

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMNM0556863
2. Name of Operator XTO ENERGY INCORPORATED		6. If Indian, Allottee or Tribe Name
Contact: KELLY KARDOS E-Mail: kelly_kardos@xtoenergy.com		7. If Unit or CA/Agreement, Name and/or No. 891014168X
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707	3b. Phone No. (include area code) Ph: 432-620-4374	8. Well Name and No. NASH UNIT 404H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 18 T23S R30E SESW 480FSL 1330FWL		9. API Well No. 30-015-45505-00-X1
		10. Field and Pool or Exploratory Area WILDCAT-WOLFCAMP
		11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO Energy Inc. requests permission to make the following changes to the original APD:

Update casing/cement design per the attached drilling program.

Change the SHL from 430'FSL & 1320'FWL to 480'FSL & 1330'FWL. No surface disturbance.

Accepted 03/25/2020 - KMS NMOCD

Change the BHL from 200'FNL & 990'FEL to 50'FNL & 990'FWL.

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 and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per GE recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both

14. I hereby certify that the foregoing is true and correct. Electronic Submission #502225 verified by the BLM Well Information System For XTO ENERGY INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 02/06/2020 (20PP1137SE)	
Name (Printed/Typed) KELLY KARDOS	Title REGULATORY COORDINATOR
Signature (Electronic Submission)	Date 02/06/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CODY LAYTON	Title ASSIST FIELD MANAGER LANDS MINERALS	Date 02/21/2020
Conditions of approval, if any, are attached. Approval of this notice 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.		Office Carlsbad

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #502225 that would not fit on the form

32. Additional remarks, continued

intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

Nash Unit 206H 30-015-45498

Nash Unit 303H 30-015-45502

Nash Unit 404H 30-015-45505

Revisions to Operator-Submitted EC Data for Sundry Notice #502225

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM0556863	NMNM0556863
Agreement:	NMNM70992X	891014168X (NMNM70992X)
Operator:	XTO ENERGY INC. 6401 HOLIDAY HILL RD BLDG 5 MIDLAND, TX 79707 Ph: 432-620-4374	XTO ENERGY INCORPORATED 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707 Ph: 432.683 2277
Admin Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374
Tech Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374
Location: State: County:	NM EDDY	NM EDDY
Field/Pool:	WILCAT WOLFCAMP	WILDCAT-WOLFCAMP
Well/Facility:	NASH UNIT 404H Sec 18 T23S R30E Mer NMP SESW 430FSL 1320FWL	NASH UNIT 404H Sec 18 T23S R30E SESW 430FSL 1320FWL 32.298916 N Lat, 103.925385 W Lon

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

¹ API Number 30-015	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name NASH UNIT	⁶ Well Number 404H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 3,046'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L4	18	23 S	30 E		480	SOUTH	1,330	WEST	EDDY

¹¹ 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
L4	6	23 S	30 E		50	NORTH	990	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

¹⁶ SEC. 36 T22S R29E LOT 4 SEC. 31 T22S R30E SEC. 32 SEC. 1 SEC. 12 SEC. 13 SEC. 24 SEC. 6 SEC. 7 SEC. 18 SEC. 19 SEC. 20 LOT 4 - 40.91 ACRES LOT 1 - 40.35 ACRES LOT 2 - 40.25 ACRES LOT 3 - 40.15 ACRES LOT 4 - 40.74 ACRES LOT 5 - 40.65 ACRES LOT 6 - 40.42 ACRES LOT 7 - 40.20 ACRES SEC. 7 LOT 1 - 40.15 ACRES LOT 2 - 40.13 ACRES LOT 3 - 40.11 ACRES LOT 4 - 40.09 ACRES SEC. 18 LOT 1 - 40.17 ACRES LOT 2 - 40.20 ACRES LOT 3 - 40.22 ACRES LOT 4 - 40.25 ACRES SEC. 19 LOT 1 - 40.25 ACRES LOT 2 - 40.21 ACRES GRID AZ.=359°44'20" HORIZ. DIST.=15,776.78' GRID AZ.=221°38'15" HORIZ. DIST.=509.45' SHL (NAD83 NME) Y = 472,768.6 X = 667,396.2 LAT. = 32.299055 "N LONG. = 103.925349 "W FTP (NAD83 NME) Y = 472,387.9 X = 667,057.7 LAT. = 32.298012 "N LONG. = 103.926449 "W CORNER COORDINATES (NAD83 NME) A - Y = 472,285.7 N B - Y = 472,288.6 N C - Y = 474,939.3 N D - Y = 474,941.7 N E - Y = 477,594.7 N F - Y = 477,595.8 N G - Y = 480,252.8 N H - Y = 480,252.5 N I - Y = 482,908.2 N J - Y = 482,907.2 N K - Y = 485,559.6 N L - Y = 485,558.9 N M - Y = 488,213.2 N N - Y = 488,215.0 N X = 666,068.1 E X = 667,415.4 E X = 666,057.2 E X = 667,402.0 E X = 666,047.2 E X = 667,389.1 E X = 666,035.0 E X = 667,376.6 E X = 666,021.9 E X = 667,363.6 E X = 666,009.1 E X = 667,365.4 E X = 665,995.5 E X = 667,366.7 E SHL (NAD27 NME) Y = 472,708.5 X = 626,213.6 LAT. = 32.298931 "N LONG. = 103.924856 "W FTP (NAD27 NME) Y = 472,327.8 X = 625,875.1 LAT. = 32.297888 "N LONG. = 103.925957 "W CORNER COORDINATES (NAD27 NME) A - Y = 472,225.6 N B - Y = 472,228.5 N C - Y = 474,879.1 N D - Y = 474,881.5 N E - Y = 477,534.5 N F - Y = 477,535.6 N G - Y = 480,192.5 N H - Y = 480,192.3 N I - Y = 482,847.8 N J - Y = 482,846.9 N K - Y = 485,499.3 N L - Y = 485,498.5 N M - Y = 488,152.8 N N - Y = 488,154.6 N X = 624,885.5 E X = 626,232.8 E X = 624,874.7 E X = 626,219.6 E X = 624,864.9 E X = 626,206.8 E X = 624,852.7 E X = 626,194.3 E X = 624,839.7 E X = 626,181.4 E X = 624,827.0 E X = 626,183.3 E X = 624,813.5 E X = 626,184.7 E	¹⁷ OPERATOR CERTIFICATION 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. Kelly Kardos Signature _____ Date _____ Printed Name _____ E-mail Address _____	¹⁸ SURVEYOR CERTIFICATION 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. 1-17-2020 Date of Survey _____ Signature and Seal of Professional Surveyor: _____ MARK DILLON HARP 23786 Certificate Number _____ JC 2019123820
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Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

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

XTO Energy Inc.

Nash Unit 404H

Projected TD: 26361' MD / 10441' TVD

SHL: 480' FSL & 1330' FWL , Section 18, T23S, R30E

BHL: 50' FNL & 990' FWL , Section 6, T23S, R30E

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	156'	Water
Top of Salt	361'	Water
Base of Salt	3092'	Water
Delaware	3303'	Water
Bell Canyon	3322'	Water/Oil/Gas
Cherry Canyon	4163'	Water/Oil/Gas
Brushy Canyon	5758'	Water/Oil/Gas
Basal Brushy Canyon	6812'	Water/Oil/Gas
Bone Spring Lm.	7051'	Water/Oil/Gas
1st Bone Spring Ss	8052'	Water/Oil/Gas
2nd Bone Spring Ss	8879'	Water/Oil/Gas
3rd Bone Spring Ss.	9978'	Water/Oil/Gas
Wolfcamp Shale	10327'	Water/Oil/Gas
Target/Land Curve	10441'	Water/Oil/Gas

*** 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 18-5/8" inch casing @ 336' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13-3/8" inch casing at 3225' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 9-5/8" inch casing at 9700' and cemented 200' into the 13-3/8 inch casing. A 8-3/4" inch curve and lateral hole will be drilled to MD/TD and 5-1/2 inch casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 9200 feet) per Potash regulations.

Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 336'	18-5/8"	87.5	STC	H-40	New	1.66	4.14	19.01
17-1/2"	0' – 3225'	13-3/8"	68	STC	J-55	New	1.38	1.95	3.08
12-1/4"	0' – 9700'	9-5/8"	40	LTC	HCL-80	New	1.80	1.52	1.87
8-3/4"	0' – 26361'	5-1/2"	17	BTC	P-110	New	1.01	1.36	2.05

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

· 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.

· 13-3/8" Collapse analyzed using 50% evacuation based on regional experience.

· 9-5/8" Collapse analyzed using 33% 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

· Test on 2M Annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

Wellhead:

Temporary Wellhead

· 18-5/8" SOW bottom x 21-1/4" 2M top flange.

· Permanent Wellhead – GE RSH Multibowl System

A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom

B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange

· Wellhead will be installed by manufacturer's representatives.

· Manufacturer will monitor welding process to ensure appropriate temperature of seal.

· Operator will test the 9-5/8" casing per BLM Onshore Order 2

· Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 18-5/8", 87.5 New H-40, STC casing to be set at +/- 336'

Tail: 620 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

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

Top of Cement: Surface

Two additional 1" top out jobs will be attempted after the surface cement job. If the top of cement is not affected by the two top out jobs, ~10-20 ppb gravel will be added on the backside of the 1" to attempt to get cement to surface.

1st Intermediate Casing: 13-3/8", 68 New J-55, STC casing to be set at +/- 3225'

Lead: 2170 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)

Tail: 300 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

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

Top of Cement: Surface

2nd Intermediate Casing: 9-5/8", 40 New HCL-80, LTC casing to be set at +/- 9700'

ECP/DV Tool to be set at 3325'

1st Stage

Lead: 1950 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

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

2nd Stage

Lead: 60 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

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

Top of Cement: 500' inside previous casing shoe

Production Casing: 5-1/2", 17 New P-110, BTC casing to be set at +/- 26361'

Tail: 3450 sxs VersaCem (mixed at 13.2 ppg, 1.61 ft3/sx, 8.38 gal/sx water) Top of Cement: **9200 feet**

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 984 psi.

Once the permanent WH is installed on the 13-3/8" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 3187 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M). Also a variance is requested to test the 5M annular to 70% of working pressure at 3500 psi.

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 13-3/8", 5M bradenhead and flange, the BOP test will be limited to 5M psi. When nipping up on the 9-5/8", the BOP will be tested to a minimum of 5M psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per GE recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 336'	24"	FW/Native	8.4-8.8	35-40	NC
336' - 3225'	17-1/2"	Brine	9.8-10.2	30-32	NC
3225' to 9700'	12-1/4"	FW / Cut Brine	8.7-9.4	30-32	NC
9700' to 26361'	8-3/4"	WBM / OBM	9.8 - 10.1	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 18-5/8" surface casing with brine solution. A 9.8 ppg -10.2 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 13-3/8" 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

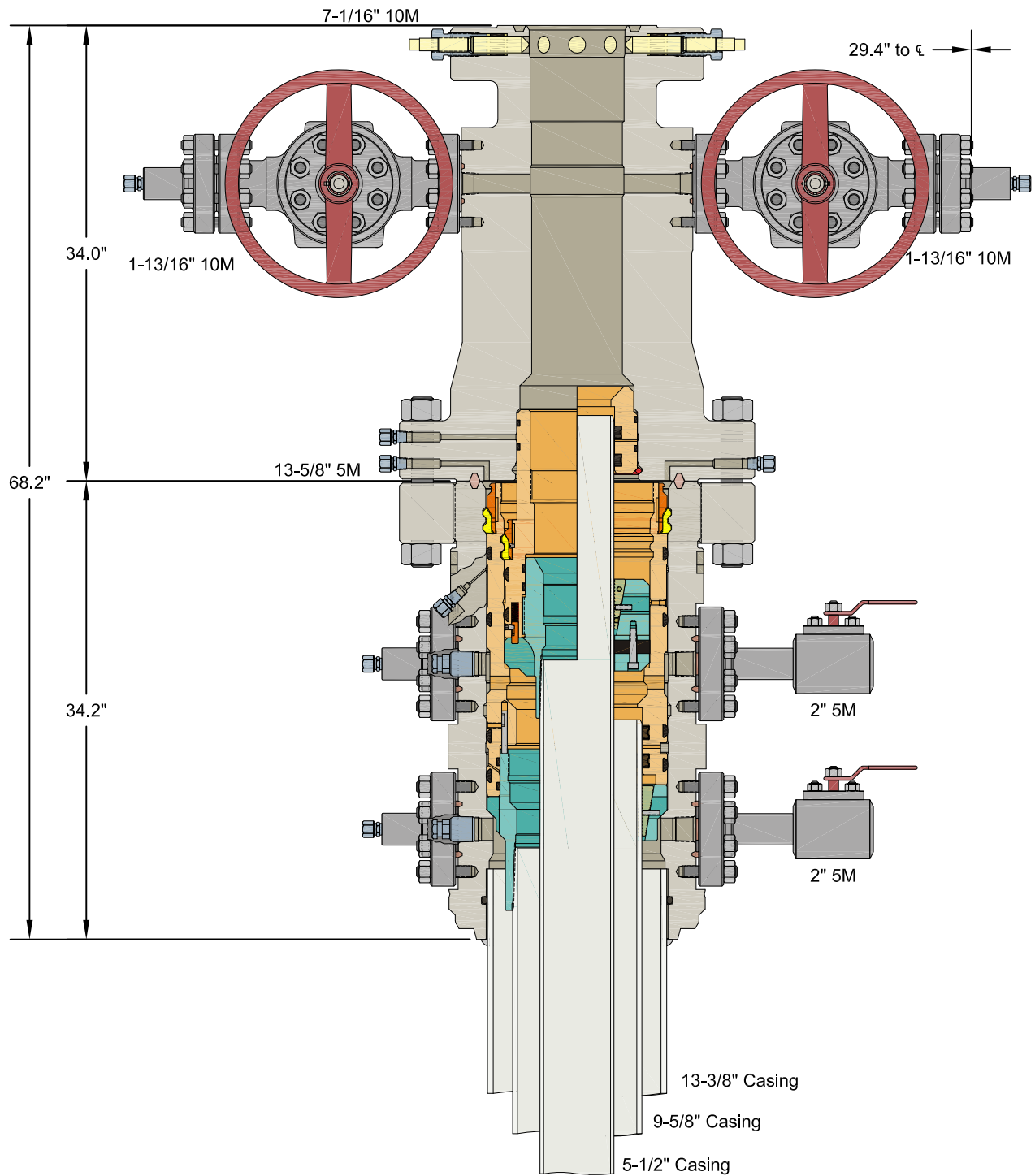
None Anticipated. BHT of 170 to 190 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. 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 5484 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.



GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing, neither it nor its contents may be used, copied, transmitted or reproduced except for the sole purpose of GE Oil & Gas Pressure Control LP.

XTO ENERGY, INC.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead
Assembly, With T-EBS-F Tubing Head

DRAWN

VJK

16FEB17

APPRV

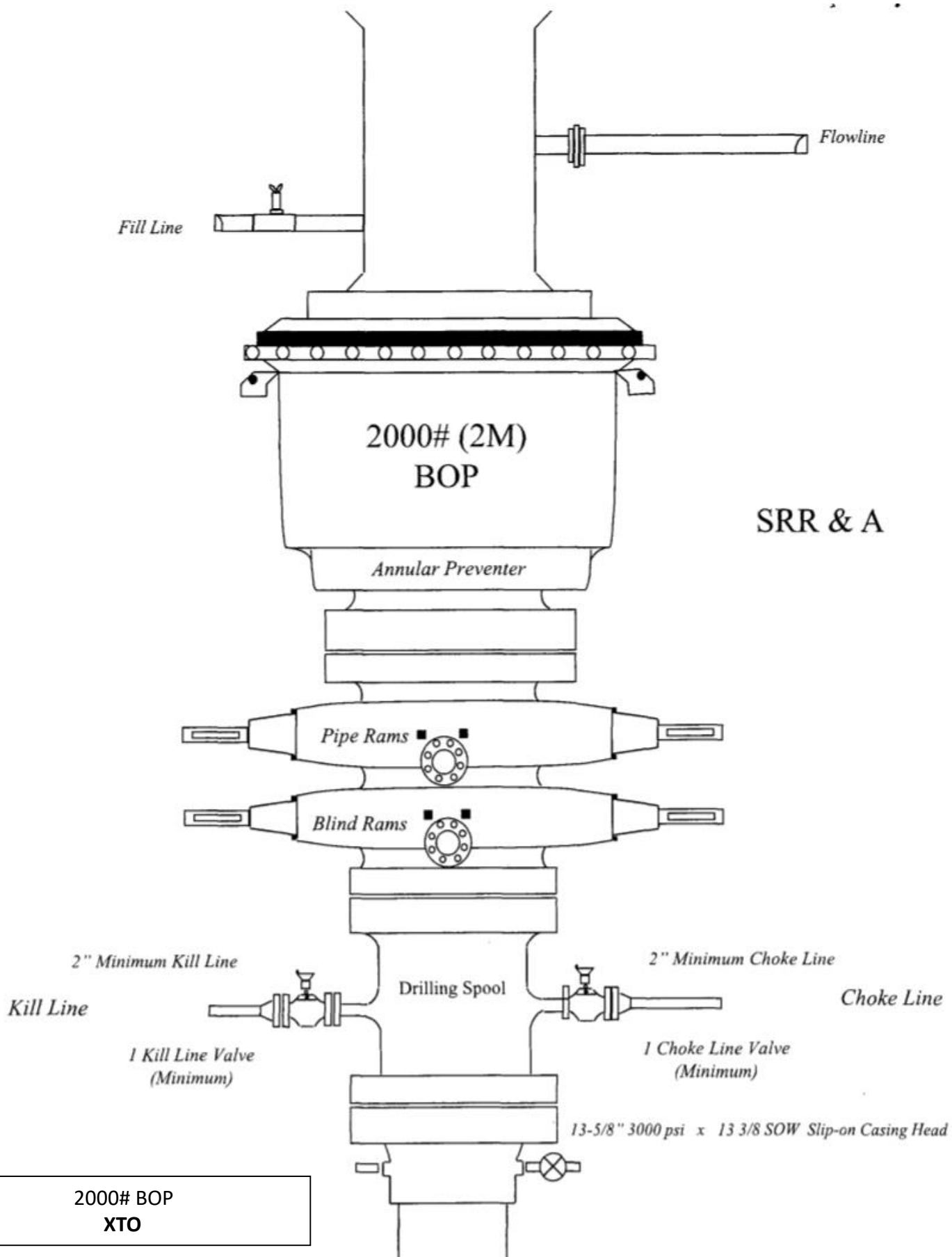
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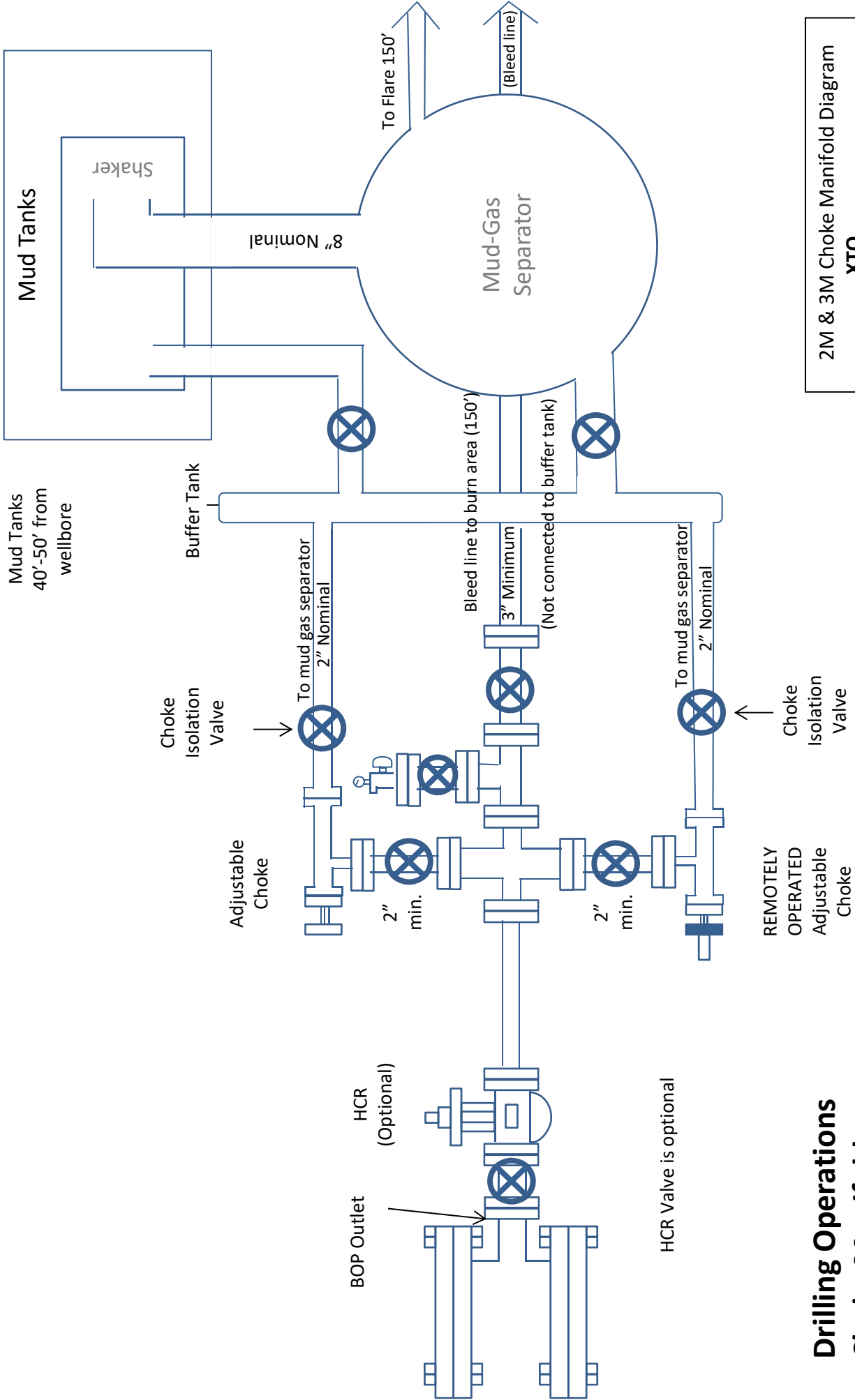
16FEB17

FOR REFERENCE ONLY

DRAWING NO.

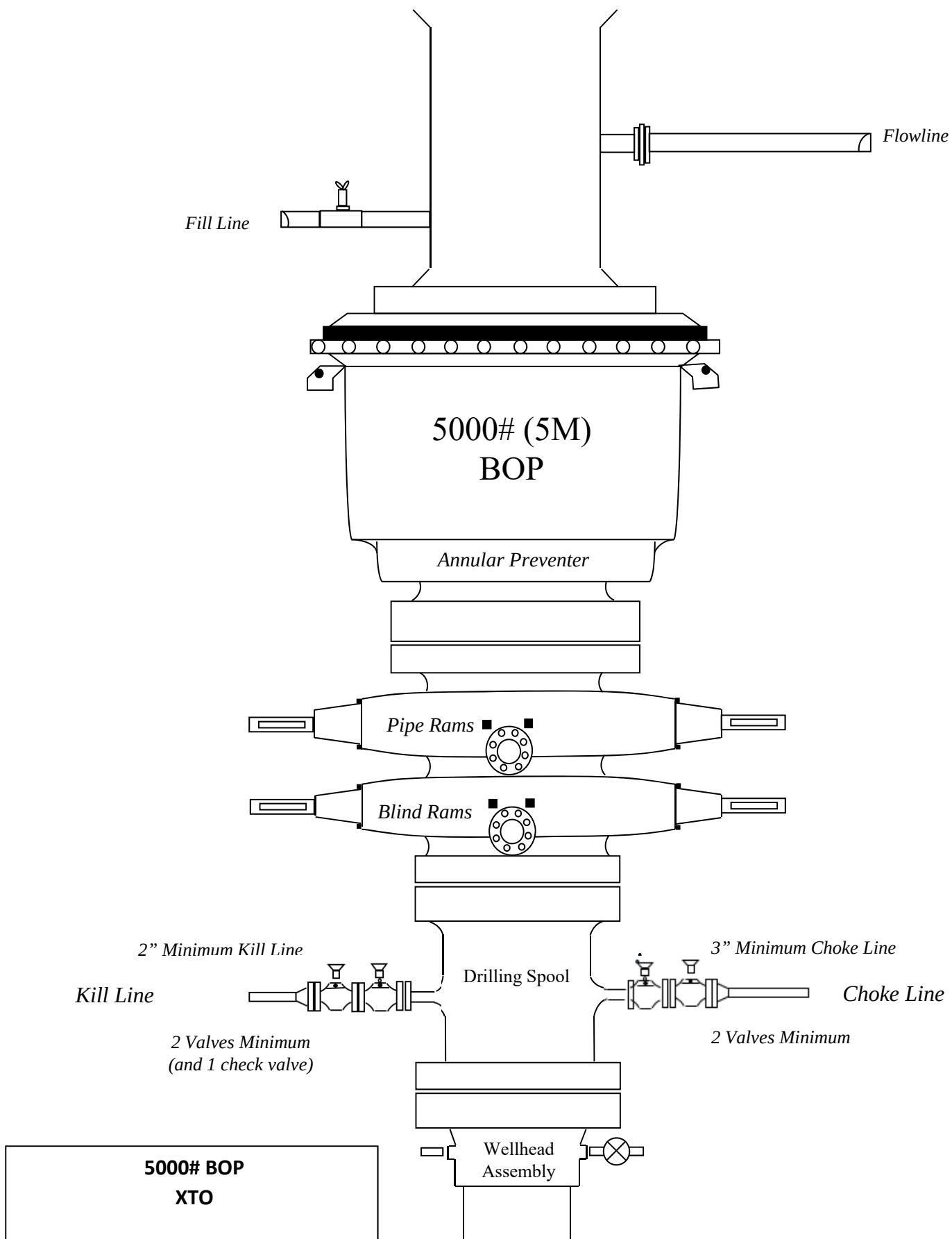
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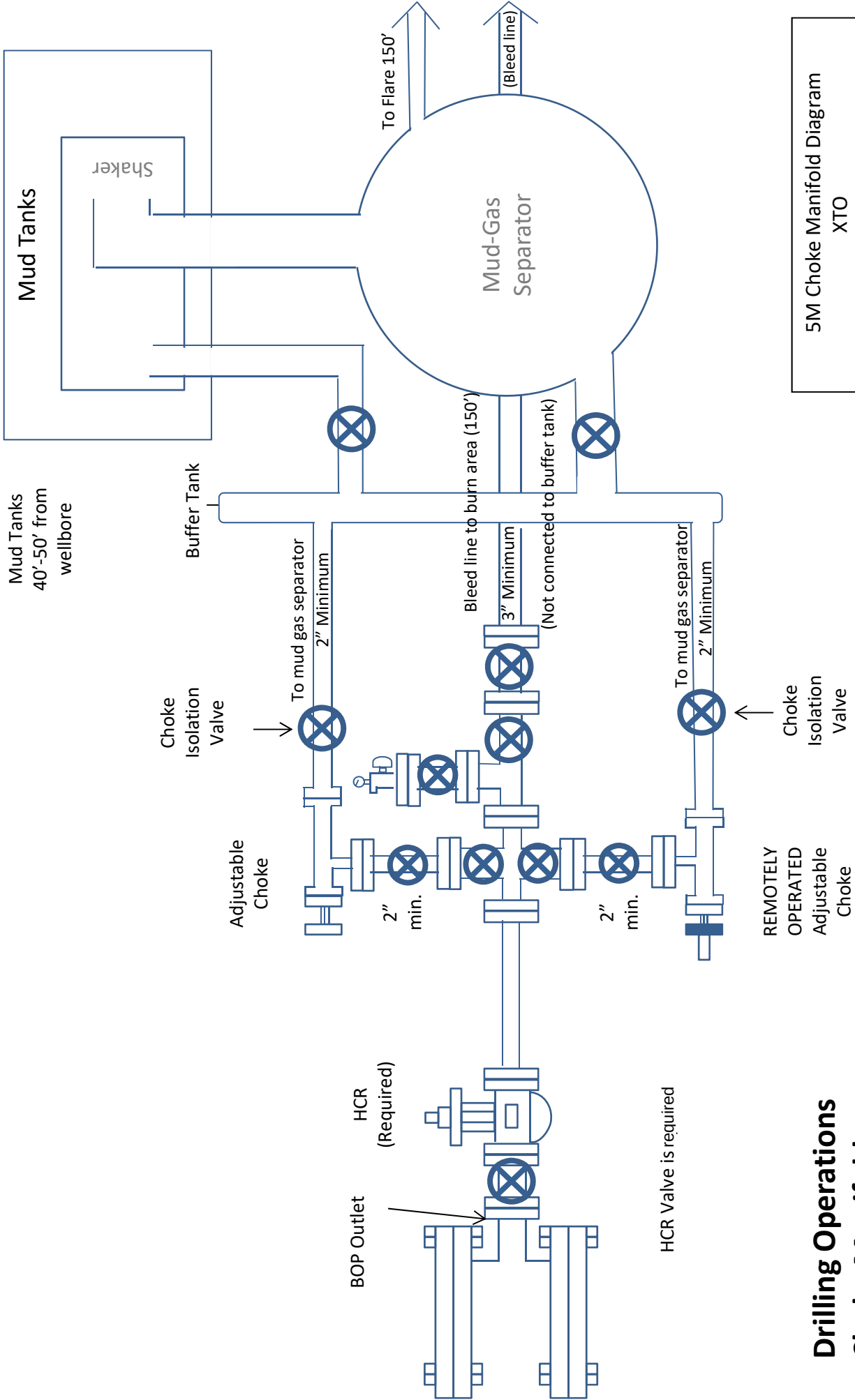




2M & 3M Choke Manifold Diagram
XTO

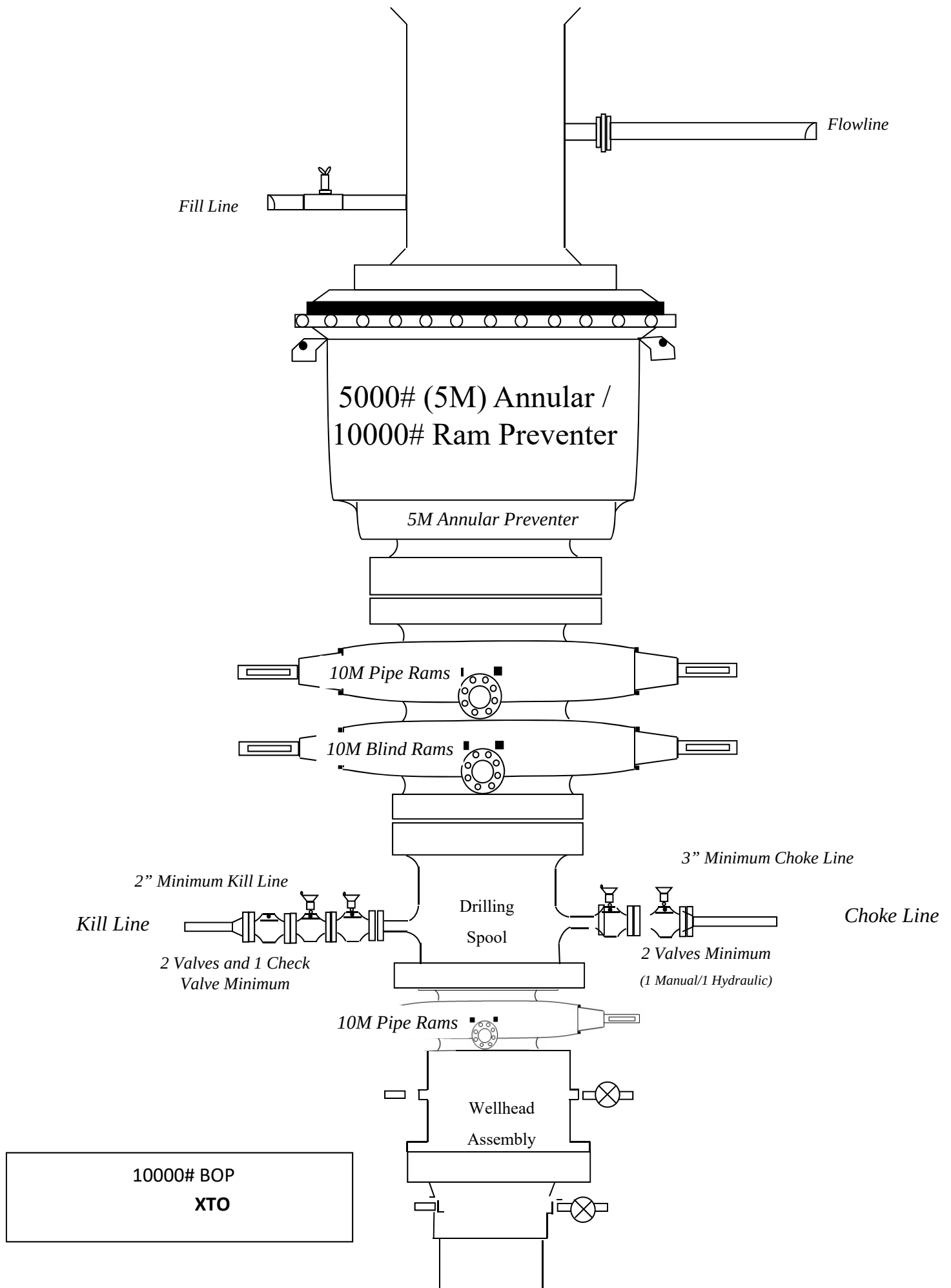
Drilling Operations
Choke Manifold
2M & 3M Service





5M Choke Manifold Diagram
XTO

Drilling Operations Choke Manifold 5M Service



10,000 PSI Annular BOP Variance Request

XTO Energy/XTO Permian Op. request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOPL).

1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

8-1/2" Production Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	-	-
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-
Mud Motor	6.750"-8.000"	Annular	5M	-	-
Production Casing	5-1/2"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

2. Well Control Procedures

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

General Procedure While Drilling

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

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

General Procedure While Tripping

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

General Procedure While Running Production Casing

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

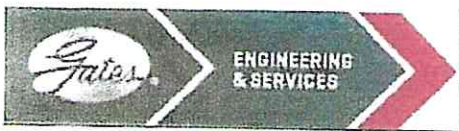
General Procedure With No Pipe In Hole (Open Hole)

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

General Procedures While Pulling BHA Through Stack

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

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



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

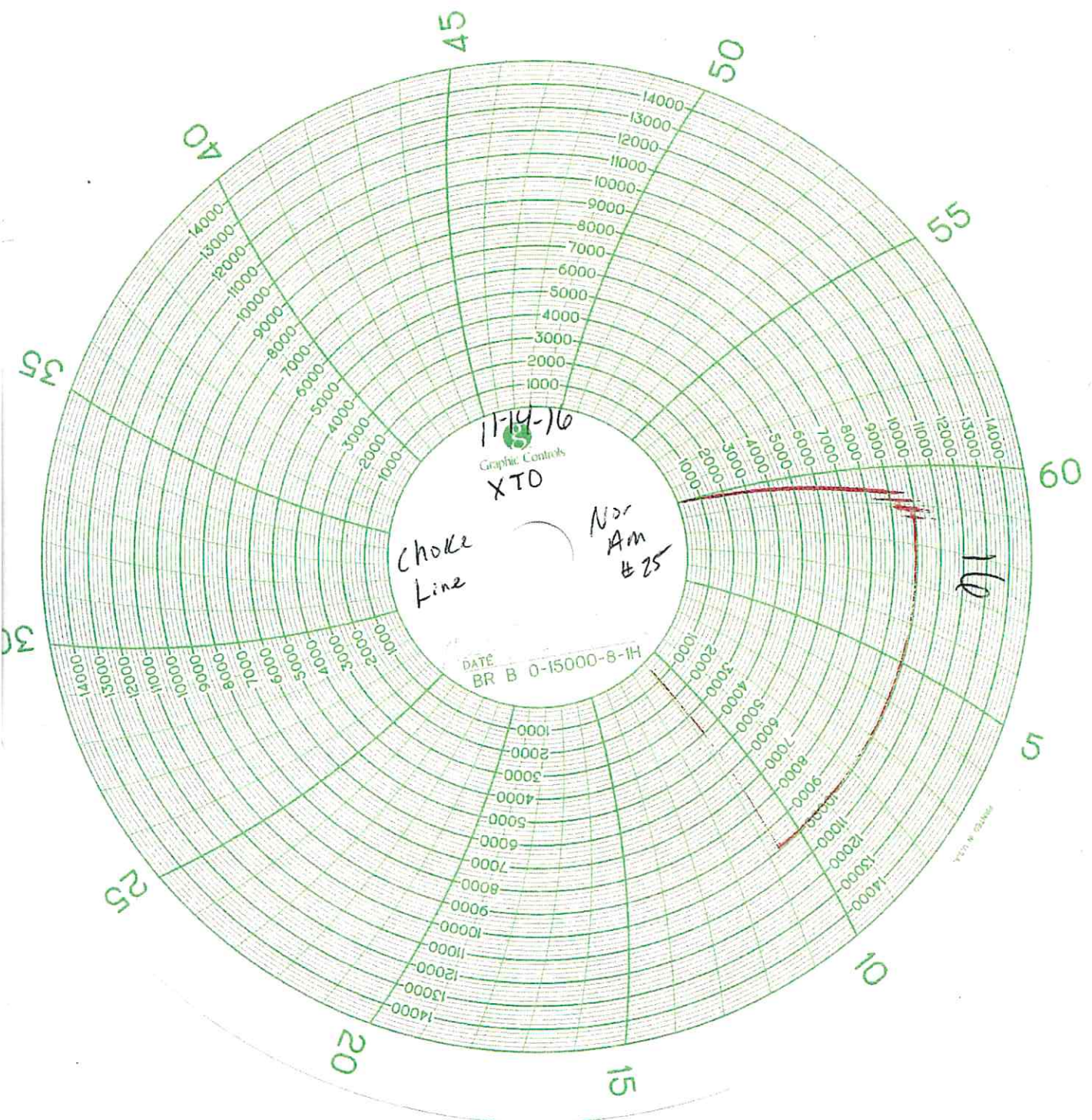
PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe@s@gates.com
WEB: www.gates.com

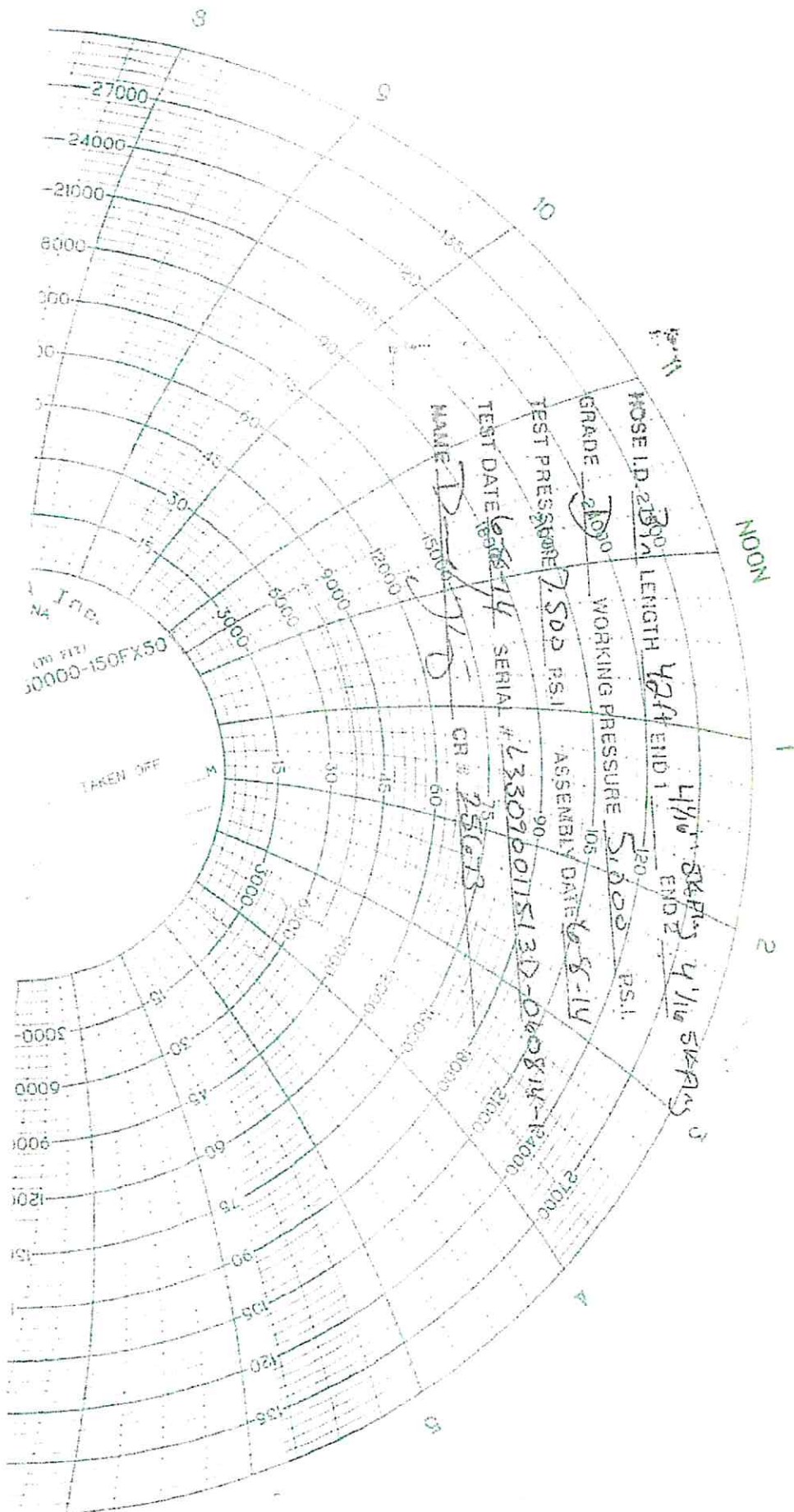
GRADE D PRESSURE TEST CERTIFICATE

Customer :	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 :	







XTO ENERGY, INC.

**Eddy County, NM
Sec 18, T23S, R30E
Nash Unit #404H**

Wellbore #1

Plan: Design #1

QES Well Planning Report

31 January, 2020





QES
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Eddy County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 18, T23S, R30E		
Site Position:		Northing:	472,708.60 usft
From:	Map	Easting:	626,273.50 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 17' 56.151 N
		Longitude:	103° 55' 28.785 W
		Grid Convergence:	0.22 °

Well	Nash Unit #404H		
Well Position	+N/-S	-0.1 usft	Northing: 472,708.50 usft
	+E/-W	-59.9 usft	Easting: 626,213.60 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 17' 56.153 N
			Longitude: 103° 55' 29.483 W
			Ground Level: 3,046.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2019	12/31/2019	6.92	60.02	47,874.60000000

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.47

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,750.0	0.00	0.00	2,750.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,449.6	10.49	205.83	3,445.7	-57.5	-27.8	1.50	1.50	0.00	205.83	
6,860.9	10.49	205.83	6,800.0	-616.7	-298.5	0.00	0.00	0.00	0.00	
7,910.3	0.00	0.00	7,843.5	-703.0	-340.3	1.00	-1.00	0.00	180.00	
9,934.8	0.00	0.00	9,868.0	-703.0	-340.3	0.00	0.00	0.00	0.00	
10,834.8	90.00	0.20	10,441.0	-130.0	-338.3	10.00	10.00	0.00	0.20	
10,858.0	90.00	359.74	10,441.0	-106.8	-338.3	2.00	0.00	-2.00	-90.02	
26,360.6	90.00	359.74	10,441.0	15,395.6	-409.9	0.00	0.00	0.00	0.00	BHL - Nash Unit #4

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anh.									
11.0	0.00	0.00	11.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Rustler Anh.									
156.0	0.00	0.00	156.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado Anh.									
256.0	0.00	0.00	256.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
Est. Top of Salt									
361.0	0.00	0.00	361.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 1.5°/100'									
2,750.0	0.00	0.00	2,750.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.75	205.83	2,800.0	-0.3	-0.1	-0.3	1.50	1.50	0.00
2,900.0	2.25	205.83	2,900.0	-2.7	-1.3	-2.6	1.50	1.50	0.00
3,000.0	3.75	205.83	2,999.8	-7.4	-3.6	-7.3	1.50	1.50	0.00
Base Salt									
3,092.5	5.14	205.83	3,092.0	-13.8	-6.7	-13.6	1.50	1.50	0.00
3,100.0	5.25	205.83	3,099.5	-14.4	-7.0	-14.2	1.50	1.50	0.00
3,200.0	6.75	205.83	3,199.0	-23.8	-11.5	-23.5	1.50	1.50	0.00
3,300.0	8.25	205.83	3,298.1	-35.6	-17.2	-35.1	1.50	1.50	0.00
Lamar Lm.									
3,305.0	8.32	205.83	3,303.0	-36.2	-17.5	-35.7	1.50	1.50	0.00
Bell Canyon Ss									
3,324.2	8.61	205.83	3,322.0	-38.8	-18.8	-38.3	1.50	1.50	0.00
3,400.0	9.75	205.83	3,396.9	-49.7	-24.0	-49.0	1.50	1.50	0.00
EOB @ 10.49° Inc. / 205.83° Azm									
3,449.6	10.49	205.83	3,445.7	-57.5	-27.8	-56.7	1.50	1.50	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,500.0	10.49	205.83	3,495.3	-65.8	-31.8	-64.9	0.00	0.00	0.00
3,600.0	10.49	205.83	3,593.6	-82.2	-39.8	-81.1	0.00	0.00	0.00
3,700.0	10.49	205.83	3,691.9	-98.6	-47.7	-97.3	0.00	0.00	0.00
3,800.0	10.49	205.83	3,790.2	-114.9	-55.6	-113.4	0.00	0.00	0.00
3,900.0	10.49	205.83	3,888.6	-131.3	-63.6	-129.6	0.00	0.00	0.00
4,000.0	10.49	205.83	3,986.9	-147.7	-71.5	-145.8	0.00	0.00	0.00
4,100.0	10.49	205.83	4,085.2	-164.1	-79.4	-162.0	0.00	0.00	0.00
Cherry Canyon Ss									
4,179.1	10.49	205.83	4,163.0	-177.1	-85.7	-174.8	0.00	0.00	0.00
4,200.0	10.49	205.83	4,183.5	-180.5	-87.4	-178.1	0.00	0.00	0.00
4,300.0	10.49	205.83	4,281.9	-196.9	-95.3	-194.3	0.00	0.00	0.00
Base Manzanita Sh									
4,353.0	10.49	205.83	4,334.0	-205.6	-99.5	-202.9	0.00	0.00	0.00
4,400.0	10.49	205.83	4,380.2	-213.3	-103.3	-210.5	0.00	0.00	0.00
4,500.0	10.49	205.83	4,478.5	-229.7	-111.2	-226.7	0.00	0.00	0.00
4,600.0	10.49	205.83	4,576.9	-246.1	-119.1	-242.8	0.00	0.00	0.00
4,700.0	10.49	205.83	4,675.2	-262.5	-127.1	-259.0	0.00	0.00	0.00
4,800.0	10.49	205.83	4,773.5	-278.9	-135.0	-275.2	0.00	0.00	0.00
4,900.0	10.49	205.83	4,871.8	-295.3	-142.9	-291.4	0.00	0.00	0.00
5,000.0	10.49	205.83	4,970.2	-311.7	-150.9	-307.5	0.00	0.00	0.00
5,100.0	10.49	205.83	5,068.5	-328.1	-158.8	-323.7	0.00	0.00	0.00
5,200.0	10.49	205.83	5,166.8	-344.5	-166.7	-339.9	0.00	0.00	0.00
5,300.0	10.49	205.83	5,265.1	-360.9	-174.7	-356.1	0.00	0.00	0.00
5,400.0	10.49	205.83	5,363.5	-377.2	-182.6	-372.3	0.00	0.00	0.00
5,500.0	10.49	205.83	5,461.8	-393.6	-190.5	-388.4	0.00	0.00	0.00
5,600.0	10.49	205.83	5,560.1	-410.0	-198.5	-404.6	0.00	0.00	0.00
5,700.0	10.49	205.83	5,658.5	-426.4	-206.4	-420.8	0.00	0.00	0.00
5,800.0	10.49	205.83	5,756.8	-442.8	-214.4	-437.0	0.00	0.00	0.00
Brushy Canyon Ss									
5,801.2	10.49	205.83	5,758.0	-443.0	-214.5	-437.2	0.00	0.00	0.00
5,900.0	10.49	205.83	5,855.1	-459.2	-222.3	-453.1	0.00	0.00	0.00
6,000.0	10.49	205.83	5,953.4	-475.6	-230.2	-469.3	0.00	0.00	0.00
6,100.0	10.49	205.83	6,051.8	-492.0	-238.2	-485.5	0.00	0.00	0.00
6,200.0	10.49	205.83	6,150.1	-508.4	-246.1	-501.7	0.00	0.00	0.00
6,300.0	10.49	205.83	6,248.4	-524.8	-254.0	-517.8	0.00	0.00	0.00
6,400.0	10.49	205.83	6,346.7	-541.2	-262.0	-534.0	0.00	0.00	0.00
6,500.0	10.49	205.83	6,445.1	-557.6	-269.9	-550.2	0.00	0.00	0.00
6,600.0	10.49	205.83	6,543.4	-574.0	-277.8	-566.4	0.00	0.00	0.00
6,700.0	10.49	205.83	6,641.7	-590.4	-285.8	-582.5	0.00	0.00	0.00
6,800.0	10.49	205.83	6,740.1	-606.8	-293.7	-598.7	0.00	0.00	0.00
Drop 1°/100'									
6,860.9	10.49	205.83	6,800.0	-616.7	-298.5	-608.6	0.00	0.00	0.00
Basal Brushy Canyon Ss									
6,873.2	10.37	205.83	6,812.0	-618.7	-299.5	-610.5	1.00	-1.00	0.00
6,900.0	10.10	205.83	6,838.4	-623.0	-301.6	-614.8	1.00	-1.00	0.00
7,000.0	9.10	205.83	6,937.0	-638.0	-308.9	-629.6	1.00	-1.00	0.00
7,100.0	8.10	205.83	7,035.9	-651.5	-315.4	-642.9	1.00	-1.00	0.00
Bone Spring Lm									
7,115.3	7.95	205.83	7,051.0	-653.4	-316.3	-644.8	1.00	-1.00	0.00
7,200.0	7.10	205.83	7,135.0	-663.4	-321.1	-654.6	1.00	-1.00	0.00
Avalon Ss									
7,235.3	6.75	205.83	7,170.0	-667.2	-323.0	-658.4	1.00	-1.00	0.00
7,300.0	6.10	205.83	7,234.3	-673.8	-326.2	-664.9	1.00	-1.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Bone Spr Up Avalon Lm									
7,306.7	6.04	205.83	7,241.0	-674.4	-326.5	-665.5	1.00	-1.00	0.00
7,400.0	5.10	205.83	7,333.9	-682.6	-330.4	-673.5	1.00	-1.00	0.00
Bone Spr Up Avalon Sh									
7,456.3	4.54	205.83	7,390.0	-686.8	-332.5	-677.7	1.00	-1.00	0.00
7,500.0	4.10	205.83	7,433.5	-689.8	-333.9	-680.7	1.00	-1.00	0.00
Bone Spg Low Avalon Lm									
7,586.6	3.24	205.83	7,520.0	-694.8	-336.3	-685.6	1.00	-1.00	0.00
7,600.0	3.10	205.83	7,533.3	-695.4	-336.6	-686.2	1.00	-1.00	0.00
7,700.0	2.10	205.83	7,633.2	-699.5	-338.6	-690.3	1.00	-1.00	0.00
Bone Spg Low Avalon Sh									
7,798.8	1.12	205.83	7,732.0	-702.0	-339.8	-692.7	1.00	-1.00	0.00
7,800.0	1.10	205.83	7,733.2	-702.0	-339.8	-692.8	1.00	-1.00	0.00
7,900.0	0.10	205.83	7,833.2	-703.0	-340.3	-693.7	1.00	-1.00	0.00
EOD @ Vert.									
7,910.3	0.00	0.00	7,843.5	-703.0	-340.3	-693.7	1.00	-1.00	0.00
8,000.0	0.00	0.00	7,933.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,033.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
First Bone Spring Ss									
8,118.8	0.00	0.00	8,052.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,133.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,233.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,333.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
Second Bone Spring Lm									
8,459.8	0.00	0.00	8,393.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,433.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,533.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,633.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,733.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,833.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
Second Bone Spring Ss									
8,945.8	0.00	0.00	8,879.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
Second Bone Spring A Ss									
8,985.8	0.00	0.00	8,919.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,933.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
Second Bone Spring A/B Carb									
9,050.8	0.00	0.00	8,984.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,033.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
Second Bone Spring B Ss									
9,129.8	0.00	0.00	9,063.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,133.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
Third Bone Spring Lm									
9,284.8	0.00	0.00	9,218.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,233.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,333.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,433.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,533.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,633.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,733.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,833.2	-703.0	-340.3	-693.7	0.00	0.00	0.00
Build 10°/100'									
9,934.8	0.00	0.00	9,868.0	-703.0	-340.3	-693.7	0.00	0.00	0.00
9,950.0	1.52	0.20	9,883.2	-702.8	-340.3	-693.5	10.00	10.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.0	6.52	0.20	9,933.0	-699.3	-340.3	-690.0	10.00	10.00	0.00
Third Bone Spring Ss									
10,045.5	11.07	0.20	9,978.0	-692.3	-340.3	-683.0	10.00	10.00	0.00
10,050.0	11.52	0.20	9,982.4	-691.5	-340.3	-682.2	10.00	10.00	0.00
10,100.0	16.52	0.20	10,030.9	-679.4	-340.2	-670.1	10.00	10.00	0.00
10,150.0	21.52	0.20	10,078.2	-663.1	-340.2	-653.8	10.00	10.00	0.00
10,200.0	26.52	0.20	10,123.8	-642.7	-340.1	-633.4	10.00	10.00	0.00
10,250.0	31.52	0.20	10,167.5	-618.5	-340.0	-609.2	10.00	10.00	0.00
Third Bone Spring Ss War Wink									
10,276.8	34.19	0.20	10,190.0	-604.0	-340.0	-594.7	10.00	10.00	0.00
10,300.0	36.52	0.20	10,209.0	-590.5	-339.9	-581.3	10.00	10.00	0.00
10,350.0	41.52	0.20	10,247.8	-559.0	-339.8	-549.8	10.00	10.00	0.00
Third Bone Spring Ss Red Hills									
10,397.5	46.27	0.20	10,282.0	-526.1	-339.7	-516.9	10.00	10.00	0.00
10,400.0	46.52	0.20	10,283.7	-524.3	-339.7	-515.1	10.00	10.00	0.00
10,450.0	51.52	0.20	10,316.5	-486.6	-339.5	-477.4	10.00	10.00	0.00
Wolfcamp Shale									
10,467.2	53.24	0.20	10,327.0	-473.0	-339.5	-463.8	10.00	10.00	0.00
10,500.0	56.52	0.20	10,345.9	-446.1	-339.4	-436.9	10.00	10.00	0.00
10,550.0	61.52	0.20	10,371.6	-403.3	-339.3	-394.1	10.00	10.00	0.00
Wolfcamp X Ss									
10,559.3	62.45	0.20	10,376.0	-395.0	-339.2	-385.9	10.00	10.00	0.00
10,600.0	66.52	0.20	10,393.5	-358.3	-339.1	-349.2	10.00	10.00	0.00
10,650.0	71.52	0.20	10,411.4	-311.7	-338.9	-302.5	10.00	10.00	0.00
Wolfcamp Y Ss									
10,683.1	74.83	0.20	10,421.0	-280.0	-338.8	-270.8	10.00	10.00	0.00
10,700.0	76.52	0.20	10,425.2	-263.6	-338.8	-254.5	10.00	10.00	0.00
10,750.0	81.52	0.20	10,434.7	-214.6	-338.6	-205.5	10.00	10.00	0.00
10,800.0	86.52	0.20	10,439.9	-164.8	-338.4	-155.8	10.00	10.00	0.00
EOB @ 90.00° Inc. / 0.20° Azm / Turn 2°/100'									
10,834.8	90.00	0.20	10,441.0	-130.0	-338.3	-121.0	10.00	10.00	0.00
EOT @ 90.00° Inc. / 359.74° Azm									
10,858.0	90.00	359.74	10,441.0	-106.8	-338.3	-97.8	2.00	0.00	-2.00
10,900.0	90.00	359.74	10,441.0	-64.9	-338.5	-55.8	0.00	0.00	0.00
11,000.0	90.00	359.74	10,441.0	35.1	-339.0	44.1	0.00	0.00	0.00
11,100.0	90.00	359.74	10,441.0	135.1	-339.4	144.1	0.00	0.00	0.00
11,200.0	90.00	359.74	10,441.0	235.1	-339.9	244.1	0.00	0.00	0.00
11,300.0	90.00	359.74	10,441.0	335.1	-340.4	344.1	0.00	0.00	0.00
11,400.0	90.00	359.74	10,441.0	435.1	-340.8	444.0	0.00	0.00	0.00
11,500.0	90.00	359.74	10,441.0	535.1	-341.3	544.0	0.00	0.00	0.00
11,600.0	90.00	359.74	10,441.0	635.1	-341.7	644.0	0.00	0.00	0.00
11,700.0	90.00	359.74	10,441.0	735.1	-342.2	744.0	0.00	0.00	0.00
11,800.0	90.00	359.74	10,441.0	835.1	-342.7	843.9	0.00	0.00	0.00
11,900.0	90.00	359.74	10,441.0	935.1	-343.1	943.9	0.00	0.00	0.00
12,000.0	90.00	359.74	10,441.0	1,035.1	-343.6	1,043.9	0.00	0.00	0.00
12,100.0	90.00	359.74	10,441.0	1,135.1	-344.0	1,143.9	0.00	0.00	0.00
12,200.0	90.00	359.74	10,441.0	1,235.1	-344.5	1,243.9	0.00	0.00	0.00
12,300.0	90.00	359.74	10,441.0	1,335.1	-345.0	1,343.8	0.00	0.00	0.00
12,400.0	90.00	359.74	10,441.0	1,435.1	-345.4	1,443.8	0.00	0.00	0.00
12,500.0	90.00	359.74	10,441.0	1,535.1	-345.9	1,543.8	0.00	0.00	0.00
12,600.0	90.00	359.74	10,441.0	1,635.1	-346.4	1,643.8	0.00	0.00	0.00
12,700.0	90.00	359.74	10,441.0	1,735.1	-346.8	1,743.7	0.00	0.00	0.00
12,800.0	90.00	359.74	10,441.0	1,835.1	-347.3	1,843.7	0.00	0.00	0.00



QES
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,900.0	90.00	359.74	10,441.0	1,935.1	-347.7	1,943.7	0.00	0.00	0.00
13,000.0	90.00	359.74	10,441.0	2,035.1	-348.2	2,043.7	0.00	0.00	0.00
13,100.0	90.00	359.74	10,441.0	2,135.1	-348.7	2,143.6	0.00	0.00	0.00
13,200.0	90.00	359.74	10,441.0	2,235.1	-349.1	2,243.6	0.00	0.00	0.00
13,300.0	90.00	359.74	10,441.0	2,335.1	-349.6	2,343.6	0.00	0.00	0.00
13,400.0	90.00	359.74	10,441.0	2,435.1	-350.1	2,443.6	0.00	0.00	0.00
13,500.0	90.00	359.74	10,441.0	2,535.1	-350.5	2,543.5	0.00	0.00	0.00
13,600.0	90.00	359.74	10,441.0	2,635.1	-351.0	2,643.5	0.00	0.00	0.00
13,700.0	90.00	359.74	10,441.0	2,735.1	-351.4	2,743.5	0.00	0.00	0.00
13,800.0	90.00	359.74	10,441.0	2,835.1	-351.9	2,843.5	0.00	0.00	0.00
13,900.0	90.00	359.74	10,441.0	2,935.1	-352.4	2,943.4	0.00	0.00	0.00
14,000.0	90.00	359.74	10,441.0	3,035.1	-352.8	3,043.4	0.00	0.00	0.00
14,100.0	90.00	359.74	10,441.0	3,135.1	-353.3	3,143.4	0.00	0.00	0.00
14,200.0	90.00	359.74	10,441.0	3,235.1	-353.7	3,243.4	0.00	0.00	0.00
14,300.0	90.00	359.74	10,441.0	3,335.1	-354.2	3,343.3	0.00	0.00	0.00
14,400.0	90.00	359.74	10,441.0	3,435.1	-354.7	3,443.3	0.00	0.00	0.00
14,500.0	90.00	359.74	10,441.0	3,535.1	-355.1	3,543.3	0.00	0.00	0.00
14,600.0	90.00	359.74	10,441.0	3,635.1	-355.6	3,643.3	0.00	0.00	0.00
14,700.0	90.00	359.74	10,441.0	3,735.1	-356.1	3,743.2	0.00	0.00	0.00
14,800.0	90.00	359.74	10,441.0	3,835.1	-356.5	3,843.2	0.00	0.00	0.00
14,900.0	90.00	359.74	10,441.0	3,935.1	-357.0	3,943.2	0.00	0.00	0.00
15,000.0	90.00	359.74	10,441.0	4,035.1	-357.4	4,043.2	0.00	0.00	0.00
15,100.0	90.00	359.74	10,441.0	4,135.1	-357.9	4,143.1	0.00	0.00	0.00
15,200.0	90.00	359.74	10,441.0	4,235.1	-358.4	4,243.1	0.00	0.00	0.00
15,300.0	90.00	359.74	10,441.0	4,335.1	-358.8	4,343.1	0.00	0.00	0.00
15,400.0	90.00	359.74	10,441.0	4,435.1	-359.3	4,443.1	0.00	0.00	0.00
15,500.0	90.00	359.74	10,441.0	4,535.1	-359.7	4,543.1	0.00	0.00	0.00
15,600.0	90.00	359.74	10,441.0	4,635.1	-360.2	4,643.0	0.00	0.00	0.00
15,700.0	90.00	359.74	10,441.0	4,735.1	-360.7	4,743.0	0.00	0.00	0.00
15,800.0	90.00	359.74	10,441.0	4,835.1	-361.1	4,843.0	0.00	0.00	0.00
15,900.0	90.00	359.74	10,441.0	4,935.1	-361.6	4,943.0	0.00	0.00	0.00
16,000.0	90.00	359.74	10,441.0	5,035.1	-362.1	5,042.9	0.00	0.00	0.00
16,100.0	90.00	359.74	10,441.0	5,135.1	-362.5	5,142.9	0.00	0.00	0.00
16,200.0	90.00	359.74	10,441.0	5,235.1	-363.0	5,242.9	0.00	0.00	0.00
16,300.0	90.00	359.74	10,441.0	5,335.1	-363.4	5,342.9	0.00	0.00	0.00
16,400.0	90.00	359.74	10,441.0	5,435.1	-363.9	5,442.8	0.00	0.00	0.00
16,500.0	90.00	359.74	10,441.0	5,535.1	-364.4	5,542.8	0.00	0.00	0.00
16,600.0	90.00	359.74	10,441.0	5,635.1	-364.8	5,642.8	0.00	0.00	0.00
16,700.0	90.00	359.74	10,441.0	5,735.1	-365.3	5,742.8	0.00	0.00	0.00
16,800.0	90.00	359.74	10,441.0	5,835.1	-365.8	5,842.7	0.00	0.00	0.00
16,900.0	90.00	359.74	10,441.0	5,935.1	-366.2	5,942.7	0.00	0.00	0.00
17,000.0	90.00	359.74	10,441.0	6,035.1	-366.7	6,042.7	0.00	0.00	0.00
17,100.0	90.00	359.74	10,441.0	6,135.1	-367.1	6,142.7	0.00	0.00	0.00
17,200.0	90.00	359.74	10,441.0	6,235.1	-367.6	6,242.6	0.00	0.00	0.00
17,300.0	90.00	359.74	10,441.0	6,335.1	-368.1	6,342.6	0.00	0.00	0.00
17,400.0	90.00	359.74	10,441.0	6,435.1	-368.5	6,442.6	0.00	0.00	0.00
17,500.0	90.00	359.74	10,441.0	6,535.1	-369.0	6,542.6	0.00	0.00	0.00
17,600.0	90.00	359.74	10,441.0	6,635.1	-369.4	6,642.5	0.00	0.00	0.00
17,700.0	90.00	359.74	10,441.0	6,735.1	-369.9	6,742.5	0.00	0.00	0.00
17,800.0	90.00	359.74	10,441.0	6,835.1	-370.4	6,842.5	0.00	0.00	0.00
17,900.0	90.00	359.74	10,441.0	6,935.1	-370.8	6,942.5	0.00	0.00	0.00
18,000.0	90.00	359.74	10,441.0	7,035.1	-371.3	7,042.4	0.00	0.00	0.00
18,100.0	90.00	359.74	10,441.0	7,135.1	-371.8	7,142.4	0.00	0.00	0.00
18,200.0	90.00	359.74	10,441.0	7,235.1	-372.2	7,242.4	0.00	0.00	0.00



QES
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,300.0	90.00	359.74	10,441.0	7,335.1	-372.7	7,342.4	0.00	0.00	0.00
18,400.0	90.00	359.74	10,441.0	7,435.1	-373.1	7,442.4	0.00	0.00	0.00
18,500.0	90.00	359.74	10,441.0	7,535.1	-373.6	7,542.3	0.00	0.00	0.00
18,600.0	90.00	359.74	10,441.0	7,635.1	-374.1	7,642.3	0.00	0.00	0.00
18,700.0	90.00	359.74	10,441.0	7,735.1	-374.5	7,742.3	0.00	0.00	0.00
18,800.0	90.00	359.74	10,441.0	7,835.0	-375.0	7,842.3	0.00	0.00	0.00
18,900.0	90.00	359.74	10,441.0	7,935.0	-375.4	7,942.2	0.00	0.00	0.00
19,000.0	90.00	359.74	10,441.0	8,035.0	-375.9	8,042.2	0.00	0.00	0.00
19,100.0	90.00	359.74	10,441.0	8,135.0	-376.4	8,142.2	0.00	0.00	0.00
19,200.0	90.00	359.74	10,441.0	8,235.0	-376.8	8,242.2	0.00	0.00	0.00
19,300.0	90.00	359.74	10,441.0	8,335.0	-377.3	8,342.1	0.00	0.00	0.00
19,400.0	90.00	359.74	10,441.0	8,435.0	-377.8	8,442.1	0.00	0.00	0.00
19,500.0	90.00	359.74	10,441.0	8,535.0	-378.2	8,542.1	0.00	0.00	0.00
19,600.0	90.00	359.74	10,441.0	8,635.0	-378.7	8,642.1	0.00	0.00	0.00
19,700.0	90.00	359.74	10,441.0	8,735.0	-379.1	8,742.0	0.00	0.00	0.00
19,800.0	90.00	359.74	10,441.0	8,835.0	-379.6	8,842.0	0.00	0.00	0.00
19,900.0	90.00	359.74	10,441.0	8,935.0	-380.1	8,942.0	0.00	0.00	0.00
20,000.0	90.00	359.74	10,441.0	9,035.0	-380.5	9,042.0	0.00	0.00	0.00
20,100.0	90.00	359.74	10,441.0	9,135.0	-381.0	9,141.9	0.00	0.00	0.00
20,200.0	90.00	359.74	10,441.0	9,235.0	-381.5	9,241.9	0.00	0.00	0.00
20,300.0	90.00	359.74	10,441.0	9,335.0	-381.9	9,341.9	0.00	0.00	0.00
20,400.0	90.00	359.74	10,441.0	9,435.0	-382.4	9,441.9	0.00	0.00	0.00
20,500.0	90.00	359.74	10,441.0	9,535.0	-382.8	9,541.8	0.00	0.00	0.00
20,600.0	90.00	359.74	10,441.0	9,635.0	-383.3	9,641.8	0.00	0.00	0.00
20,700.0	90.00	359.74	10,441.0	9,735.0	-383.8	9,741.8	0.00	0.00	0.00
20,800.0	90.00	359.74	10,441.0	9,835.0	-384.2	9,841.8	0.00	0.00	0.00
20,900.0	90.00	359.74	10,441.0	9,935.0	-384.7	9,941.7	0.00	0.00	0.00
21,000.0	90.00	359.74	10,441.0	10,035.0	-385.1	10,041.7	0.00	0.00	0.00
21,100.0	90.00	359.74	10,441.0	10,135.0	-385.6	10,141.7	0.00	0.00	0.00
21,200.0	90.00	359.74	10,441.0	10,235.0	-386.1	10,241.7	0.00	0.00	0.00
21,300.0	90.00	359.74	10,441.0	10,335.0	-386.5	10,341.6	0.00	0.00	0.00
21,400.0	90.00	359.74	10,441.0	10,435.0	-387.0	10,441.6	0.00	0.00	0.00
21,500.0	90.00	359.74	10,441.0	10,535.0	-387.5	10,541.6	0.00	0.00	0.00
21,600.0	90.00	359.74	10,441.0	10,635.0	-387.9	10,641.6	0.00	0.00	0.00
21,700.0	90.00	359.74	10,441.0	10,735.0	-388.4	10,741.6	0.00	0.00	0.00
21,800.0	90.00	359.74	10,441.0	10,835.0	-388.8	10,841.5	0.00	0.00	0.00
21,900.0	90.00	359.74	10,441.0	10,935.0	-389.3	10,941.5	0.00	0.00	0.00
22,000.0	90.00	359.74	10,441.0	11,035.0	-389.8	11,041.5	0.00	0.00	0.00
22,100.0	90.00	359.74	10,441.0	11,135.0	-390.2	11,141.5	0.00	0.00	0.00
22,200.0	90.00	359.74	10,441.0	11,235.0	-390.7	11,241.4	0.00	0.00	0.00
22,300.0	90.00	359.74	10,441.0	11,335.0	-391.1	11,341.4	0.00	0.00	0.00
22,400.0	90.00	359.74	10,441.0	11,435.0	-391.6	11,441.4	0.00	0.00	0.00
22,500.0	90.00	359.74	10,441.0	11,535.0	-392.1	11,541.4	0.00	0.00	0.00
22,600.0	90.00	359.74	10,441.0	11,635.0	-392.5	11,641.3	0.00	0.00	0.00
22,700.0	90.00	359.74	10,441.0	11,735.0	-393.0	11,741.3	0.00	0.00	0.00
22,800.0	90.00	359.74	10,441.0	11,835.0	-393.5	11,841.3	0.00	0.00	0.00
22,900.0	90.00	359.74	10,441.0	11,935.0	-393.9	11,941.3	0.00	0.00	0.00
23,000.0	90.00	359.74	10,441.0	12,035.0	-394.4	12,041.2	0.00	0.00	0.00
23,100.0	90.00	359.74	10,441.0	12,135.0	-394.8	12,141.2	0.00	0.00	0.00
23,200.0	90.00	359.74	10,441.0	12,235.0	-395.3	12,241.2	0.00	0.00	0.00
23,300.0	90.00	359.74	10,441.0	12,335.0	-395.8	12,341.2	0.00	0.00	0.00
23,400.0	90.00	359.74	10,441.0	12,435.0	-396.2	12,441.1	0.00	0.00	0.00
23,500.0	90.00	359.74	10,441.0	12,535.0	-396.7	12,541.1	0.00	0.00	0.00
23,600.0	90.00	359.74	10,441.0	12,635.0	-397.2	12,641.1	0.00	0.00	0.00



QES
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
23,700.0	90.00	359.74	10,441.0	12,735.0	-397.6	12,741.1	0.00	0.00	0.00
23,800.0	90.00	359.74	10,441.0	12,835.0	-398.1	12,841.0	0.00	0.00	0.00
23,900.0	90.00	359.74	10,441.0	12,935.0	-398.5	12,941.0	0.00	0.00	0.00
24,000.0	90.00	359.74	10,441.0	13,035.0	-399.0	13,041.0	0.00	0.00	0.00
24,100.0	90.00	359.74	10,441.0	13,135.0	-399.5	13,141.0	0.00	0.00	0.00
24,200.0	90.00	359.74	10,441.0	13,235.0	-399.9	13,240.9	0.00	0.00	0.00
24,300.0	90.00	359.74	10,441.0	13,335.0	-400.4	13,340.9	0.00	0.00	0.00
24,400.0	90.00	359.74	10,441.0	13,435.0	-400.8	13,440.9	0.00	0.00	0.00
24,500.0	90.00	359.74	10,441.0	13,535.0	-401.3	13,540.9	0.00	0.00	0.00
24,600.0	90.00	359.74	10,441.0	13,635.0	-401.8	13,640.9	0.00	0.00	0.00
24,700.0	90.00	359.74	10,441.0	13,735.0	-402.2	13,740.8	0.00	0.00	0.00
24,800.0	90.00	359.74	10,441.0	13,835.0	-402.7	13,840.8	0.00	0.00	0.00
24,900.0	90.00	359.74	10,441.0	13,935.0	-403.2	13,940.8	0.00	0.00	0.00
25,000.0	90.00	359.74	10,441.0	14,035.0	-403.6	14,040.8	0.00	0.00	0.00
25,100.0	90.00	359.74	10,441.0	14,135.0	-404.1	14,140.7	0.00	0.00	0.00
25,200.0	90.00	359.74	10,441.0	14,235.0	-404.5	14,240.7	0.00	0.00	0.00
25,300.0	90.00	359.74	10,441.0	14,335.0	-405.0	14,340.7	0.00	0.00	0.00
25,400.0	90.00	359.74	10,441.0	14,435.0	-405.5	14,440.7	0.00	0.00	0.00
25,500.0	90.00	359.74	10,441.0	14,535.0	-405.9	14,540.6	0.00	0.00	0.00
25,600.0	90.00	359.74	10,441.0	14,635.0	-406.4	14,640.6	0.00	0.00	0.00
25,700.0	90.00	359.74	10,441.0	14,735.0	-406.8	14,740.6	0.00	0.00	0.00
25,800.0	90.00	359.74	10,441.0	14,835.0	-407.3	14,840.6	0.00	0.00	0.00
25,900.0	90.00	359.74	10,441.0	14,935.0	-407.8	14,940.5	0.00	0.00	0.00
26,000.0	90.00	359.74	10,441.0	15,035.0	-408.2	15,040.5	0.00	0.00	0.00
26,100.0	90.00	359.74	10,441.0	15,135.0	-408.7	15,140.5	0.00	0.00	0.00
26,200.0	90.00	359.74	10,441.0	15,235.0	-409.2	15,240.5	0.00	0.00	0.00
26,300.0	90.00	359.74	10,441.0	15,335.0	-409.6	15,340.4	0.00	0.00	0.00
TD @ 26360.6' MD / 10441.0' TVD									
26,360.6	90.00	359.74	10,441.0	15,395.6	-409.9	15,401.1	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP - Nash Unit #404H - hit/miss target - Shape - Point	0.00	0.00	10,000.0	-953.7	-290.0	471,754.80	625,923.60	32° 17' 46.726 N	103° 55' 32.904 W
- plan misses target center by 266.0usft at 10027.3usft MD (9960.1 TVD, -695.6 N, -340.3 E)									
FTP - Nash Unit #404 - hit/miss target - Shape - Point	0.00	0.00	10,441.0	-380.7	-338.5	472,327.80	625,875.10	32° 17' 52.398 N	103° 55' 33.444 W
- plan misses target center by 52.5usft at 10600.0usft MD (10393.5 TVD, -358.3 N, -339.1 E)									
LTP - Nash Unit #404I - hit/miss target - Shape - Point	0.00	0.00	10,441.0	15,345.6	-409.6	488,054.10	625,804.00	32° 20' 28.028 N	103° 55' 33.576 W
- plan misses target center by 10.6usft at 26300.0usft MD (10441.0 TVD, 15335.0 N, -409.6 E)									
BHL - Nash Unit #404 - hit/miss target - Shape - Point	0.00	0.00	10,441.0	15,395.6	-409.9	488,104.10	625,803.70	32° 20' 28.523 N	103° 55' 33.577 W
- plan hits target center									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Nash Unit #404H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3069.0usft (Nabors M7507)
Project:	Eddy County, NM	MD Reference:	RKB @ 3069.0usft (Nabors M7507)
Site:	Sec 18, T23S, R30E	North Reference:	Grid
Well:	Nash Unit #404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
11.0	11.0	Rustler Anh.		0.00	
156.0	156.0	Base Rustler Anh.		0.00	
256.0	256.0	Salado Anh.		0.00	
361.0	361.0	Est. Top of Salt		0.00	
3,092.5	3,092.0	Base Salt		0.00	
3,305.0	3,303.0	Lamar Lm.		0.00	
3,324.2	3,322.0	Bell Canyon Ss		0.00	
4,179.1	4,163.0	Cherry Canyon Ss		0.00	
4,353.0	4,334.0	Base Manzanita Sh		0.00	
5,801.2	5,758.0	Brushy Canyon Ss		0.00	
6,873.2	6,812.0	Basal Brushy Canyon Ss		0.00	
7,115.3	7,051.0	Bone Spring Lm		0.00	
7,235.3	7,170.0	Avalon Ss		0.00	
7,306.7	7,241.0	Bone Spr Up Avalon Lm		0.00	
7,456.3	7,390.0	Bone Spr Up Avalon Sh		0.00	
7,586.6	7,520.0	Bone Spg Low Avalon Lm		0.00	
7,798.8	7,732.0	Bone Spg Low Avalon Sh		0.00	
8,118.8	8,052.0	First Bone Spring Ss		0.00	
8,459.8	8,393.0	Second Bone Spring Lm		0.00	
8,945.8	8,879.0	Second Bone Spring Ss		0.00	
8,985.8	8,919.0	Second Bone Spring A Ss		0.00	
9,050.8	8,984.0	Second Bone Spring A/B Carb		0.00	
9,129.8	9,063.0	Second Bone Spring B Ss		0.00	
9,284.8	9,218.0	Third Bone Spring Lm		0.00	
10,045.5	9,978.0	Third Bone Spring Ss		0.00	
10,276.8	10,190.0	Third Bone Spring Ss War Wink		0.00	
10,397.5	10,282.0	Third Bone Spring Ss Red Hills		0.00	
10,467.2	10,327.0	Wolfcamp Shale		0.00	
10,559.3	10,376.0	Wolfcamp X Ss		0.00	
10,683.1	10,421.0	Wolfcamp Y Ss		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,750.0	2,750.0	0.0	0.0	Build 1.5°/100'
3,449.6	3,445.7	-57.5	-27.8	EOB @ 10.49° Inc. / 205.83° Azm
6,860.9	6,800.0	-616.7	-298.5	Drop 1°/100'
7,910.3	7,843.5	-703.0	-340.3	EOD @ Vert.
9,934.8	9,868.0	-703.0	-340.3	Build 10°/100'
10,834.8	10,441.0	-130.0	-338.3	EOB @ 90.00° Inc. / 0.20° Azm / Turn 2°/100'
10,858.0	10,441.0	-106.8	-338.3	EOT @ 90.00° Inc. / 359.74° Azm
26,360.6	10,441.0	15,395.6	-409.9	TD @ 26360.6' MD / 10441.0' TVD