

OCD Hobbs

ATS 16-99

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SHL: NMNM057285/BHL: NM0005519
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator XTO Energy, Inc (5380)		7. If Unit or CA Agreement, Name and No.
3a. Address 500 W. Illinois St Ste 100 Midland, Texas 79701	3b. Phone No. (include area code) 432-620-6714	8. Lease Name and Well No. Espejo Federal Com #1H (317589)
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 275'FSL & 1580'FEL, O-23-T19S-R34E At proposed prod. zone 330'FNL & 1580'FEL, A-26-T19S-R34E		9. API Well No. 30-025-43741
14. Distance in miles and direction from nearest town or post office* 18 Miles West/Southwest of Hobbs, NM		10. Field and Pool, or Exploratory Lea; Bone Spring (37570) ✓
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 275'	16. No. of acres in lease SHL: 1280 BHL: 280	11. Sec., T. R. M. or Blk. and Survey or Area O-23-T19S-R34E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 0' - 1st Well on Lease	19. Proposed Depth TVD: 10,684' MD: 16,190'	12. County or Parish Lea
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3774' GL	22. Approximate date work will start* ASAP	13. State NM
23. Estimated duration 90 Days		

HOBBS OCD

APR 10 2017

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24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature Stephanie Rabadue	Name (Printed/Typed) Stephanie Rabadue	Date 01/11/2016
Title Regulatory Analyst		

Approved by (Signature) /s/George MacDonell	Name (Printed/Typed)	Date AUG 1 - 2016
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.  
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

\*(Instructions on page 2)

Canitan Controlled Water Basin

K204110117

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Approval Subject to General Requirements  
& Special Stipulations Attached

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

XTO Energy Inc.  
Espejo Federal Com 1H  
Projected TD: 16190' MD / 10864' TVD  
SHL: 275' FSL & 1580' FEL, SECTION 23, T19S, R34E  
1<sup>st</sup> Take Point: 330 FNL & 980 FEL, SECTION 26-T19S-R34E  
2<sup>nd</sup> Take Point: 330 FSL & 829' FEL, SECTION 26-T19S-R34E  
BHL: 200' FSL & 825' FEL, SECTION 26, T19S, R34E  
Lea 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	1805'	Water
Top of Salt	1935'	Water
Base of Salt	3270'	Water
Yates	3490'	Water/Oil/Gas
Brushy Canyon	6690'	Water/Oil/Gas
Bone Spring	8210'	Water/Oil/Gas
1 <sup>st</sup> Bone Spring	9540'	Water/Oil/Gas
2 <sup>nd</sup> Bone Spring	10050'	Water/Oil/Gas
3 <sup>rd</sup> Bone Spring	10658'	Water/Oil/Gas
Target/Land Curve	10864'	Water/Oil/Gas

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 180'.

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 13-3/8" casing at 1850' above the salt and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 3525' and circulating cement to surface. An 8-3/4" curve and lateral hole will be drilled to MD/TD and 5-1/2" casing will be set at TD and cemented back up to the 9-5/8" casing shoe.

**3. CASING PROGRAM:**

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' - 1850' 1870	13-3/8"	54.5#	BTC	J-55	New	4.04	1.33	8.46
12-1/4"	0' - 3525' 4030	9-5/8"	36#	LTC	J-55	New	2.27	1.48	3.57
8-3/4"	0' - 16190'	5-1/2"	17#	BTC	P-110	New	1.12	1.44	1.98



## WELLHEAD:

- A. Starting Head: 13-5/8" 3000psi top flange x 13-3/8" SOW bottom
- B. 'B' Section/ Drilling Spool: 13-5/8" 3000psi bottom flange x 11" 5M top flange
- C. Tubing Head: 11" 5000psi bottom flange x 7-1/16" 10,000psi top flange

## 4. CEMENT PROGRAM:

- A. **Surface Casing:** 13-3/8", 54.5#, NEW J-55, BTC casing to be set at  $\pm 1850'$ . *1870 See COA*

Lead: 20 bbls FW, then 1115 sx ExtendaCem-CZ (mixed at 13.7 ppg, 1.68 ft<sup>3</sup>/sk, 8.72 gal/sx wtr)

Tail: 515 sx HalCem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sk, 6.39 gal/sx wtr)  
\*\*\*All volumes 100% excess in open hole. Cement to surface.

- B. **Intermediate Casing:** 9-5/8", 36#, NEW J-55, LTC casing to be set at  $\pm 3525'$ . *4030 See COA*

Lead: 20 bbls FW, then 1005 sx EconoCem-HLC + 5% salt + 5 lbm/sk Kol-Seal (mixed at 12.9 ppg, 1.88 ft<sup>3</sup>/sk, 9.61 gal/sx wtr)

Tail: 235 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sk, 6.34 gal/sx wtr)  
\*\*\*All volumes 100% excess in open hole. Cement to surface.

- C. **Production Casing:** 5-1/2", 17#, NEW P-110, BTC casing to be set at  $\pm 16190'$ . Casing will be cemented for the completion.

Lead: 20 bbls FW, then 765 sx Tuned Light + 0.5 lbm/sk CFR-3 + 1.5 lbm/sk salt + 0.1% HR601 (mixed at 10.5 ppg, 2.66 ft<sup>3</sup>/sk, 12.01 gal/sx wtr)

Tail: 1400 sx VersaCem PBHS2 + 0.5% LAP-2 + 0.25 lbm/sk D-air 5000 + 0.2% HR 601 (mixed at 13.2 ppg, 1.59 ft<sup>3</sup>/sk, 8.29 gal/sx wtr)

\*\*\*All volumes 30% excess in open hole. Planned top of cement 500' into intermediate casing shoe

## 5. PRESSURE CONTROL EQUIPMENT:

The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. Max bottom hole pressure should not exceed 4975 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 nipping up on the 13-5/8" 3M bradenhead and flange, the BOP test will be limited to 3000psi. When nipping up on the 9-5/8", the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagram is attached. Blind rams will be function tested each trip, pipe rams will be function 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.

## 6. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 1850' <sup>1870</sup>	17-1/2"	FW/Native	8.5-8.8	35-40	NC
<del>1850' to 3525'</del> <sup>4030</sup>	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3525' to 16190'	8-3/4"	FW / Cut Brine / Poly-Sweeps	8.6-8.8	29-32	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 13-3/8" surface casing with brine solution. A 9.8ppg-10.2ppg brine mud will be used while drilling through the salt formation. 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 13-3/8" casing.

## 8. LOGGING, CORING AND TESTING PROGRAM:

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

Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from kick-off point to intermediate casing shoe.

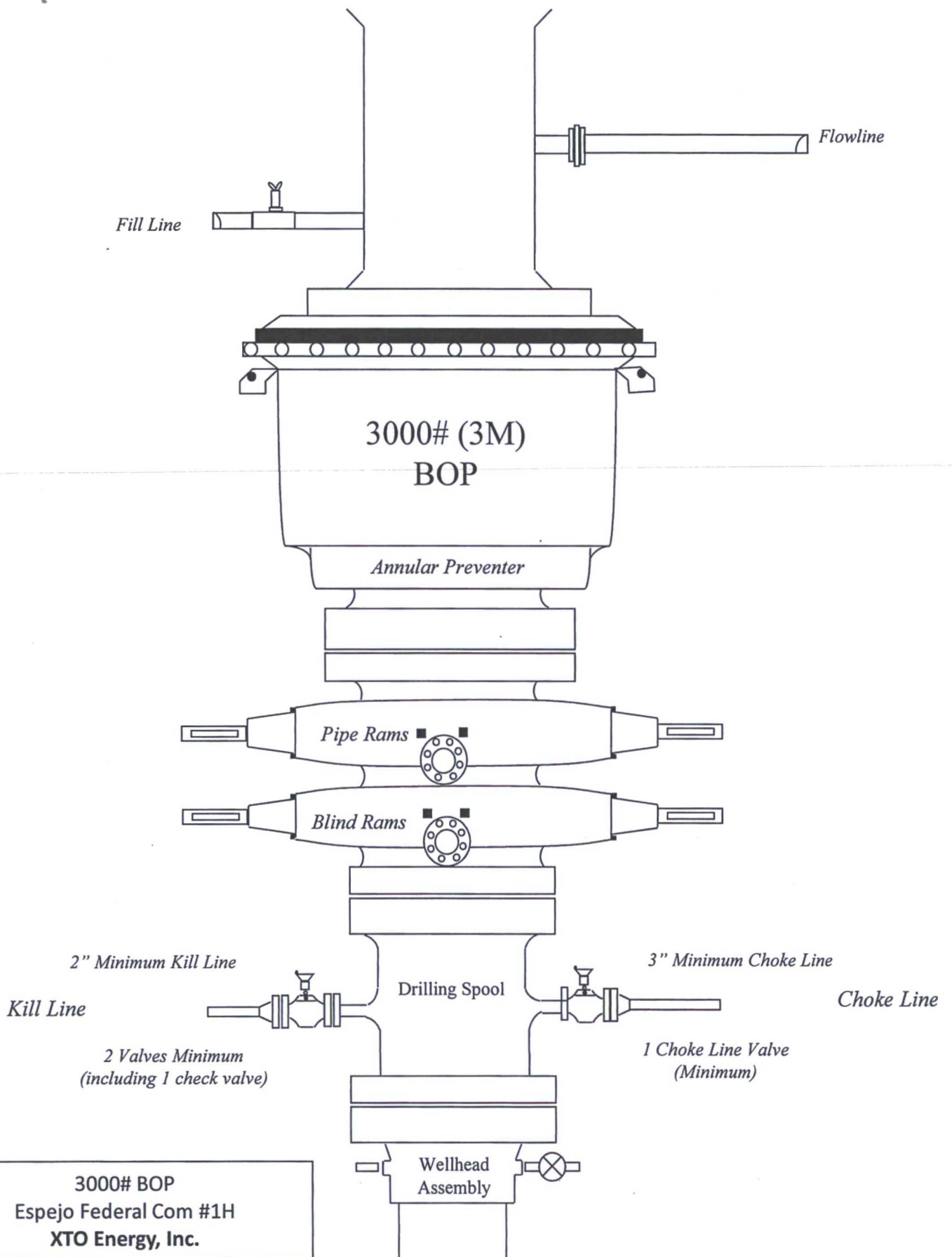
## 9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

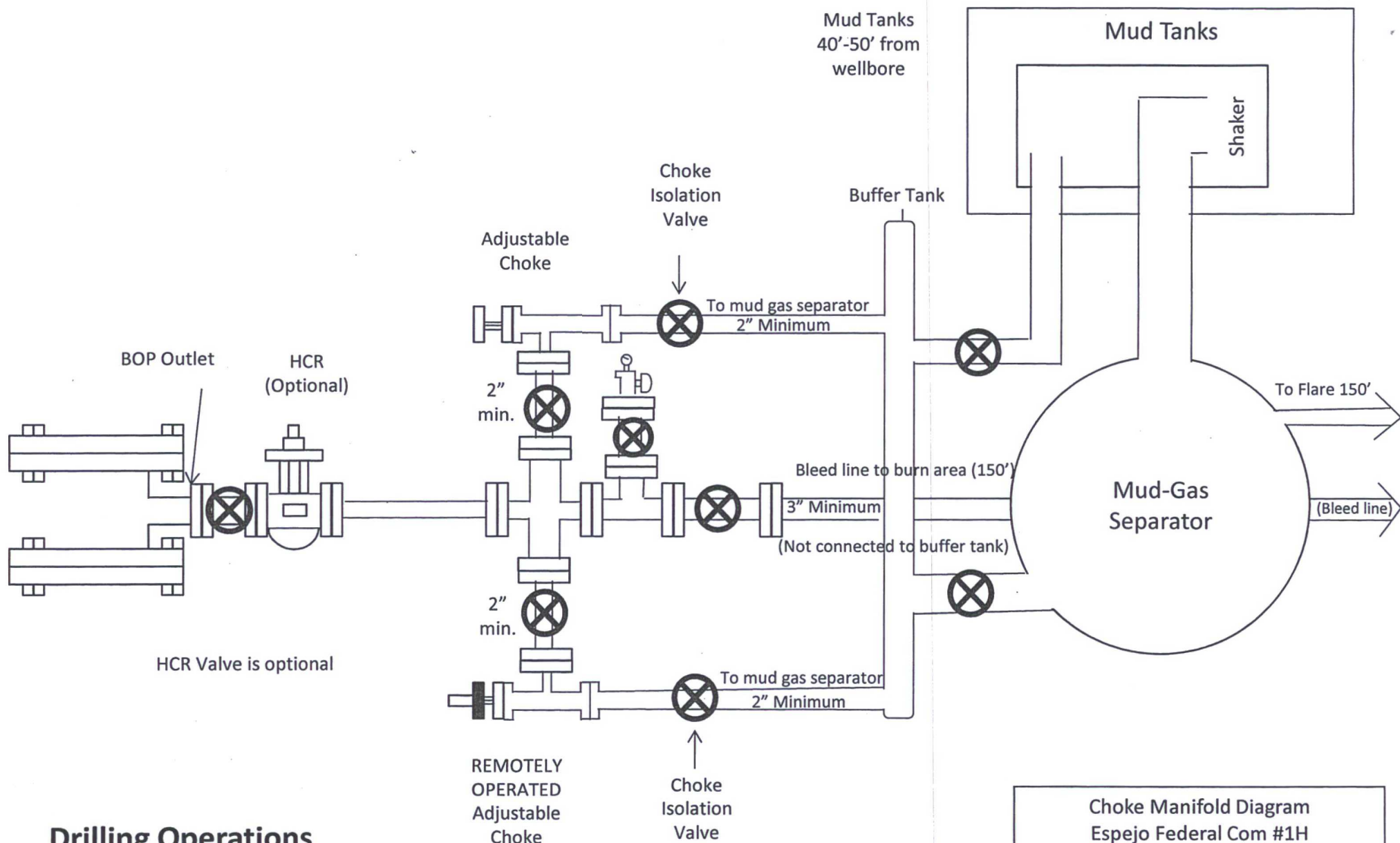
None anticipated. BHT of 180 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost 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.

## 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.

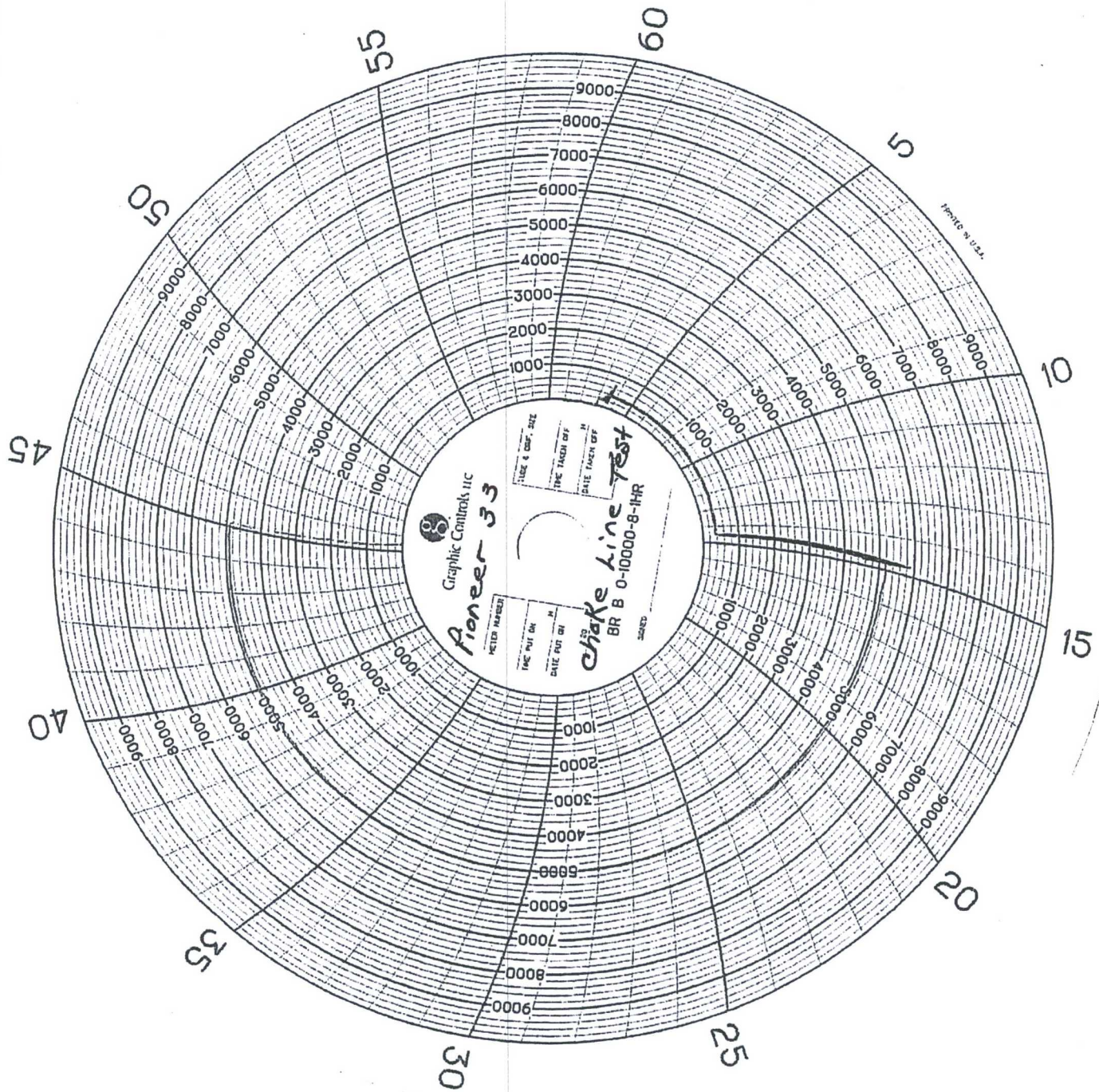




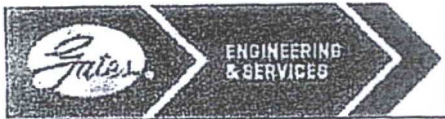


## Drilling Operations Choke Manifold

Choke Manifold Diagram  
Espejo Federal Com #1H  
XTO Energy, Inc..







GATES E & S NORTH AMERICA, INC  
DU-TEX  
134 44TH STREET  
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807  
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EMAIL: crpe&s@gates.com  
WEB: www.gates.com

### GRADE D PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA
Product Description:	FD3.042.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.SK FLG	End Fitting 2 :	4 1/16 in.SK FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	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:	QUALITY	Technical Supervisor :	PRODUCTION
Date :	6/8/2014	Date :	6/8/2014
Signature :		Signature :	



