Form 3160-5 (June 2015)

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

# Artesia

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

# 5. Lease Serial No. NMNM0506A

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

-	ICI . Street	A 11 44	T 1 1	L T

abandoned we	II. Use form 3160-3 (AP	D) for such	proposals.		6. If Indian, Allottee o	r Tribe Name
SUBMIT IN	TRIPLICATE - Other ins	tructions on	page 2		7. If Unit or CA/Agree 891000303X	ement, Name and/or No.
Type of Well     Gas Well □ Otl	8. Well Name and No. POKER LAKE UN	IT 15 TWR 907H				
2. Name of Operator XTO PERMIAN OPERATING	Contact: LLC E-Mail: kelly_kardo	KELLY KAR os@xtoenergy	DOS .com		9. API Well No. 30-015-45062-0	0-X1
3a. Address 6401 HOLIDAY HILL ROAD E MIDLAND, TX 79707	BLDG 5	3b. Phone No Ph: 432-62	o. (include area code) 20-4374		10. Field and Pool or I WILDCAT CHE	Exploratory Area STER
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	)	· **	7	11. County or Parish,	State
Sec 15 T24S R31E SWSE 33 32.211014 N Lat, 103.763496					EDDY COUNTY	, NM
12. CHECK THE AI	PPROPRIATE BOX(ES)	TO INDICA	TE NATURE O	F NOTICE,	REPORT, OR OTH	ER DATA
TYPE OF SUBMISSION	·		TYPE OF	ACTION		
<ul><li>☑ Notice of Intent</li><li>☐ Subsequent Report</li><li>☐ Final Abandonment Notice</li></ul>	☐ Acidize ☐ Alter Casing ☐ Casing Repair ☐ Change Plans ☐ Convert to Injection	□ Nev	draulic Fracturing v Construction g and Abandon	□ Reclam	olete arily Abandon	□ Water Shut-Off □ Well Integrity ☑ Other Change to Original A PD'
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 f XTO Permian Operating, LLC attached drilling program	operations. If the operation respondenment Notices must be file inal inspection.	sults in a multip ed only after all	le completion or reco requirements, includi	mpletion in a r ing reclamation	new interval, a Form 3166 n, have been completed a	1.4 must be filed once
		1	SEE ATT	ΓΑCHE ΊONS (	AP D FO <b>ristrict</b> DF APPROV	R <b>0</b> 1 2019 II-ARTESIA O.C.D. A L
14. I hereby certify that the foregoing is  Com  Name (Printed/Typed) KELLY KA  Signature (Electronic Section 1985)	Electronic Submission #4 For XTO PERMI, mitted to AFMSS for proce	AN OPERATII	IG LLC, sent to the SCILLA PEREZ on	ne Carlsbad n 03/15/2019 ATORY CO APPF	-	
	THIS SPACE FO	R FEDERA	L OR STATE (	OFF KARU	2019	
Approved By  Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to conduct the conduction of the co	uitable title to those rights in the oct operations thereon.  U.S.C. Section 1212, make it a	subject lease	Office Property and	WELL FIEL	MANAGEMENT  D MANAGEMENT  ake to any department or a	Date
States any false, fictitious or fraudulent s	tatements or representations as	to/any matter w	ithin its jurisdiction.			<u> </u>

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

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

XTO Energy Inc.
PLU 15 Twin Wells Ranch #907H
Projected TD: 23018' MD / 11956' TVD
SHL: 330' FSL & 1965' FEL., Section 15, T24S, R31E
BHL: 200' FSL & 990' FEL , Section 27, 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:

		* * * · · ·
Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler .	724'	Water
Top of Salt	1082'	Water
Base of Salt	4268'	Water
Delaware	4491'	Water
Bone Spring	8344'	Water/Oil/Gas
1st Bone Spring Ss	9412'	Water/Oil/Gas
2nd Bone Spring Ss	9998'	Water/Oil/Gas
3rd Bone Spring Ss	11245'	Water/Oil/Gas
Wolfcamp	11683'	Water/Oil/Gas
Target/Land Curve	11956'	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 @ 880' (202' above the salt) and circulating cement back to surface. The salt will be isolated by setting 11-3/4 inch casing at 4320' and circulating cement to surface. A 10-5/8 inch vertical hole will be drilled to 10600' 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
18-1/2"	0'-880'	16	65	STC	H-40	New	1.27	1.58	10.39
14-3/4"	0' - 4320'	11-3/4"	47	втс	<b>J-5</b> 5	New	1.10	1.15	3.07
10-5/8"	0'-10600'	8-5/8"	32	втс	HCL-80	New	1.30	1.35	2.38
7-7/8"	0' 23018'	5-1/2"	17	втс	P-110	New	1.01	1.81	2.06

XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.

- 11-3/4" Collapse analyzed using 50% evacuation based on regional experience.
- 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

#### WELLHEAD:

### Temporary Wellhead

• 16" SOW x 16-3/4" 3M top flange

# Permanent Wellhead - GE RSH Multibowl System

- A. Starting Head (RSH System): 11-3/4" SOW bottom x 13-5/8" 2M 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.

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

- 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

#### 4. Cement Program

Surface Casing: 16, 65 New H-40, STC casing to be set at +/- 880'

Lead: 290 sxs EconoCem-HLTRRC (mixed at 12.8 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 200 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

1st Intermediate Casing: 1,1-3/4", 47 New J-55, BTC casing to be set at +/- 4320'

Lead: 1590 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 550 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 Intermediate Casing (Stage 2): 8-5/8", 32 New HCL-80, BTC casing to be set at +/- 10600' ECP/DV Tool to be set at 4370' 1st Stage

Lead: 790 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.87 ft3/sx, 9.61 gal/sx water)

Tail: 270 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: 1150 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:

Production Casing: 5-1/2", 17 New P-110, BTC casing to be set at +/- 23018'

Lead: 1910 sxs Halcem-C + 2% CaCl (mixed at 11.5 ppg, 1.88 ft3/sx, 9.61 gal/sx water) . \ \ \ \ \ \ 33

Tail: 1910 sxs VersaCem (mixed at 13.2 ppg, 10756 ft3/sx, 8.38 gal/sx water)

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

#### 5. Pressure Control Equipment

The blow out preventer equipment (BOP) on surface casing temporary wellhead will consist of a 21-1/4" minimum 2M Hydril. MASP should not exceed 1296 psi.

Once the perminent wellhead is installed the blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 4084 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.

# 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 880'	18-1/2"	FW/Native	8.4-8.8	35-40	NC
880' to 4320'	14-3/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
4320' to 10600'	10-5/8"	FW / Cut Brine	9.1-9.5	29-32	NC - 20
10600' to 23018'	7-7/8"	FW / Cut Brine / Polymer/ OBM	10.5-11.1	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. Drill out from under 16" 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) below 1st intermediate casing.

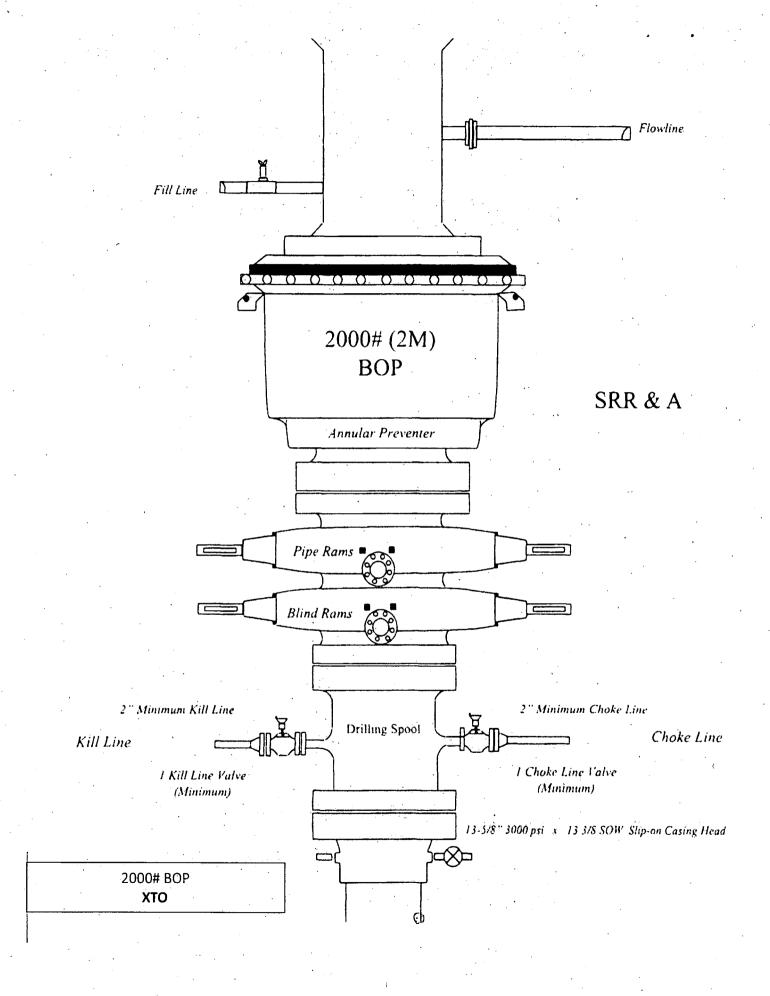
Open hole logging will not be done on this well.

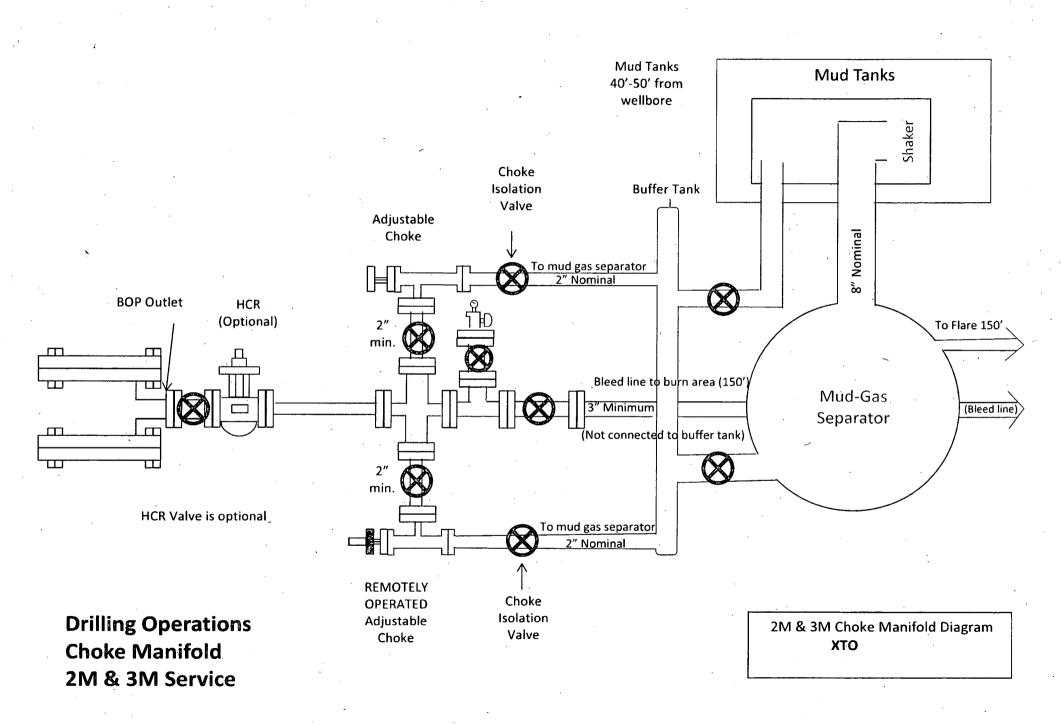
# 9. Abnormal Pressures and Temperatures / Potential Hazards

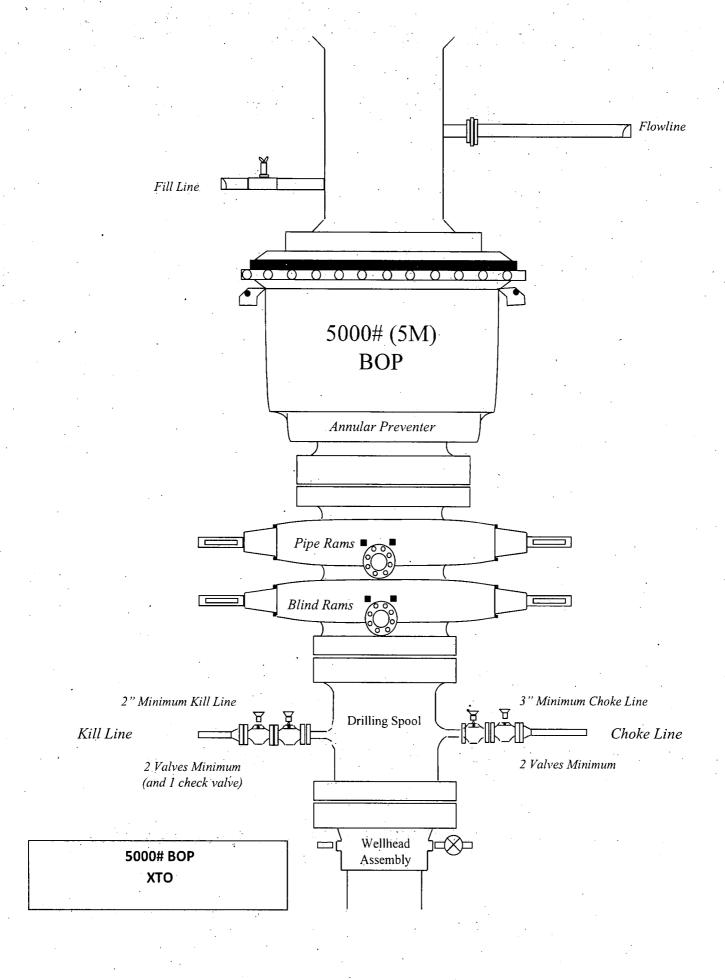
None Anticipated. BHT of 155 to 175 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. 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 6714 psi.

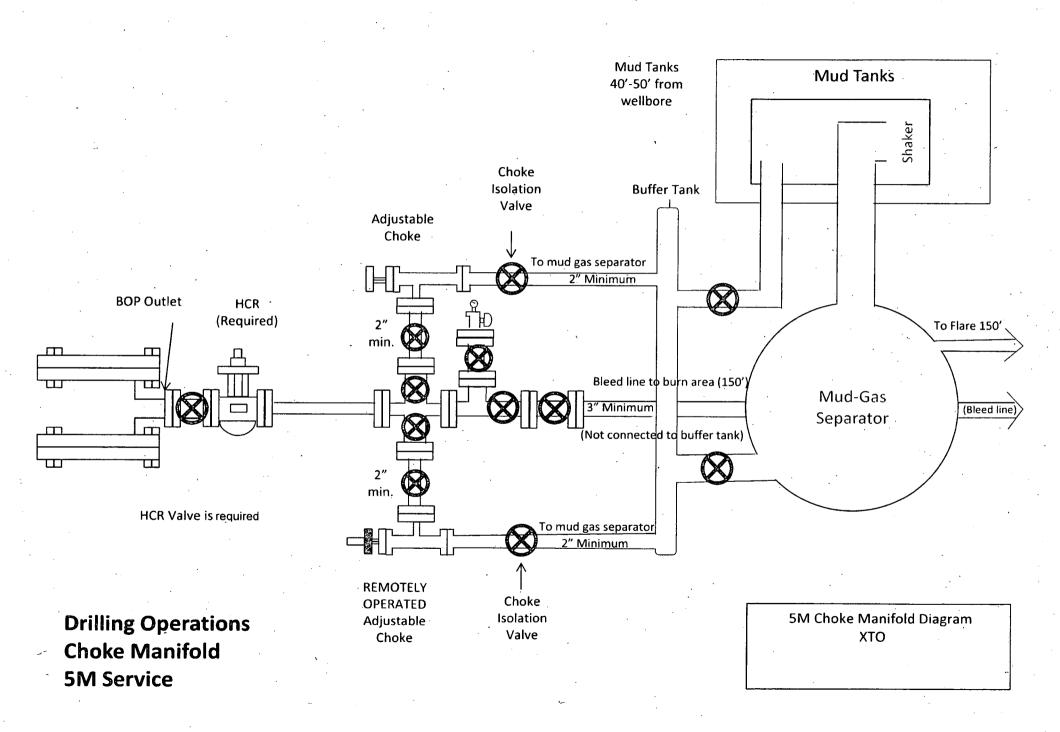
# 10. Anticipated Starting Date and Duration of Operations

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.

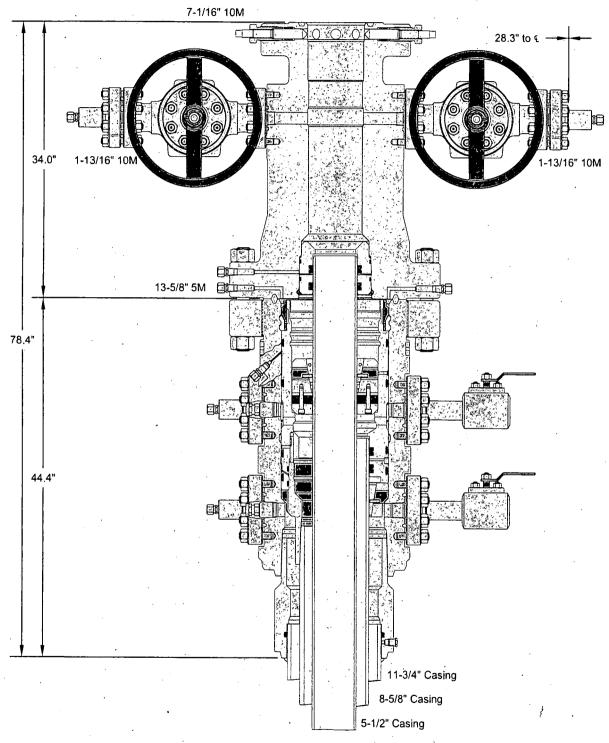












# ALL DIMENSIONS ARE APPROXIMATE

	Assembly, with 1-EBS-F Tubing Head	DRAWING NO. 10012358			
	Assembly, With T-EBS-F Tubing Head	APPRV	KN	310CT16	
	11-3/4" x 8-5/8" x 5-1/2" 10M RSH-2 Wellhead	DRAWN	VJK	310CT16	
	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 ENERGY, INC.			