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SEP 07 2016

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15-898

Form 3160-3
(August 2007)

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

5. Lease Serial No.
SHL:NMNM175774/BHL:NMNM111963

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. 316779
Ocioso 28 Federal Com #4H

2. Name of Operator XTO Energy, Inc (5380)

9. API Well No.
30-025-43413

3a. Address 500 W. Illinois Ste 100
Midland, Texas 79701

3b. Phone No. *(include area code)*
432-620-6714

10. Field and Pool, or Exploratory
Lusk; Bone Spring, South 41460

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 360'FSL & 550'FWL, M-21-T19S-R32E
At proposed prod. zone ~~330'FNL & 531'FWL~~ 200 FNL 400 FWL D-28-T19S-R32E

11. Sec., T. R. M. or Blk. and Survey or Area
M-21-T19S-R32E

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 360'FSL

16. No. of acres in lease
440

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1015' to #1H Well

19. Proposed Depth
TVD: 9390'
MD: 14,586'

20. BLM/BIA Bond No. on file
UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3578'

22. Approximate date work will start*

23. Estimated duration
45 Days

24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. 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
05/02/2015

Title
Regulatory Analyst

Approved by *(Signature)* /s/Cody Layton

Name *(Printed/Typed)*

Date
SEP 7 - 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)

KZ
09/01/16

Capitan Controlled Water Basin

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.
Ocioso 28 Federal COM 4H
Projected TD: 14586' MD / 9390' TVD
SHL: 360' FSL & 550' FWL, SECTION 21, T19S, R32E
BHL: 200' FSL & 400' FWL, SECTION 28, T19S, R32E
Lea County, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Permian

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Formation	Well Depth (TVD)	Water / Oil / Gas
Rustler	841'	Water
Top of Salt	973'	
Base of Salt	2453'	
Delaware	4759'	Water
Brushy Canyon	5842'	Water/Oil/Gas
Bone Spring	7264'	Water/Oil/Gas
1st Bone Spring Ss	8447'	Water/Oil/Gas
2nd Bone Spring Ss	9140'	Water/Oil/Gas
Target/Land Curve	9390'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon
*** Groundwater depth 223' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8" casing @ 875' above the salt and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 4725' and circulating cement to surface. An 8-3/4" curve and lateral hole will be drilled to MD/TD and 5-1/2" casing with sliding frac sleeves will be set at TD and cemented back 500' into the 9-5/8" casing shoe.

3. CASING PROGRAM: See COA

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – ~~875'~~ 920'	13-3/8"	48#	STC	H-40	New	5.32	1.85	7.67
12-1/4"	0' – 3500'	9-5/8"	36#	LTC	J-55	New	1.76	1.18	2.59
	3500' – ~~4725'~~ 4520'	9-5/8"	40#	LTC	J-55	New	1.98	1.41	10.61
8-3/4"	0' – 14586'	5-1/2"	17#	BTC	P-110	New	1.12	1.67	2.29

WELLHEAD:

A. Starting Head: 13-5/8" 3000 psi 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: See COA

A. **Surface Casing:** 13-3/8", 48#, NEW H-40, STC casing to be set at ± 875'.

Lead: 20 bbls FW, then 475 sx ExtendaCem-CZ (mixed at 13.7 ppg, 1.68 ft^3/sk, 8.72 gal/sx wtr)

Tail: 305 sx HalCem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft^3/sk, 6.39 gal/sx wtr)
***All volumes 100% excess in open hole. Cement to surface.

B. **Intermediate Casing:** 9-5/8", 36#/40#, NEW J-55, LTC casing to be set at ± 4725'.

Lead: 20 bbls FW, then 1400 sx EconoCem-HLC + 5% salt + 5 lbm/sk Kol-Seal (mixed at 12.9 ppg, 1.88 ft^3/sk, 9.61 gal/sx wtr)

Tail: 250 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft^3/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 ± 14586'. Casing will be cemented and will include sliding sleeves for the completion.

Low cement

Lead: 20 bbls FW, then 455 sx Tuned Light + 0.5 lbm/sk CFR-3 + 1.5 lbm/sk salt + 0.1% HR601 (mixed at 10.5 ppg, 2.69 ft^3/sk, 12.26 gal/sx wtr)

Tail: 1350 sx VersaCem PBHS2 + 0.5% LAP-1 + 0.25 lbm/sk D-air 5000 + 0.2% HR 601 + 0.4% CFR-3 + 1 pps Salt (mixed at 13.2 ppg, 1.61 ft^3/sk, 8.38 gal/sx wtr)
***All volumes 30% excess in open hole. ~~Planned top of cement 500' into intermediate casing shoe~~ TOC ~ 50' above Capitan Reef ~ 3015' - See COA

5. PRESSURE CONTROL EQUIPMENT: See COA

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 4500 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" 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nippling 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 diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

See COA 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: See COA

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to ~~875'~~ 4720'	17-1/2"	FW/Native	8.4 - 8.8	35 - 40	NC
~~875' to 4725'~~ 4520'	12-1/4"	Brine/Gel Sweeps	9.8 - 10.2	30 - 32	NC
4725' to 14586'	8-3/4"	FW / Cut Brine / Poly-Sweeps	8.6 - 9.2	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. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

A. A Kelly cock will be in the drill string at all times.
B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
C. H2S monitors will be on location when drilling below the 13-3/8" 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 KOP to intermediate casing shoe.

9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS: — See COA

None anticipated. BHT of 160 F is anticipated. ~~No H2S~~ H2S might be present 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.

XTOENERGY

Project: Lea County, NM (NAD27)
Site: Ocioso 21 Federal Com
Well: 4H
Wellbore: Wellbore #1
Design: Plan 1 05-01-15
Rig: Noram 25

PHOENIX TECHNOLOGY SERVICES

Azimuths to Grid North
True North: -0.30°
Magnetic North: 7.12°

Magnetic Field
Strength: 48620.7nT
Dip Angle: 60.67°
Date: 6/1/2015
Model: HDGM

RKB @ 3603.00usft (Noram 25)
Ground Level: 3578.00

WELL DETAILS

Ground Level: 3578.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	596823.30	671108.60	32° 38' 22.34081 N	103° 46' 38.89766 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	8817.06	0.00	0.00	8817.06	0.00	0.00	0.00	0.00	0.00		KOP, Begin 10.00°/100' Build
3	9713.06	89.60	181.17	9390.00	-568.84	-11.66	10.00	181.17	568.96		LP, Hold 89.60° Inc
4	14586.16	89.60	181.17	9424.02	-5440.80	-111.50	0.00	0.00	5441.94	BHL_4H	TD at 14586.16' MD

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
841.00	841.00	Rustler	0.40	181.17
973.00	973.00	Top Salt	0.40	181.17
2453.00	2453.00	Base Salt	0.40	181.17
2630.00	2630.00	Yates	0.40	181.17
2944.00	2944.00	Seven Rivers	0.40	181.17
4759.00	4759.00	Delaware	0.40	181.17
5842.00	5842.00	Brushy Canyon	0.40	181.17
7264.00	7264.00	Bone Spring	0.40	181.17
8447.00	8447.00	First Bone Spring Sand	0.40	181.17
9140.70	9160.98	Second Bone Spring Sand	0.40	181.17

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TP1_4H	9390.65	-689.90	-14.10	596133.40	671094.50	32° 38' 15.51480 N	103° 46' 39.10478 W	Point
TP2_4H	9423.12	-5310.80	-108.80	591512.50	670999.80	32° 37' 29.79465 N	103° 46' 40.49468 W	Point
BHL_4H	9424.02	-5440.80	-111.50	591382.50	670997.10	32° 37' 28.50840 N	103° 46' 40.53419 W	Rectangle (Sides: L4873.10 W100.00)

CASING DETAILS

No casing data is available

LEGEND

— - 1H, Wellbore #1, Plan 1 05-01-15 V0
— Plan 1 05-01-15

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

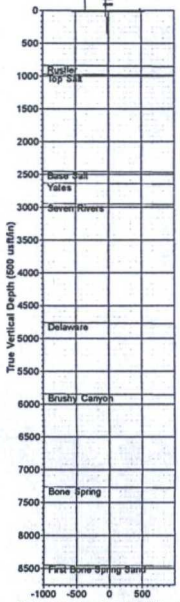
Local Origin: Well 4H, Grid North

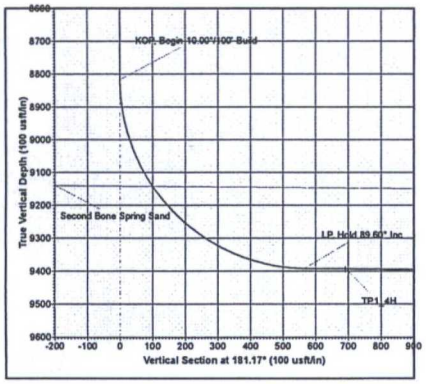
Latitude: 32° 38' 22.34081 N
Longitude: 103° 46' 38.89766 W

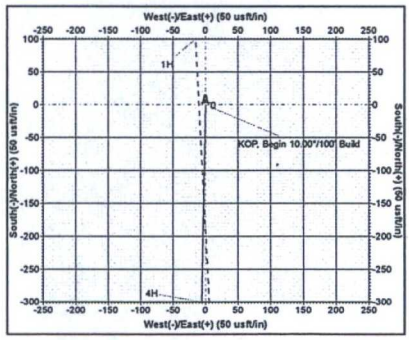
Grid East: 671108.60
Grid North: 596823.30
Scale Factor: 1.000

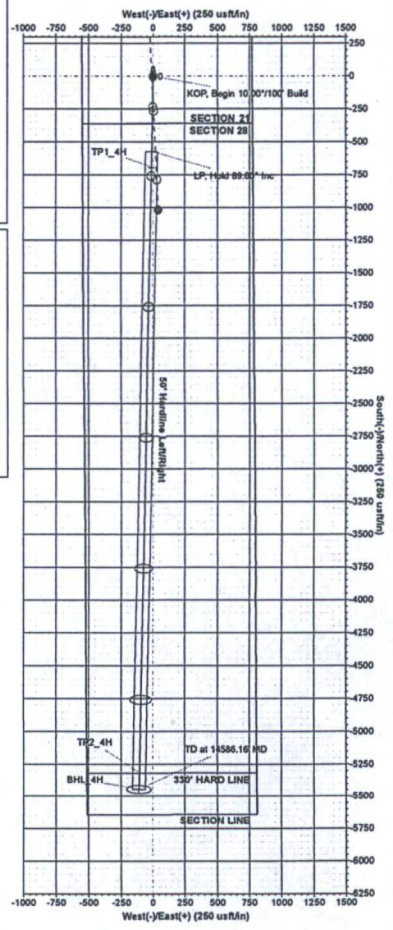
Geomagnetic Model: HDGM
Sample Date: 01-May-15
Magnetic Declination: 7.42°
Dip Angle from Horizontal: 60.67°
Magnetic Field Strength: 48621

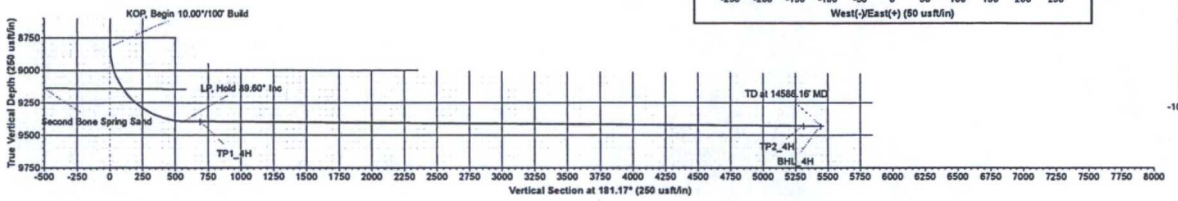
To convert a Magnetic Direction to a Grid Direction, Add 7.12°
To convert a Magnetic Direction to a True Direction, Add 7.42° East
To convert a True Direction to a Grid Direction, Subtract 0.30°











Created By: Travis Kniss Date: 14:18, May 01 2015

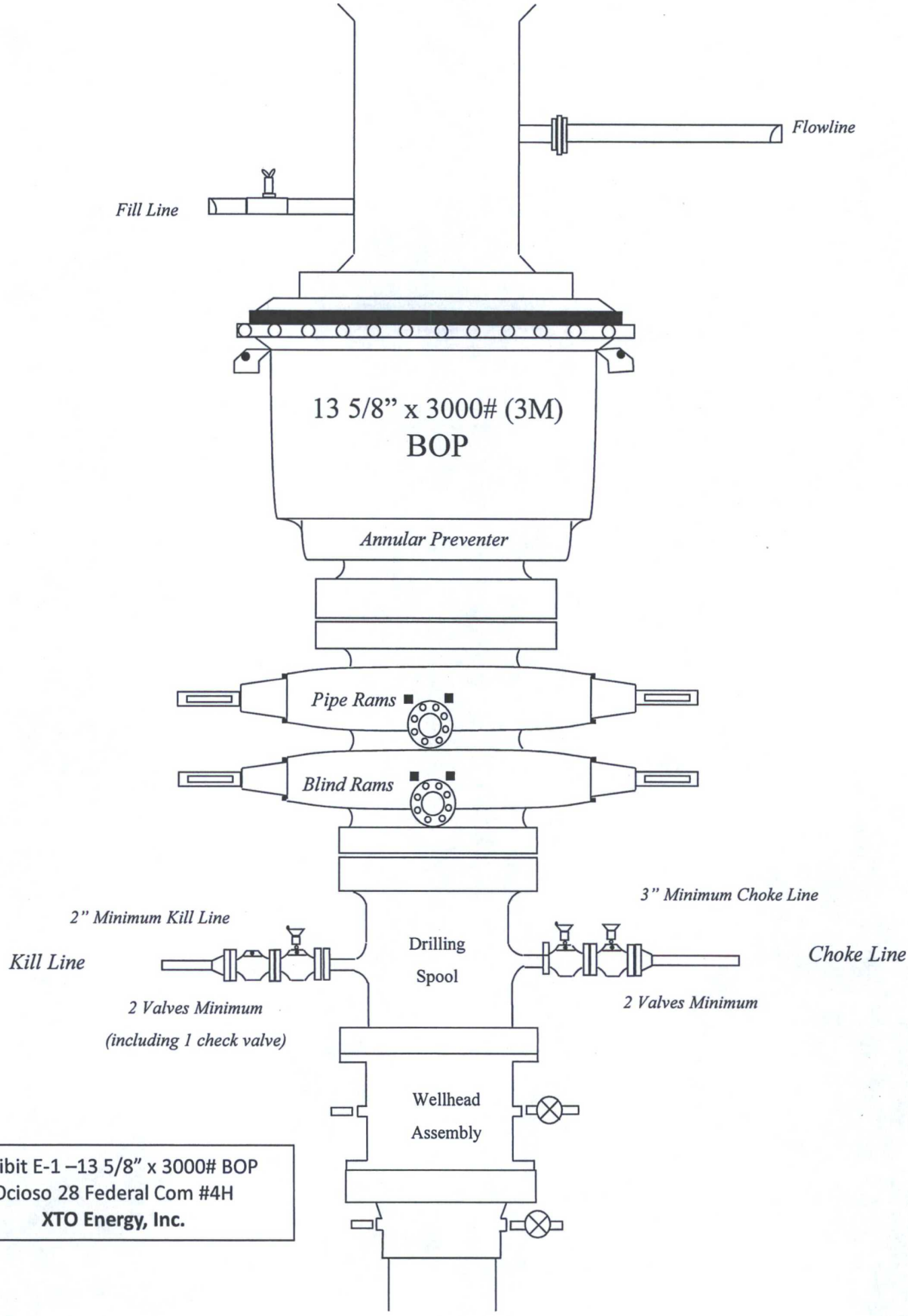


Exhibit E-1 –13 5/8" x 3000# BOP
Ocioso 28 Federal Com #4H
XTO Energy, Inc.

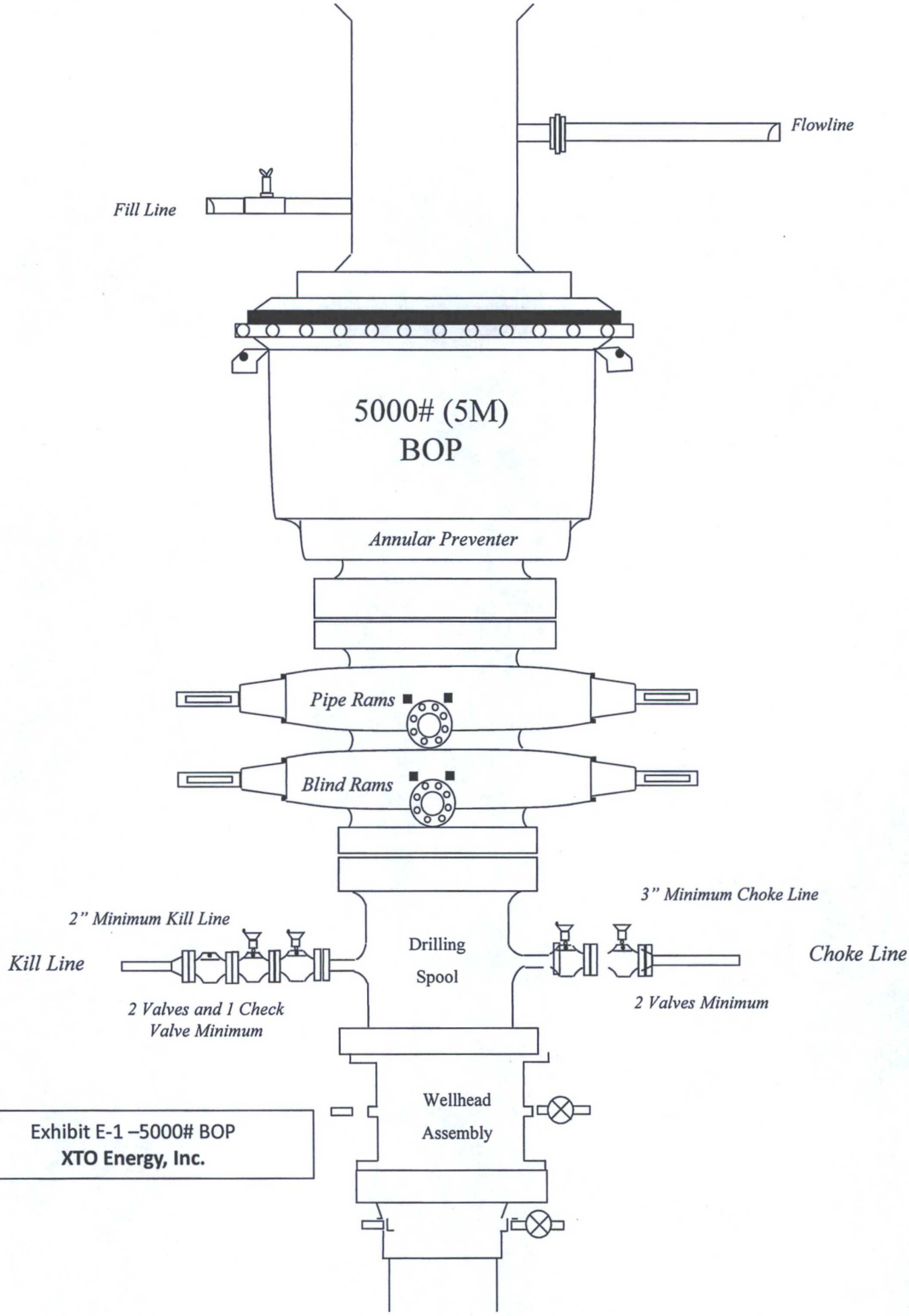
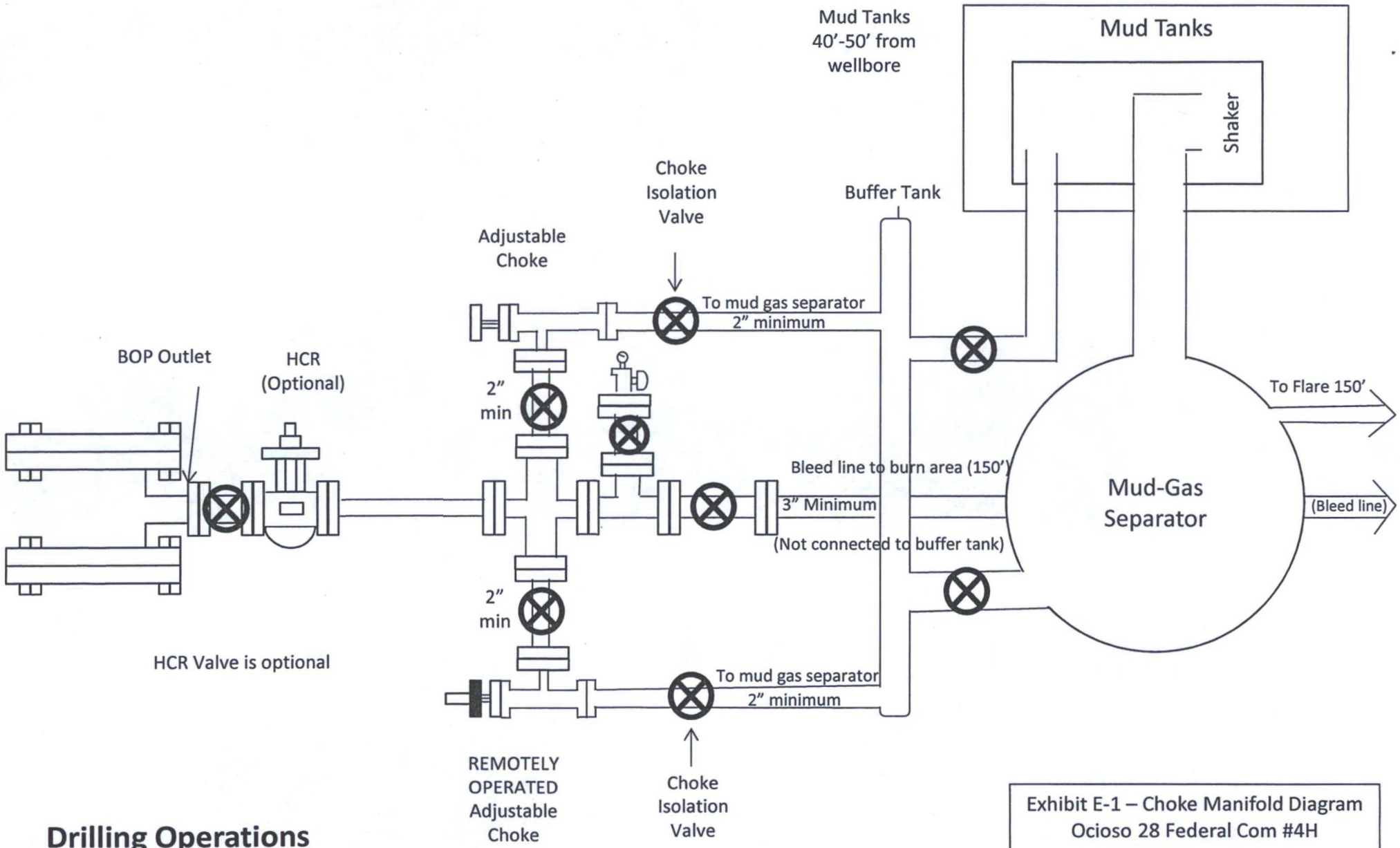
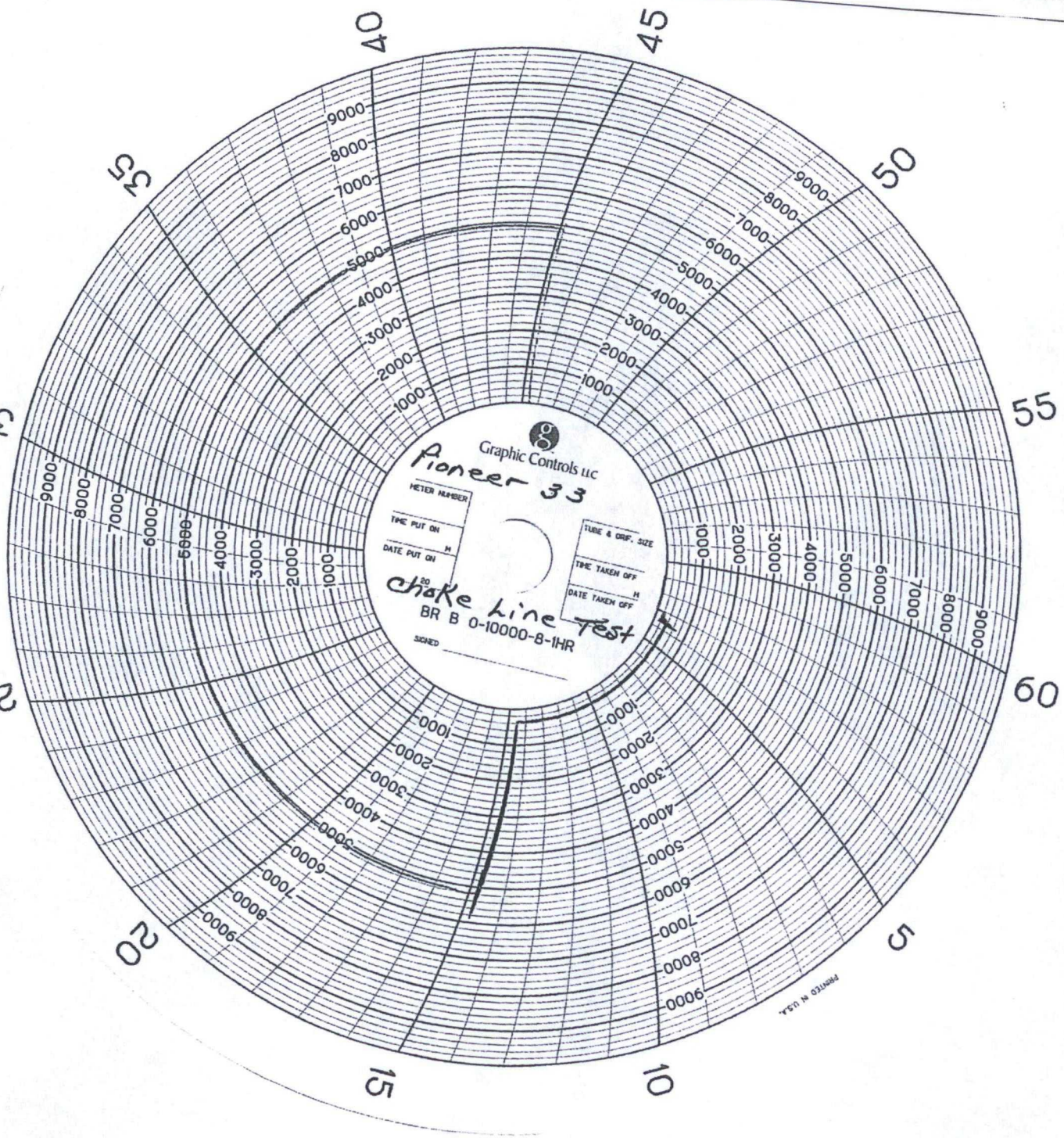


Exhibit E-1 –5000# BOP
XTO Energy, Inc.



Drilling Operations
Choke Manifold

Exhibit E-1 – Choke Manifold Diagram
Ocioso 28 Federal Com #4H
XTO Energy, Inc..


Graphic Controls LLC
Pioneer 33
METER NUMBER
TIME PUT ON
DATE PUT ON
TUBE & ORIF. SIZE
TIME TAKEN OFF
DATE TAKEN OFF
Choke Line Test
BR B 0-10000-8-1HR
SIGNED
PRINTED IN U.S.A.

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

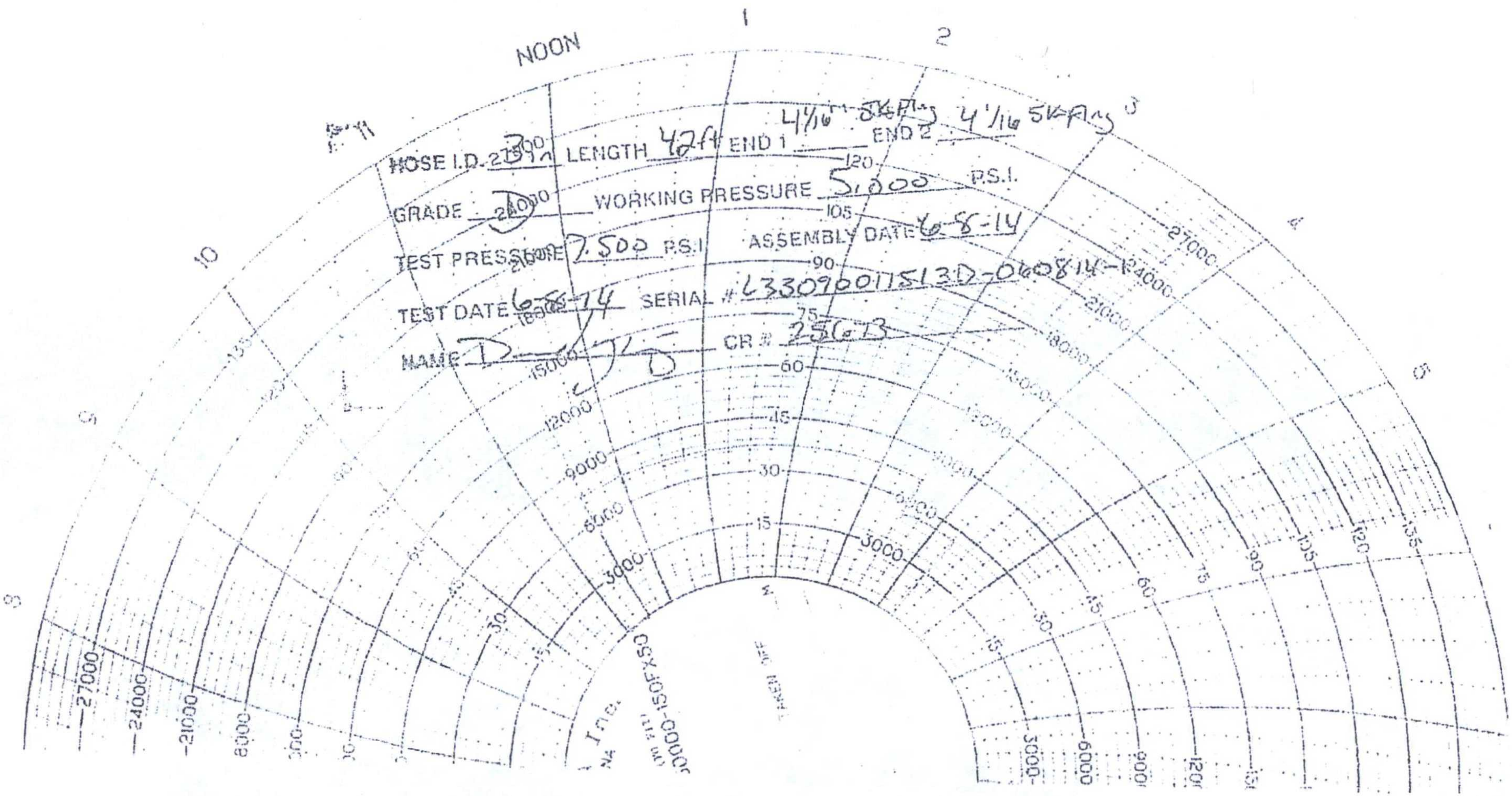
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

Product Description:	FD3.042.0R41/16.5KFLGE/E LE

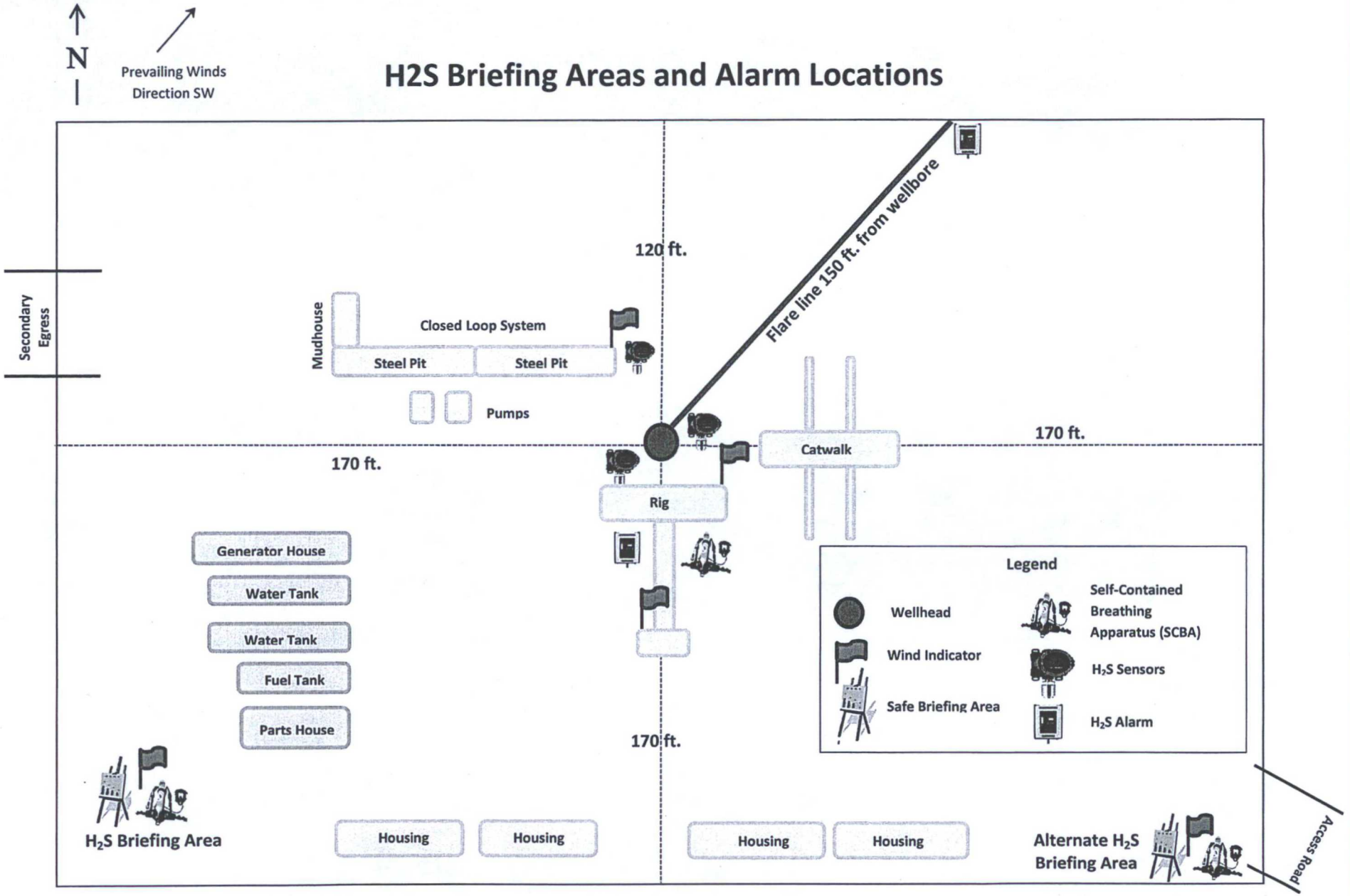
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

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 :	


NOON
HOSE I.D. 3 in LENGTH 42 ft END 1 4 1/16" 5K Flg END 2 4 1/16 5K Flg
GRADE D WORKING PRESSURE 5,000 P.S.I.
TEST PRESSURE 7,500 P.S.I. ASSEMBLY DATE 6-8-14
TEST DATE 6-8-14 SERIAL # L33090011513D-060814-P
CR # 25673

H2S Briefing Areas and Alarm Locations



May 30, 2015

Stephanie Rabadue
XTO Energy Inc.
500 W. Illinois St Ste 100
Midland, TX 79701
432-620-6714
stephanie_rabadue@xtoenergy.com

Bureau of Land Management
620 E. Greene
Carlsbad, NM 88220
575-887-6544

Dear Sirs:

XTO Energy Inc. does not anticipate encountering H2S while drilling the Ocioso 28 Federal Com #4H located in Section 21, T19S, R32E, in Lea County, New Mexico. As a precaution, I have attached an H2S contingency plan along with a gas analysis of our well stream. If you need anything further, please contact me at the telephone number or email listed above.

Thank you,

Stephanie Rabadue

Stephanie Rabadue
Regulatory Analyst