

**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 Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101  
August 1, 2011

Permit 308208

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707		2. OGRID Number 5380
		3. API Number 30-015-49288
4. Property Code 317790	5. Property Name REMUDA NORTH 25 STATE	6. Well No. 702H

**7. Surface Location**

UL - Lot K	Section 25	Township 23S	Range 29E	Lot Idn	Feet From 2369	N/S Line S	Feet From 2009	E/W Line W	County Eddy
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**8. Proposed Bottom Hole Location**

UL - Lot D	Section 24	Township 23S	Range 29E	Lot Idn D	Feet From 200	N/S Line N	Feet From 1210	E/W Line W	County Eddy
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**9. Pool Information**

FORTY NINER RIDGE BONE SPRING, WEST	96526
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3070
16. Multiple N	17. Proposed Depth 17043	18. Formation Bone Spring	19. Contractor	20. Spud Date 4/11/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	11.75	54	395	320	0
Int1	8.75	7.625	29.7	3178	320	0
Prod	6.75	5.5	20	17043	880	2678

**Casing/Cement Program: Additional Comments**

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 the option to offline cement and remediate (if needed) surface, intermediate, and production 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.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	2077	3000	Camron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	<b>OIL CONSERVATION DIVISION</b>	
Signature:		
Printed Name: Electronically filed by Tiffany Yancey	Approved By: Katherine Pickford	
Title: Production Analyst	Title: Geoscientist	
Email Address: tiffany.yancey@exxonmobil.com	Approved Date: 2/21/2022	Expiration Date: 2/21/2024
Date: 2/15/2022	Phone: 432-215-8939	Conditions of Approval Attached

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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

<sup>1</sup> API Number 30-015- <b>49288</b>	<sup>2</sup> Pool Code 96526	<sup>3</sup> Pool Name Forty-Niner Ridge; Bone Spring West
<sup>4</sup> Property Code <b>317790</b>	<sup>5</sup> Property Name REMUDA NORTH 25 STATE	<sup>6</sup> Well Number 702H
<sup>7</sup> OGRID No. 005380	<sup>8</sup> Operator Name XTO ENERGY, INC.	<sup>9</sup> Elevation 3,070'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	25	23 S	29 E		2,369	SOUTH	2,009	WEST	EDDY

<sup>11</sup> 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
D	24	23 S	29 E		200	NORTH	1,210	WEST	EDDY

<sup>12</sup> Dedicated Acres 240	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

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.

	<p><b>SHL (NAD83 NME)</b></p> <p>Y = 464,036.4 X = 662,825.9 LAT. = 32.275099 °N LONG. = 103.940243 °W</p> <p><b>FTP (NAD83 NME)</b></p> <p>Y = 464,698.7 X = 662,026.8 LAT. = 32.276927 °N LONG. = 103.942821 °W</p> <p><b>CORNER COORDINATES (NAD83 NME)</b></p> <p>A - Y = 464,320.4 N , X = 660,816.8 E B - Y = 466,978.2 N , X = 660,817.0 E C - Y = 469,636.2 N , X = 660,790.3 E D - Y = 472,292.9 N , X = 660,764.6 E E - Y = 464,319.7 N , X = 662,143.0 E F - Y = 466,978.8 N , X = 662,140.6 E G - Y = 469,634.0 N , X = 662,115.2 E H - Y = 472,291.0 N , X = 662,090.3 E</p> <p><b>SHL (NAD27 NME)</b></p> <p>Y = 463,976.5 X = 621,643.1 LAT. = 32.274975 °N LONG. = 103.939752 °W</p> <p><b>FTP (NAD27 NME)</b></p> <p>Y = 464,638.8 X = 620,844.1 LAT. = 32.276804 °N LONG. = 103.942329 °W</p> <p><b>CORNER COORDINATES (NAD27 NME)</b></p> <p>A - Y = 464,260.5 N , X = 619,634.0 E B - Y = 466,918.3 N , X = 619,634.3 E C - Y = 469,576.1 N , X = 619,607.7 E D - Y = 472,232.8 N , X = 619,582.1 E E - Y = 464,259.9 N , X = 620,960.2 E F - Y = 466,918.8 N , X = 620,957.9 E G - Y = 469,574.0 N , X = 620,932.6 E H - Y = 472,230.9 N , X = 620,907.7 E</p>	<p><b>LTP (NAD83 NME)</b></p> <p>Y = 471,961.1 X = 661,977.9 LAT. = 32.296891 °N LONG. = 103.942894 °W</p> <p><b>BHL (NAD83 NME)</b></p> <p>Y = 472,091.1 X = 661,976.6 LAT. = 32.297248 °N LONG. = 103.942896 °W</p> <p><b>LTP (NAD27 NME)</b></p> <p>Y = 471,901.1 X = 620,795.3 LAT. = 32.296767 °N LONG. = 103.942401 °W</p> <p><b>BHL (NAD27 NME)</b></p> <p>Y = 472,031.1 X = 620,794.1 LAT. = 32.297125 °N LONG. = 103.942404 °W</p>
	<p><b>17 OPERATOR CERTIFICATION</b></p> <p>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.</p> <p><i>Cassie Evans</i> 02/07/2022</p> <p>Signature _____ Date _____</p> <p><b>Cassie Evans</b></p> <p>Printed Name _____</p> <p>cassie.evans@exxonmobil.com</p> <p>E-mail Address _____</p>	
<p><b>18 SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>01-31-2022</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: </p> <p>MARK DILLON HARP 23786</p> <p>Certificate Number _____</p>		<p>AW 2021101474</p>

Intent ☒ As Drilled ☐

API #		
Operator Name: XTO ENERGY INC	Property Name: REMUDA NORTH 25 STATE	Well Number 702H

## Kick Off Point (KOP)

UL K	Section 25	Township 23S	Range 29E	Lot	Feet 2369	From N/S South	Feet 2009	From E/W WEST	County EDDY
Latitude 32.275099					Longitude -103.940243			NAD NAD83	

## First Take Point (FTP)

UL E	Section 24	Township 23S	Range 29E	Lot	Feet 2280	From N/S SOUTH	Feet 1210	From E/W WEST	County EDDY
Latitude 32.276927					Longitude -103.942821			NAD NAD83	

## Last Take Point (LTP)

UL D	Section 24	Township 23S	Range 29E	Lot	Feet 330	From N/S North	Feet 1210	From E/W WEST	County EDDY
Latitude 32.296891					Longitude -103.942894			NAD NAD83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ NIs this well an infill well? ☐ Y

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name: XTO ENERGY INC	Property Name:	Well Number

KZ 06/29/2018

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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form APD Comments

Permit 308208

**PERMIT COMMENTS**

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-49288
	Well: REMUDA NORTH 25 STATE #702H

Created By	Comment	Comment Date
cevens	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 NMOCD 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.	2/13/2022

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**Santa Fe, NM 87505**

Form APD Conditions

Permit 308208

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-49288
	Well: REMUDA NORTH 25 STATE #702H

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

**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.

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API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure <sup>ac</sup> psig (MPa)	Pressure Test—High Pressure <sup>ac</sup>	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	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 <sup>bd</sup>	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 <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes <sup>e</sup>	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	

<sup>a</sup> 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.

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

<sup>c</sup> 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.

<sup>d</sup> 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.

<sup>e</sup> 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.

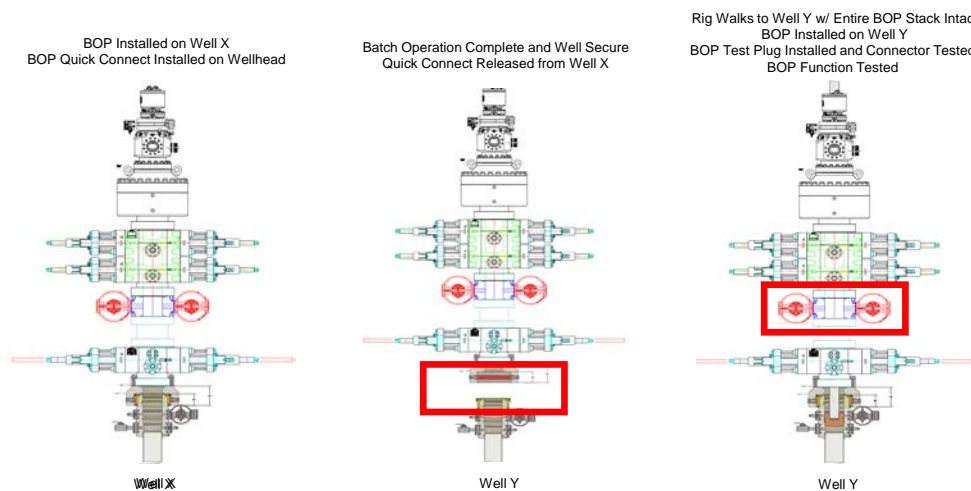
### **Procedures**

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.

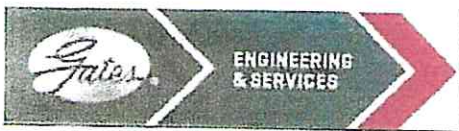
All valves in red including the upper pipe rams will be shut to test the broken connections.

\*\* 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.



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

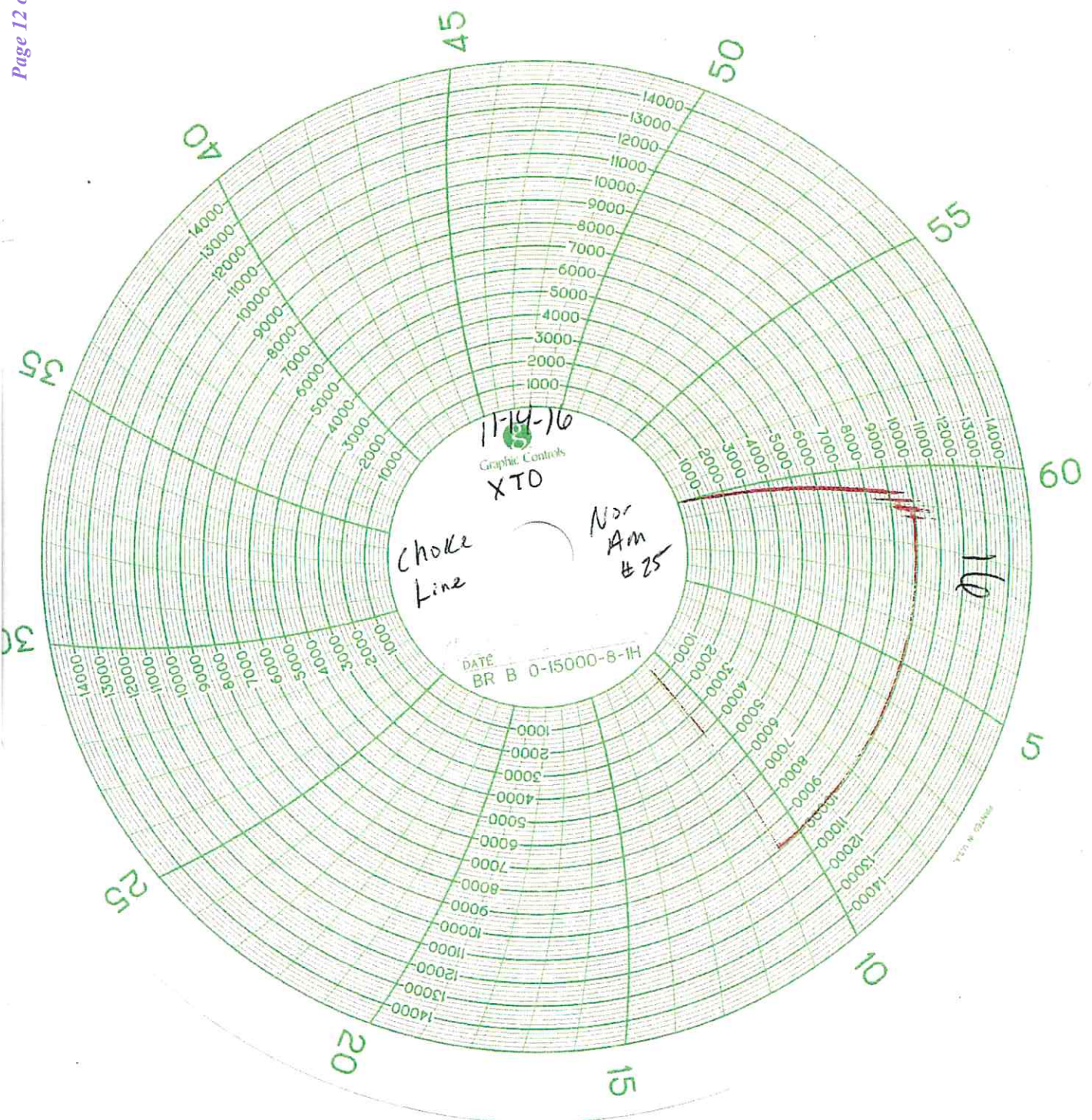
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA
Product Description:	FD3.042.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	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 :	

Form PTC - 01 Rev.0 2









State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description Effective May 25, 2021

**I. Operator:** XTO Energy, Inc. **OGRID:** 05380 **Date:** 02/18/2022

**II. Type:** ☐ Original ☒ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Remuda South 25 State 801H		K-25-23S-29E	2369'FSL & 1949'FWL	1500	2600	1000
Remuda North 25 State 701H		K-25-23S-29E	2369'FSL & 1949'FWL	1500	2600	1000
Remuda North 25 State 702H		K-25-23S-29E	2369'FSL & 2009'FWL	1500	2600	1000
Remuda North 25 State 703H		K-25-23S-29E	2370'FSL & 2090'FWL	1500	2600	1000
Remuda North 25 State 708H		K-25-23S-29E	2369'FSL & 1979' FWL	1500	2600	1000
Remuda North 25 State 705H		E-30-23S-29E	2370'FNL & 600'FWL	1500	2600	1000
Remuda North 25 State 706H		E-30-23S-29E	2370'FNL & 630'FWL	1500	2600	1000
Remuda North 25 State 707H		E-30-23S-29E	2370'FNL & 660'FWL	1500	2600	1000
Remuda North 25 State 708H		E-30-23S-29E	2370'FNL & 690'FWL	1500	2600	1000
Remuda North 25 State 704H		E-30-23S-29E	2370'FNL & 570'FWL	1500	2600	1000

**IV. Central Delivery Point Name:** Remuda 500 TB \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Remuda South 25 State 801H		04/09/2022	04/21/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 701H		04/08/2022	04/20/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 702H		04/11/2022	05/01/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 703H		04/12/2022	05/02/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 708H		04/08/2022	04/20/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 705H		04/05/2022	04/17/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 706H		04/06/2022	04/18/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 707H		04/07/2022	04/19/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 708H		04/08/2022	04/20/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 704H		04/04/2022	04/16/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled

**VI. Separation Equipment:**

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

**VII. Operational Practices:****1. Subsection B.**

- During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

**2. Subsection C.**

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

**3. Subsection D.**

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- 4. Subsection E.
  - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
  - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
  - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- 5. Subsection F.
  - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
  - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

#### **VIII. Best Management Practices:**

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### **X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☐ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☒ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☒ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☒ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.



**I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.**

Signature:
Printed Name: Cassie Evans
Title: Regulatory Analyst
E-mail Address: cassie.evans@exxonmobil.com
Date: 02/18/2022
Phone:432-218-3671
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

### **Cement Variance Request**

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 Brushy Canyon (5733') 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 to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In the event cement is not circulated to surface on the first stage, whether intentionally or unintentionally, 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 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 GE procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

## Well Plan Report - Remuda North 25 State 702H

**Measured Depth:** 17042.00 ft

**TVD RKB:** 9140.00 ft

### Location

**Cartographic Reference System:** New Mexico  
East - NAD  
27

**Northing:** 463937.00 ft

**Easting:** 621643.10 ft

**RKB:** 3095.00 ft

**Ground Level:** 3065.00 ft

**North Reference:** Grid

**Convergence Angle:** 0.21 Deg

**Site:** South Pad 2

**Slot:** 4

Plan Sections		Remuda North 25 State 702H							
Measured Depth	Inclination	Azimuth	TVD RKB	Y Offset	X Offset	Build Rate	Turn Rate	Dogleg Rate	
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	
0	0	0	0	0	0	0	0	0	
2500	0	0	2500	0	0	0	0	0	
3322.23	16.44	268.59	3310.99	-2.88	-117.15	2	0	2	
5280.35	16.44	268.59	5189.01	-16.47	-671.31	0	0	0	
6102.58	0	0	6000	-19.35	-788.46	-2	0	2	
8525.58	0	0	8423	-19.35	-788.46	0	0	0	
9650.58	90	0	9139.2	696.85	-788.46	8	0	8	
17042.73	89.99	359.24	9140	8088.78	-837.34	0	-0.01	0.01	

Position Uncertainty		Remuda North 25 State 702H							
Measured			TVD	Highside	Lateral			Vertical	
Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	
0	0	0	0	0	0	0	0	2.297	
100	0	0	100	0.468	0	0.468	0	2.299	
200	0	0	200	0.983	0	0.983	0	2.307	
300	0	0	300	1.403	0	1.403	0	2.321	
400	0	0	400	1.797	0	1.797	0	2.34	
500	0	0	500	2.179	0	2.179	0	2.364	
600	0	0	600	2.554	0	2.554	0	2.393	
700	0	0	700	2.925	0	2.925	0	2.428	
800	0	0	800	3.292	0	3.292	0	2.467	
900	0	0	900	3.659	0	3.659	0	2.511	
1000	0	0	1000	4.024	0	4.024	0	2.559	
1100	0	0	1100	4.387	0	4.387	0	2.613	
1200	0	0	1200	4.751	0	4.751	0	2.67	
1300	0	0	1300	5.113	0	5.113	0	2.731	
1400	0	0	1400	5.474	0	5.474	0	2.797	
1500	0	0	1500	5.836	0	5.836	0	2.866	
1600	0	0	1600	6.197	0	6.197	0	2.939	
1700	0	0	1700	6.558	0	6.558	0	3.015	
1800	0	0	1800	6.918	0	6.918	0	3.095	
1900	0	0	1900	7.279	0	7.279	0	3.178	
2000	0	0	2000	7.639	0	7.639	0	3.265	
2100	0	0	2100	7.999	0	7.999	0	3.354	
2200	0	0	2200	8.359	0	8.359	0	3.447	

2300	0	0	2300	8.718	0	8.718	0	3.544
2400	0	0	2400	9.079	0	9.079	0	3.643
2500	0	0	2500	9.437	0	9.437	0	3.744
2600	1.999	268.5	2599.98	9.825	0	9.765	0	3.848
2700	4	268.5	2699.838	10.394	0	10.106	0	3.956
2800	6	268.5	2799.452	10.937	0	10.45	0	4.068
2900	7.999	268.5	2898.702	11.452	0	10.792	0	4.186
3000	10	268.5	2997.465	11.938	0	11.133	0	4.31
3100	11.99	268.5	3095.623	12.402	0	11.477	0	4.444
3200	14	268.5	3193.055	12.841	0	11.823	0	4.587
3300	15.99	268.5	3289.643	13.263	0	12.168	0	4.741
3322.2	16.44	268.5	3310.989	13.311	0	12.241	0	4.764
3400	16.44	268.5	3385.577	13.552	0	12.5	0	4.865
3500	16.44	268.5	3481.486	13.867	0	12.848	0	5.001
3600	16.44	268.5	3577.396	14.193	0	13.198	0	5.142
3700	16.44	268.5	3673.305	14.523	0	13.554	0	5.286
3800	16.44	268.5	3769.214	14.856	0	13.908	0	5.435
3900	16.44	268.5	3865.124	15.193	0	14.267	0	5.587
4000	16.44	268.5	3961.033	15.533	0	14.627	0	5.743
4100	16.44	268.5	4056.943	15.876	0	14.989	0	5.902
4200	16.44	268.5	4152.852	16.222	0	15.352	0	6.065
4300	16.44	268.5	4248.761	16.573	0	15.719	0	6.231
4400	16.44	268.5	4344.671	16.926	0	16.085	0	6.399
4500	16.44	268.5	4440.58	17.281	0	16.451	0	6.571
4600	16.44	268.5	4536.489	17.638	0	16.821	0	6.747
4700	16.44	268.5	4632.399	17.998	0	17.192	0	6.925
4800	16.44	268.5	4728.308	18.359	0	17.564	0	7.106
4900	16.44	268.5	4824.218	18.724	0	17.936	0	7.289
5000	16.44	268.5	4920.127	19.09	0	18.309	0	7.475



5100	16.44	268.5	5016.036	19.458	0	18.682	0	7.664
5200	16.44	268.5	5111.946	19.827	0	19.056	0	7.856
5280.3	16.44	268.5	5189.011	20.123	0	19.356	0	8.012
5300	16.05	268.5	5207.874	20.21	0	19.428	0	8.05
5400	14.05	268.5	5304.439	20.697	0	19.796	0	8.253
5500	12.05	268.5	5401.85	21.238	0	20.17	0	8.466
5600	10.05	268.5	5499.991	21.746	0	20.538	0	8.671
5700	8.051	268.5	5598.74	22.222	0	20.904	0	8.87
5800	6.051	268.5	5697.979	22.665	0	21.266	0	9.063
5900	4.051	268.5	5797.586	23.076	0	21.624	0	9.251
6000	2.051	268.5	5897.439	23.452	0	21.976	0	9.437
6102.5	0	0	6000	22.356	0	23.719	0	9.626
6200	0	0	6097.416	22.729	0	24.029	0	9.806
6300	0	0	6197.416	23.069	0	24.347	0	9.992
6400	0	0	6297.416	23.412	0	24.67	0	10.178
6500	0	0	6397.416	23.753	0	24.99	0	10.373
6600	0	0	6497.416	24.096	0	25.314	0	10.569
6700	0	0	6597.416	24.44	0	25.636	0	10.77
6800	0	0	6697.416	24.783	0	25.962	0	10.973
6900	0	0	6797.416	25.128	0	26.287	0	11.18
7000	0	0	6897.416	25.472	0	26.612	0	11.389
7100	0	0	6997.416	25.817	0	26.939	0	11.597
7200	0	0	7097.416	26.163	0	27.267	0	11.815
7300	0	0	7197.416	26.508	0	27.595	0	12.033
7400	0	0	7297.416	26.853	0	27.925	0	12.256
7500	0	0	7397.416	27.199	0	28.256	0	12.478
7600	0	0	7497.416	27.546	0	28.587	0	12.704
7700	0	0	7597.416	27.893	0	28.917	0	12.934
7800	0	0	7697.416	28.24	0	29.249	0	13.168

7900	0	0	7797.416	28.588	0	29.582	0	13.405
8000	0	0	7897.416	28.936	0	29.915	0	13.646
8100	0	0	7997.416	29.283	0	30.249	0	13.889
8200	0	0	8097.416	29.633	0	30.583	0	14.135
8300	0	0	8197.416	29.98	0	30.918	0	14.384
8400	0	0	8297.416	30.33	0	31.254	0	14.636
8500	0	0	8397.416	30.677	0	31.59	0	14.89
8525.5	0	0	8423	30.765	0	31.67	0	14.957
8600	5.953	0	8497.282	31.023	0	31.906	0	15.149
8700	13.95	0	8595.697	31.849	0	32.249	0	15.476
8800	21.95	0	8690.751	32.531	0	32.573	0	15.978
8900	29.95	0	8780.593	32.737	0	32.879	0	16.712
9000	37.95	0	8863.475	32.54	0	33.166	0	17.706
9100	45.95	0	8937.783	32.007	0	33.451	0	18.955
9200	53.95	0	9002.072	31.23	0	33.69	0	20.423
9300	61.95	0	9055.09	30.326	0	33.926	0	22.059
9400	69.95	0	9095.805	29.432	0	34.117	0	23.799
9500	77.95	0	9123.425	28.7	0	34.293	0	25.585
9600	85.95	0	9137.412	28.279	0	34.424	0	27.355
9650.5	90	0	9139.197	27.668	0	34.482	0	27.668
9700	90	0	9139.197	27.783	0	34.54	0	27.783
9800	89.98	359.9	9139.198	27.981	0	34.657	0	27.977
9900	89.98	359.9	9139.198	28.2	0	34.787	0	28.196
10000	89.98	359.9	9139.199	28.437	0	34.916	0	28.432
10100	89.98	359.9	9139.2	28.694	0	35.074	0	28.69
10200	89.98	359.9	9139.202	28.97	0	35.245	0	28.965
10300	89.98	359.9	9139.203	29.265	0	35.429	0	29.261
10400	89.98	359.9	9139.205	29.578	0	35.612	0	29.574
10500	89.98	359.9	9139.208	29.907	0	35.808	0	29.903

10600	89.98	359.9	9139.21	30.254	0	36.031	0	30.251
10700	89.98	359.8	9139.213	30.616	0	36.256	0	30.612
10800	89.98	359.8	9139.217	30.996	0	36.49	0	30.992
10900	89.98	359.8	9139.22	31.388	0	36.736	0	31.385
11000	89.98	359.8	9139.224	31.784	0	36.994	0	31.78
11100	89.98	359.8	9139.228	32.206	0	37.25	0	32.202
11200	89.98	359.8	9139.233	32.653	0	37.531	0	32.65
11300	89.98	359.8	9139.237	33.094	0	37.81	0	33.091
11400	89.98	359.8	9139.242	33.559	0	38.113	0	33.556
11500	89.98	359.8	9139.247	34.033	0	38.414	0	34.029
11600	89.98	359.8	9139.253	34.514	0	38.726	0	34.511
11700	89.98	359.7	9139.259	35.003	0	39.052	0	35
11800	89.98	359.7	9139.265	35.514	0	39.384	0	35.511
11900	89.98	359.7	9139.272	36.031	0	39.725	0	36.028
12000	89.98	359.7	9139.278	36.554	0	40.077	0	36.551
12100	89.98	359.7	9139.285	37.084	0	40.425	0	37.081
12200	89.98	359.7	9139.293	37.633	0	40.795	0	37.63
12300	89.98	359.7	9139.3	38.187	0	41.161	0	38.184
12400	89.98	359.7	9139.308	38.746	0	41.548	0	38.743
12500	89.98	359.7	9139.317	39.309	0	41.932	0	39.306
12600	89.98	359.6	9139.325	39.878	0	42.329	0	39.875
12700	89.98	359.6	9139.334	40.463	0	42.73	0	40.46
12800	89.98	359.6	9139.343	41.051	0	43.138	0	41.049
12900	89.98	359.6	9139.352	41.644	0	43.542	0	41.641
13000	89.98	359.6	9139.362	42.252	0	43.965	0	42.249
13100	89.98	359.6	9139.372	42.851	0	44.385	0	42.849
13200	89.98	359.6	9139.382	43.465	0	44.822	0	43.463
13300	89.98	359.6	9139.393	44.082	0	45.256	0	44.079
13400	89.98	359.6	9139.404	44.713	0	45.696	0	44.71

13500	89.98	359.6	9139.415	45.334	0	46.143	0	45.332
13600	89.98	359.5	9139.426	45.97	0	46.602	0	45.967
13700	89.98	359.5	9139.438	46.607	0	47.062	0	46.605
13800	89.98	359.5	9139.45	47.246	0	47.528	0	47.244
13900	89.98	359.5	9139.463	47.898	0	47.999	0	47.896
14000	89.98	359.5	9139.475	48.551	0	48.466	0	48.549
14100	89.98	359.5	9139.488	49.206	0	48.949	0	49.204
14200	89.98	359.5	9139.501	49.862	0	49.428	0	49.86
14300	89.98	359.5	9139.515	50.519	0	49.911	0	50.517
14400	89.98	359.5	9139.529	51.188	0	50.4	0	51.186
14500	89.98	359.5	9139.543	51.858	0	50.895	0	51.856
14600	89.98	359.4	9139.557	52.528	0	51.4	0	52.526
14700	89.98	359.4	9139.572	53.2	0	51.904	0	53.198
14800	89.98	359.4	9139.587	53.881	0	52.403	0	53.879
14900	89.98	359.4	9139.602	54.564	0	52.916	0	54.562
15000	89.98	359.4	9139.618	55.247	0	53.425	0	55.245
15100	89.98	359.4	9139.634	55.93	0	53.947	0	55.929
15200	89.98	359.4	9139.65	56.615	0	54.464	0	56.613
15300	89.98	359.4	9139.666	57.308	0	54.986	0	57.306
15400	89.98	359.4	9139.683	58.002	0	55.511	0	58
15500	89.98	359.4	9139.7	58.696	0	56.041	0	58.694
15600	89.98	359.3	9139.717	59.399	0	56.581	0	59.397
15700	89.98	359.3	9139.735	60.093	0	57.109	0	60.092
15800	89.98	359.3	9139.753	60.796	0	57.65	0	60.795
15900	89.98	359.3	9139.771	61.508	0	58.186	0	61.506
16000	89.98	359.3	9139.79	62.211	0	58.734	0	62.209
16100	89.98	359.3	9139.808	62.922	0	59.277	0	62.921
16200	89.98	359.3	9139.827	63.625	0	59.823	0	63.624
16300	89.98	359.3	9139.847	64.337	0	60.373	0	64.335

16400	89.98	359.3	9139.866	65.055	0	60.926	0	65.054
16500	89.98	359.2	9139.886	65.766	0	61.481	0	65.765
16600	89.98	359.2	9139.907	66.485	0	62.04	0	66.483
16700	89.98	359.2	9139.927	67.203	0	62.603	0	67.201
16800	89.98	359.2	9139.948	67.921	0	63.16	0	67.919
16900	89.98	359.2	9139.969	68.645	0	63.72	0	68.644
17000	89.98	359.2	9139.991	69.363	0	64.291	0	69.361
17042	89.98	359.2	9140	69.672	0	64.532	0	69.671

<div> <div>Plan Targets</div> <div> Remuda  North 25  State 702H </div> </div>					
Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 7	9651.63	464634.65	620854.64	6045	CIRCLE
LTP 2	16912.51	471895.55	620806.85	6045	CIRCLE
BHL 7	17042.73	472025.78	620805.76	6045	CIRCLE





Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
Bias	of Bias	Error	Error	Azimuth Used
(ft)	(ft)	(ft)	(ft)	(°)
0	0	0	0	0 MWD+IFR1+ MS
0	0	0.556	0.358	135 MWD+IFR1+ MS
0	0	1.191	0.717	135 MWD+IFR1+ MS
0	0	1.668	1.075	135 MWD+IFR1+ MS
0	0	2.099	1.434	135 MWD+IFR1+ MS
0	0	2.507	1.792	135 MWD+IFR1+ MS
0	0	2.902	2.151	135 MWD+IFR1+ MS
0	0	3.288	2.509	135 MWD+IFR1+ MS
0	0	3.669	2.867	135 MWD+IFR1+ MS
0	0	4.046	3.226	135 MWD+IFR1+ MS
0	0	4.42	3.584	135 MWD+IFR1+ MS
0	0	4.791	3.943	135 MWD+IFR1+ MS
0	0	5.161	4.302	135 MWD+IFR1+ MS
0	0	5.529	4.66	135 MWD+IFR1+ MS
0	0	5.896	5.018	135 MWD+IFR1+ MS
0	0	6.262	5.377	135 MWD+IFR1+ MS
0	0	6.627	5.735	135 MWD+IFR1+ MS
0	0	6.992	6.094	135 MWD+IFR1+ MS
0	0	7.355	6.452	135 MWD+IFR1+ MS
0	0	7.719	6.811	135 MWD+IFR1+ MS
0	0	8.081	7.169	135 MWD+IFR1+ MS
0	0	8.444	7.527	135 MWD+IFR1+ MS
0	0	8.806	7.886	135 MWD+IFR1+ MS

0	0	9.168	8.244	135	MWD+IFR1+ MS
0	0	9.53	8.603	135	MWD+IFR1+ MS
0	0	9.891	8.961	135	MWD+IFR1+ MS
0	0	10.211	9.366	-44.272	MWD+IFR1+ MS
0	0	10.622	9.888	-34.089	MWD+IFR1+ MS
0	0	11.08	10.346	-23.332	MWD+IFR1+ MS
0	0	11.57	10.749	-14.57	MWD+IFR1+ MS
0	0	12.07	11.119	-8.447	MWD+IFR1+ MS
0	0	12.572	11.474	-4.266	MWD+IFR1+ MS
0	0	13.066	11.823	-1.341	MWD+IFR1+ MS
0	0	13.554	12.165	0.798	MWD+IFR1+ MS
0	0	13.624	12.239	0.825	MWD+IFR1+ MS
0	0	13.857	12.498	0.938	MWD+IFR1+ MS
0	0	14.161	12.844	1.357	MWD+IFR1+ MS
0	0	14.475	13.193	1.884	MWD+IFR1+ MS
0	0	14.794	13.548	2.416	MWD+IFR1+ MS
0	0	15.116	13.9	2.941	MWD+IFR1+ MS
0	0	15.441	14.257	3.47	MWD+IFR1+ MS
0	0	15.769	14.616	3.999	MWD+IFR1+ MS
0	0	16.1	14.976	4.527	MWD+IFR1+ MS
0	0	16.434	15.337	5.055	MWD+IFR1+ MS
0	0	16.773	15.703	5.579	MWD+IFR1+ MS
0	0	17.114	16.066	6.085	MWD+IFR1+ MS
0	0	17.457	16.43	6.583	MWD+IFR1+ MS
0	0	17.803	16.798	7.097	MWD+IFR1+ MS
0	0	18.15	17.167	7.61	MWD+IFR1+ MS
0	0	18.498	17.536	8.117	MWD+IFR1+ MS
0	0	18.851	17.906	8.596	MWD+IFR1+ MS
0	0	19.206	18.277	9.07	MWD+IFR1+ MS

0	0	19.562	18.648	9.535	MWD+IFR1+ MS
0	0	19.919	19.02	9.995	MWD+IFR1+ MS
0	0	20.204	19.318	10.217	MWD+IFR1+ MS
0	0	20.271	19.391	10.233	MWD+IFR1+ MS
0	0	20.666	19.757	10.317	MWD+IFR1+ MS
0	0	21.143	20.124	10.672	MWD+IFR1+ MS
0	0	21.615	20.484	10.914	MWD+IFR1+ MS
0	0	22.081	20.843	11.111	MWD+IFR1+ MS
0	0	22.542	21.198	11.272	MWD+IFR1+ MS
0	0	22.996	21.549	11.413	MWD+IFR1+ MS
0	0	23.439	21.895	11.547	MWD+IFR1+ MS
0	0	23.791	22.28	12.804	MWD+IFR1+ MS
0	0	24.095	22.659	12.519	MWD+IFR1+ MS
0	0	24.409	23.004	12.275	MWD+IFR1+ MS
0	0	24.728	23.35	12.009	MWD+IFR1+ MS
0	0	25.045	23.695	11.758	MWD+IFR1+ MS
0	0	25.365	24.042	11.487	MWD+IFR1+ MS
0	0	25.684	24.389	11.245	MWD+IFR1+ MS
0	0	26.006	24.736	10.958	MWD+IFR1+ MS
0	0	26.329	25.084	10.693	MWD+IFR1+ MS
0	0	26.651	25.431	10.424	MWD+IFR1+ MS
0	0	26.975	25.779	10.151	MWD+IFR1+ MS
0	0	27.301	26.128	9.874	MWD+IFR1+ MS
0	0	27.627	26.476	9.584	MWD+IFR1+ MS
0	0	27.954	26.823	9.291	MWD+IFR1+ MS
0	0	28.283	27.172	8.986	MWD+IFR1+ MS
0	0	28.611	27.521	8.691	MWD+IFR1+ MS
0	0	28.94	27.869	8.394	MWD+IFR1+ MS
0	0	29.269	28.219	8.092	MWD+IFR1+ MS

0	0	29.601	28.569	7.787	MWD+IFR1+ MS
0	0	29.932	28.919	7.479	MWD+IFR1+ MS
0	0	30.264	29.267	7.153	MWD+IFR1+ MS
0	0	30.596	29.619	6.848	MWD+IFR1+ MS
0	0	30.93	29.967	6.516	MWD+IFR1+ MS
0	0	31.265	30.319	6.191	MWD+IFR1+ MS
0	0	31.599	30.668	5.853	MWD+IFR1+ MS
0	0	31.68	30.755	5.873	MWD+IFR1+ MS
0	0	31.915	31.123	6.189	MWD+IFR1+ MS
0	0	32.452	32.247	83.649	MWD+IFR1+ MS
0	0	33.943	32.571	92.13	MWD+IFR1+ MS
0	0	35.219	32.873	92.828	MWD+IFR1+ MS
0	0	36.286	33.156	93.173	MWD+IFR1+ MS
0	0	37.134	33.437	93.493	MWD+IFR1+ MS
0	0	37.766	33.67	93.83	MWD+IFR1+ MS
0	0	38.206	33.901	94.255	MWD+IFR1+ MS
0	0	38.486	34.085	94.745	MWD+IFR1+ MS
0	0	38.624	34.252	95.36	MWD+IFR1+ MS
0	0	38.684	34.373	96.021	MWD+IFR1+ MS
0	0	38.702	34.426	96.352	MWD+IFR1+ MS
0	0	38.707	34.479	96.714	MWD+IFR1+ MS
0	0	38.731	34.582	97.438	MWD+IFR1+ MS
0	0	38.744	34.697	98.243	MWD+IFR1+ MS
0	0	38.771	34.811	99.054	MWD+IFR1+ MS
0	0	38.801	34.95	99.968	MWD+IFR1+ MS
0	0	38.833	35.1	100.968	MWD+IFR1+ MS
0	0	38.868	35.261	102.071	MWD+IFR1+ MS
0	0	38.905	35.417	103.245	MWD+IFR1+ MS
0	0	38.946	35.583	104.549	MWD+IFR1+ MS

0	0	38.993	35.771	106.069	MWD+IFR1+ MS
0	0	39.044	35.952	107.713	MWD+IFR1+ MS
0	0	39.114	36.14	109.482	MWD+IFR1+ MS
0	0	39.18	36.331	111.558	MWD+IFR1+ MS
0	0	39.255	36.524	113.9	MWD+IFR1+ MS
0	0	39.35	36.709	116.303	MWD+IFR1+ MS
0	0	39.451	36.9	119.208	MWD+IFR1+ MS
0	0	39.574	37.08	122.136	MWD+IFR1+ MS
0	0	39.718	37.262	125.427	MWD+IFR1+ MS
0	0	39.87	37.422	128.897	MWD+IFR1+ MS
0	0	40.051	37.576	132.312	MWD+IFR1+ MS
0	0	40.253	37.718	-44.275	MWD+IFR1+ MS
0	0	40.477	37.849	-40.951	MWD+IFR1+ MS
0	0	40.725	37.967	-37.796	MWD+IFR1+ MS
0	0	40.993	38.073	-34.864	MWD+IFR1+ MS
0	0	41.273	38.165	-32.288	MWD+IFR1+ MS
0	0	41.582	38.261	-29.948	MWD+IFR1+ MS
0	0	41.897	38.336	-27.849	MWD+IFR1+ MS
0	0	42.235	38.408	-25.882	MWD+IFR1+ MS
0	0	42.58	38.483	-24.258	MWD+IFR1+ MS
0	0	42.936	38.543	-22.738	MWD+IFR1+ MS
0	0	43.306	38.608	-21.436	MWD+IFR1+ MS
0	0	43.685	38.661	-20.206	MWD+IFR1+ MS
0	0	44.066	38.719	-19.188	MWD+IFR1+ MS
0	0	44.467	38.777	-18.224	MWD+IFR1+ MS
0	0	44.866	38.821	-17.338	MWD+IFR1+ MS
0	0	45.285	38.875	-16.539	MWD+IFR1+ MS
0	0	45.702	38.927	-15.833	MWD+IFR1+ MS
0	0	46.127	38.978	-15.183	MWD+IFR1+ MS

0	0	46.56	39.027	-14.583	MWD+IFR1+ MS
0	0	47.001	39.076	-14.026	MWD+IFR1+ MS
0	0	47.449	39.123	-13.517	MWD+IFR1+ MS
0	0	47.903	39.182	-13.053	MWD+IFR1+ MS
0	0	48.364	39.229	-12.604	MWD+IFR1+ MS
0	0	48.822	39.274	-12.204	MWD+IFR1+ MS
0	0	49.296	39.331	-11.828	MWD+IFR1+ MS
0	0	49.766	39.375	-11.469	MWD+IFR1+ MS
0	0	50.242	39.43	-11.148	MWD+IFR1+ MS
0	0	50.724	39.486	-10.843	MWD+IFR1+ MS
0	0	51.21	39.529	-10.544	MWD+IFR1+ MS
0	0	51.703	39.583	-10.276	MWD+IFR1+ MS
0	0	52.201	39.637	-10.015	MWD+IFR1+ MS
0	0	52.694	39.691	-9.776	MWD+IFR1+ MS
0	0	53.201	39.744	-9.543	MWD+IFR1+ MS
0	0	53.704	39.797	-9.329	MWD+IFR1+ MS
0	0	54.221	39.851	-9.113	MWD+IFR1+ MS
0	0	54.733	39.903	-8.917	MWD+IFR1+ MS
0	0	55.25	39.956	-8.728	MWD+IFR1+ MS
0	0	55.771	40.02	-8.557	MWD+IFR1+ MS
0	0	56.296	40.072	-8.383	MWD+IFR1+ MS
0	0	56.825	40.124	-8.216	MWD+IFR1+ MS
0	0	57.35	40.187	-8.068	MWD+IFR1+ MS
0	0	57.886	40.239	-7.915	MWD+IFR1+ MS
0	0	58.419	40.302	-7.777	MWD+IFR1+ MS
0	0	58.963	40.365	-7.64	MWD+IFR1+ MS
0	0	59.502	40.416	-7.506	MWD+IFR1+ MS
0	0	60.046	40.479	-7.381	MWD+IFR1+ MS
0	0	60.592	40.541	-7.263	MWD+IFR1+ MS



0	0	61.142	40.604	-7.148	MWD+IFR1+ MS
0	0	61.687	40.666	-7.037	MWD+IFR1+ MS
0	0	62.243	40.728	-6.928	MWD+IFR1+ MS
0	0	62.803	40.79	-6.823	MWD+IFR1+ MS
0	0	63.357	40.851	-6.726	MWD+IFR1+ MS
0	0	63.915	40.925	-6.632	MWD+IFR1+ MS
0	0	64.483	40.986	-6.537	MWD+IFR1+ MS
0	0	64.723	41.011	-6.498	MWD+IFR1+ MS

**DRILLING PLAN: NMOCD COMPLIANCE  
(Supplement to NMOCD 3160-3)**

XTO Energy Inc.  
Remuda North 25 State 702H  
Projected TD: 17043' MD / 9140' TVD  
SHL: 2369' FSL & 2009' FWL , Section 25, T23S, R29E  
BHL: 200' FNL & 1210' FWL , Section 24, T23S, R29E  
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	72'	Water
Top of Salt	420'	Water
Base of Salt	3078'	Water
Delaware	3288'	Water
Brushy Canyon	5733'	Water/Oil/Gas
Bone Spring	6995'	Water
1st Bone Spring Ss	8077'	Water/Oil/Gas
2nd Bone Spring Ss	8871'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>9140'</b>	<b>Water/Oil/Gas</b>

\*\*\* 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 11.75 inch casing @ 395' (25' 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 3178' and cementing to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 17043 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to the Brushy Canyon (estimated TOC 6233 feet) with a secondary bradenhead squeeze after frac operations are complete to 500' inside the intermediate casing shoe (estimated TOC 2678) feet.

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
14.75	0' – 395'	11.75	54	J-55	BTC	New	3.74	11.86	39.85
8.75	0' – 3178'	7.625	29.7	RY P-110	Flush Joint	New	4.56	3.24	5.91
6.75	0' – 3078'	5.5	20	RY P-110	Semi-Premium	New	1.05	8.06	2.62
6.75	3078' - 17043'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.72	2.62

- 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: 13-5/8" 10M top flange x 11-3/4" bottom

B. Tubing Head: 13-5/8" 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 NMOCD Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

#### 4. Cement Program

**Surface Casing: 11.75, 54 New BTC, J-55 casing to be set at +/- 395'**

Tail: 320 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: Surface

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

**Intermediate Casing: 7.625, 29.7 New Flush Joint, RY P-110 casing to be set at +/- 3178'**

Lead: 320 sxs Class C (mixed at 12.9 ppg, 1.65 ft<sup>3</sup>/sx, 10.13 gal/sx water)

Top of Cement: Surface

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

**Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 17043'**

##### 1st Stage

Optional Lead: 60 sxs Class C (mixed at 10.5 ppg, 2 ft<sup>3</sup>/sx, 15.59 gal/sx water)

Top of Cement: 7,526

Tail: 650 sxs Class C (mixed at 14.8 ppg, 1.39 ft<sup>3</sup>/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6233

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

##### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2 ft<sup>3</sup>/sx, 9.61 gal/sx water)

Tail: 170 sxs Class C (mixed at 14.8 ppg, 2 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: 2678

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 5-1/2" production casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (6233') and the second stage performed after frac operations are complete as a bradenhead squeeze with planned cement from the Brushy Canyon to 500' inside the previous casing shoe (2678').

XTO will report the volume of fluid (limited to 5 bbls) used to flush production casing valves following backside cementing procedures.

XTO requests the option to conduct the bradenhead squeeze offline as per standard approval 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.

XTO requests the option to offline cement and remediate (if needed) surface, intermediate, and production 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 11.75 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. MASP should not exceed 2077 psi. In any instance where 10M BOP is required by NMOCD, 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 nipping up on the 11.75, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nipping up on the 7.625, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per NMOCD regulations. The 3M 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 NMOCD 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 NMOCD 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' - 395'	14.75	FW/Native	8.5-9	35-40	NC
395' - 3178'	8.75	Brine	10-10.5	30-32	NC
3178' - 17043'	6.75	OBM	8.6-9.6	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 11-3/4" surface casing with brine solution. A 10.0 ppg - 10.5 ppg 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 11.75 casing.

## 8. Logging, Coring and Testing Program

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

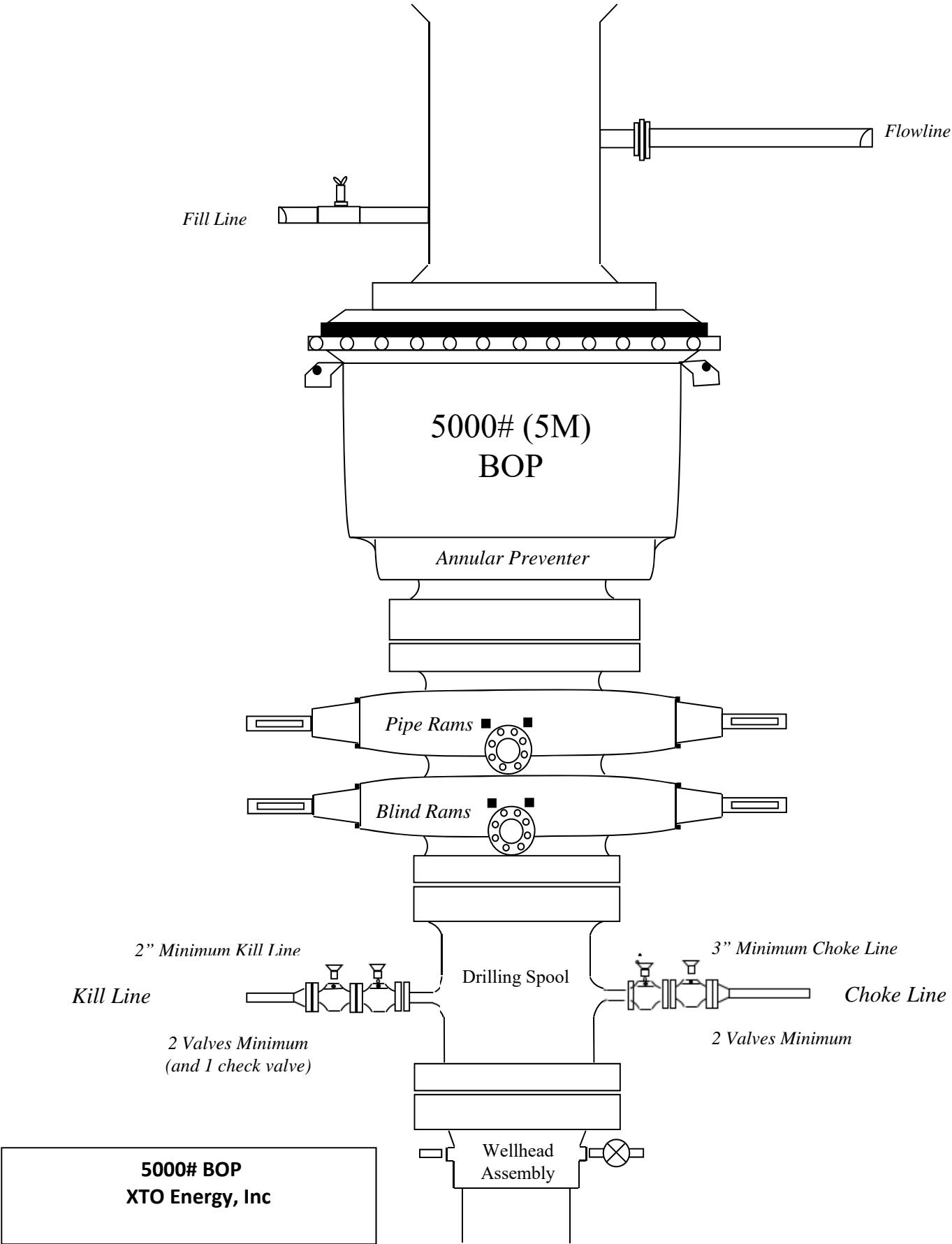
Open hole logging will not be done on this well.

## 9. Abnormal Pressures and Temperatures / Potential Hazards

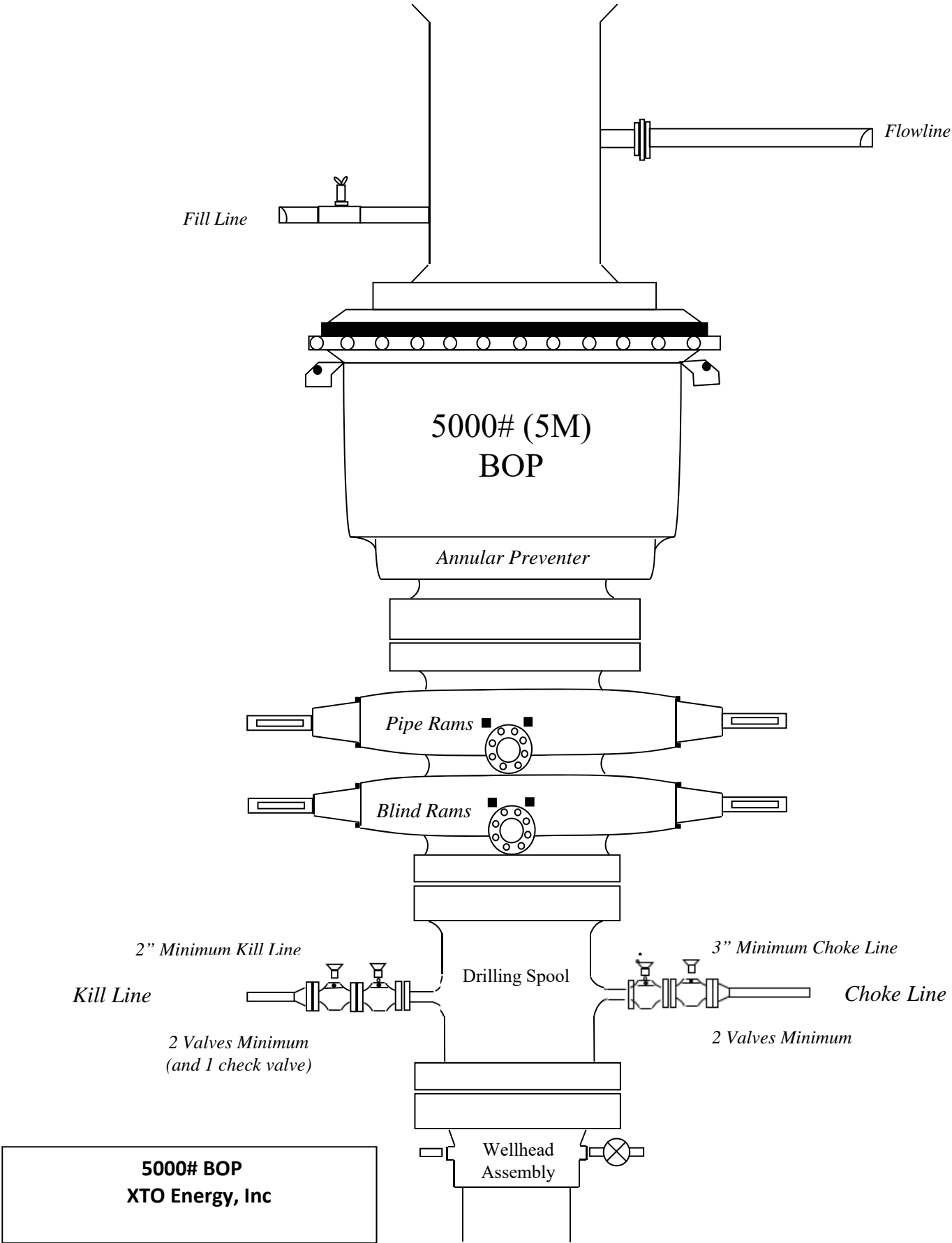
None Anticipated. BHT of 155 to 175 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. 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 4087 psi.

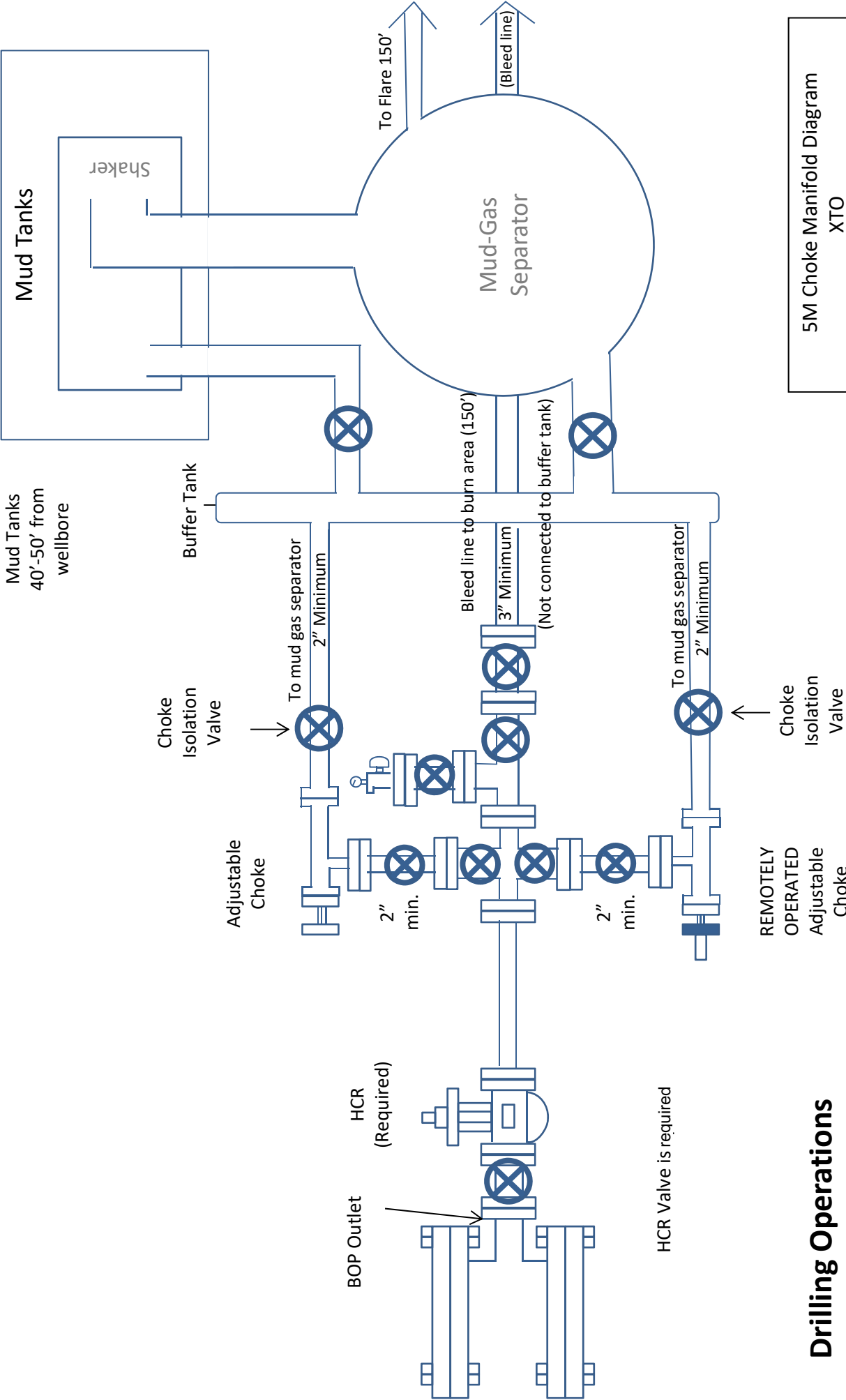
## 10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after NMOCD approval. Move in operations and drilling is expected to take 40 days.









5M Choke Manifold Diagram  
XTO

**Drilling Operations  
Choke Manifold  
5M Service**

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 nipped 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.



## HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN

### Assumed 100 ppm ROE = 3000'

100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

#### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - o Detection of H<sub>2</sub>S, and
  - o Measures for protection against the gas,
  - o Equipment used for protection and emergency response.

#### Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

#### Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

#### Contacting Authorities

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

**CARLSBAD OFFICE – EDDY & LEA COUNTIES**

3104 E. Greene St., Carlsbad, NM 88220  
Carlsbad, NM

575-887-7329

**XTO PERSONNEL:**

Kendall Decker, Drilling Manager	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147

**SHERIFF DEPARTMENTS:**

Eddy County	575-887-7551
Lea County	575-396-3611

**NEW MEXICO STATE POLICE:**

575-392-5588

**FIRE DEPARTMENTS:**

911	
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359

**HOSPITALS:**

911	
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

**AGENT NOTIFICATIONS:****For Lea County:**

Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

**For Eddy County:**

Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283