAKE UNIT 18 TWR 124H			
Name of Operator     XTO PERMIAN OPERATING	9. API Well No. 30-015-46551-00-X1							
3a. Address 6401 HOLIDAY HILL ROAD E MIDLAND, TX 79707	BLDG 5	3b. Phone No. Ph: 432-620	(include area code) 0-4374		10. Field and Pool or Ex PURPLE SAGE-\	plorate WOLF	ory Area FCAMP (GAS)	
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description)				11. County or Parish, State			
Sec 19 T24S R31E NENW 61 32.208382 N Lat, 103.817047		EDDY COUNTY, NM						
12. CHECK THE A	PPROPRIATE BOX(ES) T	TO INDICAT	TE NATURE O	F NOTICE,	REPORT, OR OTHI	ER D	ATA	
TYPE OF SUBMISSION			TYPE OF	ACTION				
■ Notice of Intent	☐ Acidize	☐ Deep	en	☐ Product	ion (Start/Resume)	$\square$ W	ater Shut-Off	
_	☐ Alter Casing	☐ Hydr	aulic Fracturing	□ Reclam	ation	■ Well Integrity		
☐ Subsequent Report	□ Casing Repair	☐ New	Construction	☐ Recomp	olete		<b>₫</b> Other	
☐ Final Abandonment Notice	☐ Change Plans	☐ Plug	and Abandon	□ Tempor	arily Abandon	PD	Change to Original A	
	☐ Convert to Injection	Plug	Back	☐ Water I	r Disposal			
If the proposal is to deepen directions Attach the Bond under which the wor following completion of the involved testing has been completed. Final At determined that the site is ready for fr XTO Permian Operating, LLC Change the casing/cement de XTO requests to not utilize ce XTO requests a variance to be each casing string and ensure floats holding, no pressure on recommendations, XTO will co Once surface and intermediat hole on each of the wells.	rk will be performed or provide the laperations. If the operation rest candonment Notices must be filed in per the attached drilling intralizers in the curve and the able to batch drill this well that the well is cemented the csg annulus, and the intralizer the BLM to skid the estrings are all completed.	he Bond No. on alts in a multiple donly after all reake the following program.  Ilateral.  Il if necessary properly and installation of rig to drill the	file with BLM/BIA completion or recoequirements, including changes to the well is static a 10K TA cap a remaining wells	. Required sulmpletion in a ring reclamation the original TO will set by With sper GE on the pad	bsequent reports must be finew interval, a Form 3160- n, have been completed an	led wit 4 must	hin 30 days be filed once	
, , , , ,	Electronic Submission #49 For XTO PERMIA nitted to AFMSS for process	N OPERATIN	G LLC, sent to t	he Carlsbad	-			
					ORDINATOR			
Signature (Electronic S	Submission)		Date 01/08/20	20				
Signature (Electronic S		D FEDERA			OF			
	THIS SPACE FO	K FEDEKA	LOKSIAIE	OFFICE U	<b>○</b>	<u> </u>		
_Approved_By_ALLISON_MORENC	<u> </u>		TitlePETROLE	<u>UM ENGINI</u>	EER		Date 02/14/2020	
Conditions of approval, if any, are attache certify that the applicant holds legal or equivalent would entitle the applicant to conduct the conductive transfer of the conductive trans	uitable title to those rights in the sact operations thereon.	subject lease	Office Carlsbac					
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent				willfully to ma	ake to any department or a	gency o	of the United	

# Additional data for EC transaction #498352 that would not fit on the form

# 32. Additional remarks, continued

Poker Lake Unit 18 TWR 154H 30-015-46471 Poker Lake Unit 18 TWR 124H 30-015-46551 Poker Lake Unit 18 TWR 104H 30-015-46550

#### Revisions to Operator-Submitted EC Data for Sundry Notice #498352

**Operator Submitted BLM Revised (AFMSS)** 

APDCH **APDCH** Sundry Type: NOI NOI

Lease: NMNM025533 NMNM25533

Agreement: NMNM71016X 891000303X (NMNM71016X)

XTO PERMIAN OPERATING LLC 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707 Ph: 432.683 2277 Operator: XTO PERMIAN OPERATING, LLC

6401 HOLIDAY HILL RD BLDG 5 MIDLAND, TX 79707 Ph: 432-620-4374

**KELLY KARDOS** Admin Contact:

KELLY KARDOS REGULATORY COORDINATOR REGULATORY COORDINATOR E-Mail: kelly\_kardos@xtoenergy.com E-Mail: kelly\_kardos@xtoenergy.com

Ph: 432-620-4374 Ph: 432-620-4374

Tech Contact:

KELLY KARDOS REGULATORY COORDINATOR KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly\_kardos@xtoenergy.com E-Mail: kelly\_kardos@xtoenergy.com

Ph: 432-620-4374 Ph: 432-620-4374

Location:

NM EDDY State: NM County: **EDDY** 

Field/Pool: PURPLE SAGE WOLFCAMP GAS PURPLE SAGE-WOLFCAMP (GAS)

POKER LAKE UNIT 18 TWR 124H POKER LAKE UNIT 18 TWR 124H Well/Facility:

Sec 19 T24S R31E NENW 613FNL 2670FWL Sec 19 T24S R31E Mer NMP NENW 613FNL 2670FWL

32.208382 N Lat, 103.817047 W Lon

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

XTO Energy Inc.
PLU 18 Twin Wells Ranch 124H
Projected TD: 21932' MD / 11810' TVD
SHL: 613' FNL & 2670' FWL , Section 19, T24S, R31E
BHL: 200' FSL & 2010' FWL , Section 30, T24S, R31E

Eddy County, NM

#### 1. Geologic Name of Surface Formation

A. Permian

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

F		
Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	560'	Water
Top of Salt	930'	Water
Base of Salt	4062'	Water
Delaware	4285'	Water
Bone Spring	8150'	Water/Oil/Gas
1st Bone Spring Ss	9085'	Water/Oil/Gas
2nd Bone Spring Ss	9900'	Water/Oil/Gas
3rd Bone Spring Ss	11070'	Water/Oil/Gas
Wolfcamp	11470'	Water/Oil/Gas
Wolfcamp A	11630'	Water/Oil/Gas
Target/Land Curve	11810'	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 16 inch casing @ ' (930' above the salt) and circulating cement back to surface. The salt will be isolated by setting 11-3/4 inch casing at 830' and circulating cement to surface. A 10-5/8 inch vertical hole will be drilled to 10380' and 8-5/8 inch casing ran and cemented 500' into the 11-3/4 inch casing. An 7-7/8 inch curve and lateral hole will be drilled to MD/TD and 5-1/2 casing will be set at TD and cemented back 300' into the 8-5/8 inch casing shoe.

#### 3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
14-3/4"	0' - 830'	11-3/4"	47	BTC	J-55	New	1.19	3.50	12.23
10-5/8"	0' - 10380'	8-5/8"	32	BTC	HCL-80	New	1.19	1.46	2.20
7-7/8"	0' – 21932'	5-1/2"	20	ВТС	P-110	New	1.18	1.57	2.14

#### · XTO requests to not utilize centralizers in the curve and lateral

- 8-5/8" Collapse analyzed using 50% evacuation based on regional experience.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- $\cdot$  Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

#### **WELLHEAD:**

#### Permanent Wellhead - GE RSH Multibowl System

- A. Starting Head (RSH System): 11-3/4" SOW bottom x 13-5/8" 5M top flange
- B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M 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 8-5/8" casing per Onshore Order 2.
  - Wellhead manufacturer representative may not be present for BOP test plug installation

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

#### 4. Cement Program

#### Surface Casing: 11-3/4", 47 New J-55, BTC casing to be set at +/- 830'

Lead: 240 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 190 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Top of Cement: Surface

Intermediate Casing: 8-5/8", 32 New HCL-80, BTC casing to be set at +/- 10380' ECP/DV Tool to be set at 880'

1st Stage

Lead: 20 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.87 ft3/sx, 9.61 gal/sx water)

Tail: 50 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Stage

Lead: 1880 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 310 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Compressives. 12-11 = 900 psi 24 fil =

Top of Cement: 200' inside previous casing shoe

Production Casing: 5-1/2", 20 New P-110, BTC casing to be set at +/- 21932'

Lead: 1740 sxs Halcem-C + 2% CaCl (mixed at 11.5 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 1740 sxs VersaCem (mixed at 13.2 ppg, 10788 ft3/sx, 8.38 gal/sx water)

Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

Top of Cement: 300' inside previous casing shoe

#### 5. Pressure Control Equipment

Once the permanent WH is installed on the 13-3/8 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M 3-Ram BOP. MASP should not exceed 4464 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). Also a variance is requested to test the 5M annular to 70% of working pressure at 3500 psi.

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 13-5/8" 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When the 11-3/4" and 8-5/8" casing is set, the packoff seals 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 each casing string and ensure that the well is cemented properly and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per GE recommendations, XTO will contact the BLM to skid the rig to drill the

remaining wells on the pad. Once surface and intermediate strings are all completed, ATO will begin drilling the production hole on each of the wells.

#### 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 830'	14-3/4"	FW / Native	8.4-8.8	30-40	NC
830' to 10380'	10-5/8"	BW/FWM/Di rect Emulsion	87-98	29-32	NC - 20
10380' to 21932'	7-7/8"	FW / Cut Brine / Polymer/ OBM	11.2-11.8	32-50	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 and set 11 3/4" surface casing, isolating the fresh water aquifer. Drill out from under 11-3/4" surface casing with a brine/oil direct emulsion water-based mud. 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.
- H2S monitors will be on location when drilling below the 11-3/4" casing.

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

Mud Logger: Mud Logging Unit (2 man) below 1st intermediate casing.

Open hole logging will not be done on this well.

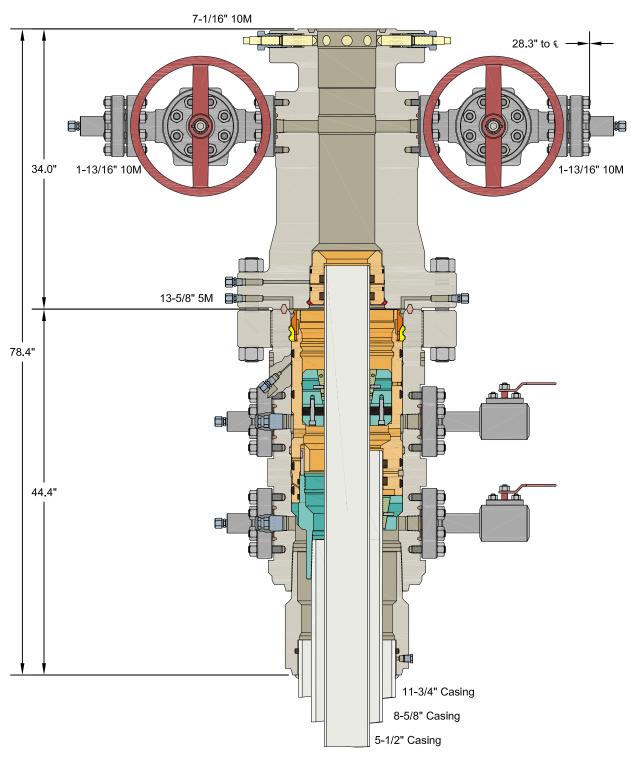
#### 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 155 to 175 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 7062 psi.

#### 10. Anticipated Starting Date and Duration of Operations

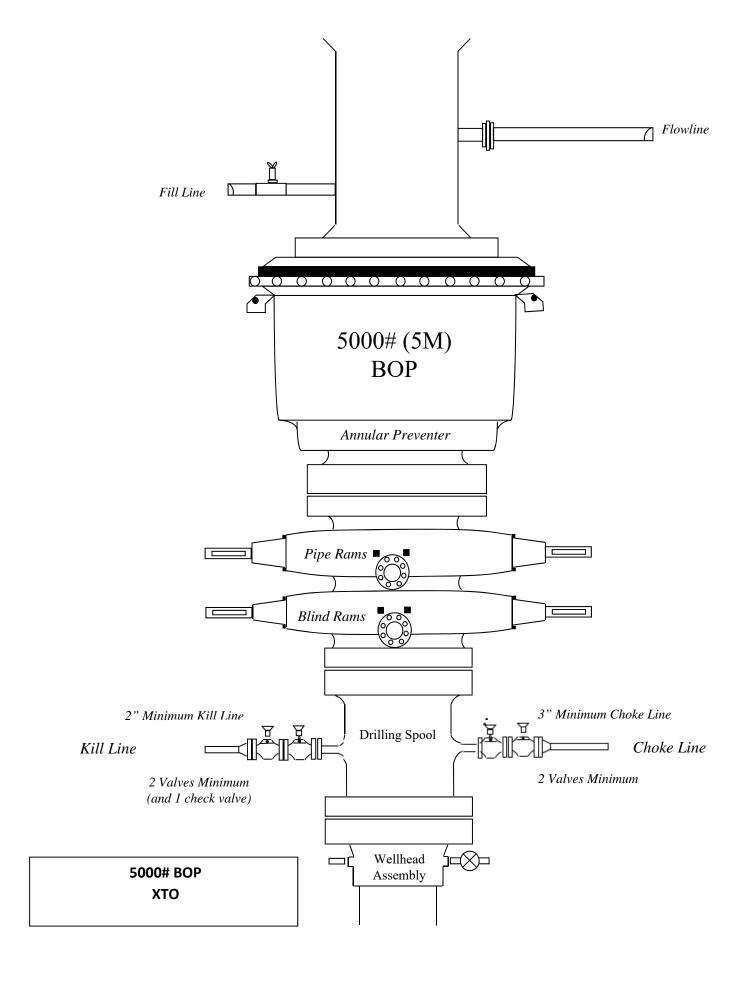
Road and location construction will begin after Santa Fe and BLM have approved the APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

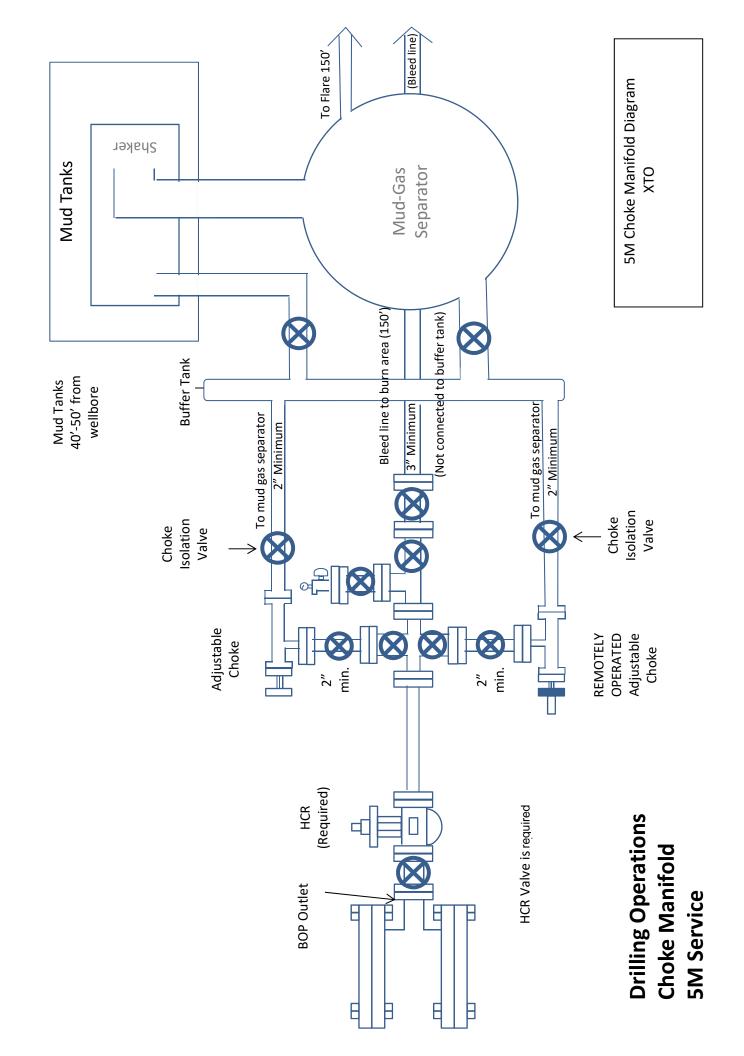


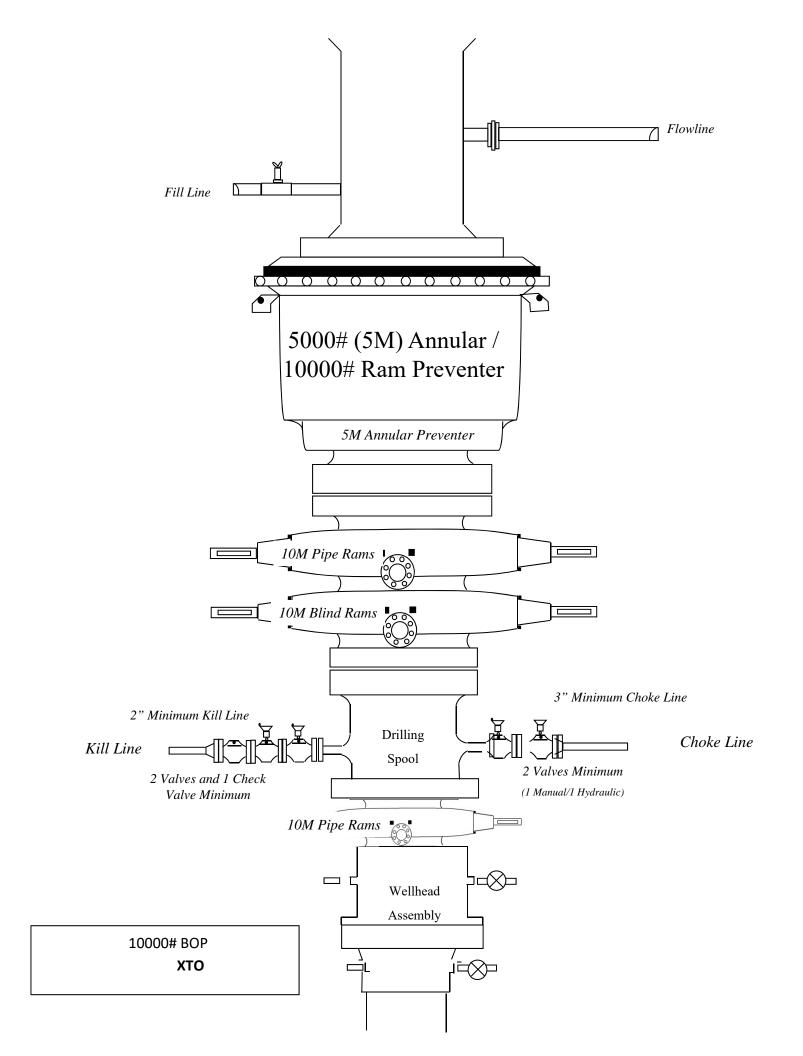


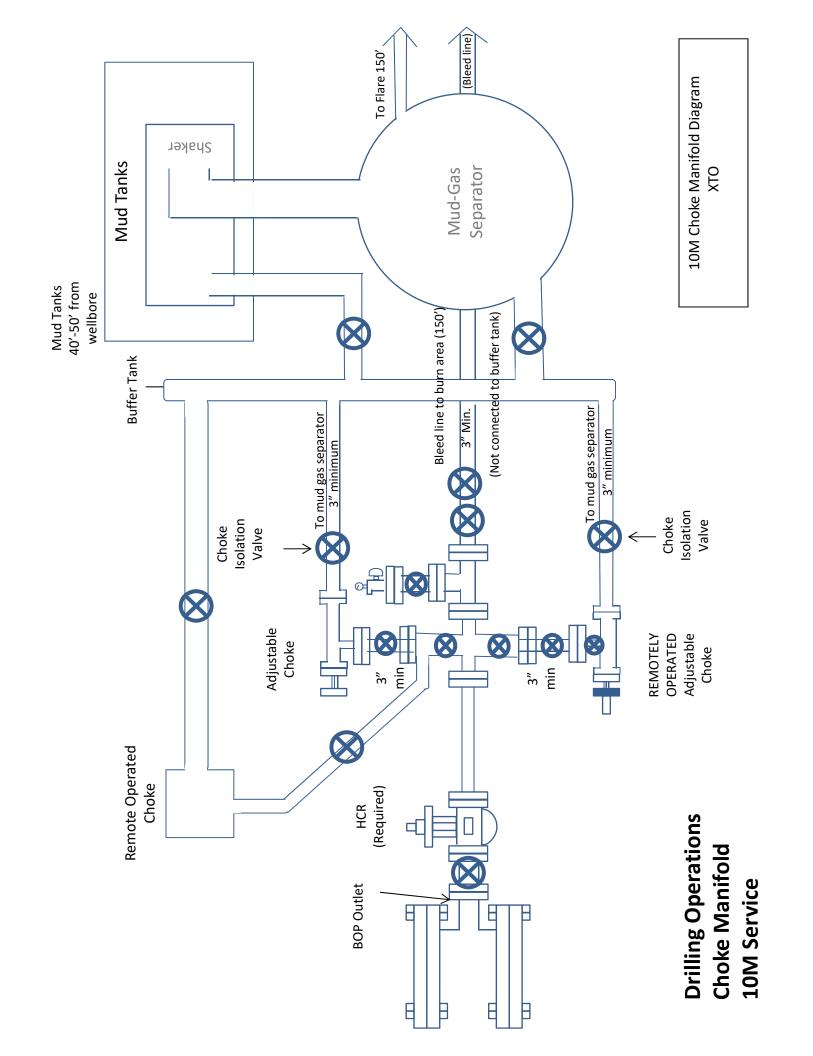
#### ALL DIMENSIONS ARE APPROXIMATE

This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing, neither it nor its contents may be used, copied, transmitted or reproduced except for the sole purpose of GE Oil & Gas Pressure Control LP.	XTO	XTO ENERGY, INC.			
11-3/4" x 8-5/8" x 5-1/2" 10M RSH-2 Wellhead	DRAWN	VJK	31OCT16		
	APPRV	KN	310CT16		
Assembly, With T-EBS-F Tubing Head	DRAWING NO. 10012358				









# 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	Annular	5M	Upper 3.5"-5.5" VBR	10M			
	4.500"			Lower 3.5"-5.5" VBR	10M			
HWDP	5.000" or	Annular	5M	Upper 3.5"-5.5" VBR	10M			
	4.500"			Lower 3.5"-5.5" VBR	10M			
Jars	6.500"	Annular	5M	-	-			
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-			
Mud Motor	6.750"-8.000"	Annular	5M	-	-			
Production Casing	5-1/2"	Annular	5M	-	-			
Open-Hole	-	Blind Rams	10M	-	-			

#### 2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the XTO Energy/Permian Operating drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

## **General Procedure While Drilling**

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

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

### **General Procedure While Tripping**

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

## General Procedure While Running Production Casing

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

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

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

#### General Procedures While Pulling BHA Through Stack

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

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



GATES E & S NORTH AMERICA, INC

**DU-TEX** 

**134 44TH STREET** 

CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807

FAX: 361-887-0812

EMAIL: crpe&s@gates.com

WEB: www.gates.com

# GRADE D PRESSURE TEST CERTIFICATE

Customer: Customer Ref. :

Invoice No.:

AUSTIN DISTRIBUTING

PENDING 201709

Test Date:

Hose Senal No.:

Created By:

6/8/2014

D-060814-1

NORMA

Product Description:

FD3.042.0R41/16.5KFLGE/E LE

End Fitting 1:

Gates Part No. :

Working Pressure:

4 1/16 in.5K FLG 4774-6001

5,000 PSI

End Fitting 2:

Assembly Code:

Test Pressure:

4 1/16 in.5K FLG

L33090011513D-060814-1

7,500 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality:

Date:

Signature:

QUALITY 6/8/2014 Technical Supervisor:

Date:

Signature:

**PRODUCTION** 

6/8/2014

Form PTC - 01 Rev.0 2

