

**R-111-POTASH
OCD-ARTESIA**

ATS-11-95

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

1a. Type of work ☒ DRILL ☐ REENTER		5 Lease Serial No. NM-0554223 BH NM-0556859, NM-0556860, NM29684	
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2 Name of Operator XTO Energy Inc <5380>		7 If Unit or CA Agreement, Name and No	
3a Address 200 N. Loraine, Ste. 800 Midland, Texas 79701		8 Lease Name and Well No. Nash Unit 58H <303152>	
3b Phone No. (include area code) 432-620-6749		9 API Well No. 30-015-38304	
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1650' FSL & 350' FEL, Sec. 14, T23S, R29-E, UL:1 At proposed prod zone 380' FSL & 340' FWL, Sec. 14, T23-S, R29-E, UL:M		10 Field and Pool, or Exploratory Nash Draw, Brushy Canyon <47545>	
11 Sec, T R M or Blk and Survey or Area Sec 14, T23-S, R29-E, UL:1		12 County or Parish Eddy Co.	
13 State NM		14 Distance in miles and direction from nearest town or post office* Approx 25 miles East Southeast of Carlsbad, NM	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 340' (BHL)	16 No. of acres in lease 5123 Unit	17 Spacing Unit dedicated to this well 160	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth TVD: 6790' TMD: 11247'	20 BLM/BIA Bond No. on file UTB000138	
21 Elevations (Show whether DF, KDB, RT, GL, etc) 2992'	22 Approximate date work will start* 07/18/2011	23 Estimated duration 35 Days	

24. Attachments

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

- | | |
|--|--|
| 1 Well plat certified by a registered surveyor | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2 A Drilling Plan. | 5 Operator certification |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6 Such other site specific information and/or plans as may be required by the authorized officer |

25 Signature Chip Amrock	Name (Printed/Typed) Chip Amrock	Date 12/9/2010
Title Sr. Drilling Engineer		

Approved by (Signature) K. Herrell	Name (Printed/Typed) NM STATE OFFICE	Date MAY - 5 2011
Title STATE DIRECTOR		

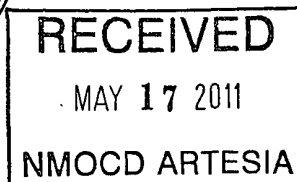
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 USC Section 1001 and Title 43 USC 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)

Carlsbad Controlled Water Basin



**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

**Approval Subject to General Requirements
& Special Stipulations Attached**

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

XTO Energy Inc.

Nash Well #58H

Projected TD: 11247 MD / TVD: 6790'

SHL: 1650' FSL & 350' FEL , SECTION 14, T23S, R29E (I)

BHL: 380' FSL & 340' FWL, SECTION 14, T23S, R29E (M)

Eddy County, NM

Lease #: SHL: NM-0556859, NM-0556860, NM-29684, BHL: NM-0554223

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Salido

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

Formation	Subsea Depth	Well Depth	Water / Oil / Gas
Rustler		282'	Water
Base of Castille		3111'	Water
Bell Canyon		3156'	Water/Oil/Gas
Cherry Canyon		4022'	Water/Oil/Gas
Top Brushy Canyon		5538'	Water/Oil/Gas
Base Brushy Canyon		6564'	Water/Oil/Gas
Brushy Canyon E5 Zone		6766'	Water/Oil/Gas
Target/Land Curve		6790'	Water/Oil/Gas
TD/MD		11247'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8" casing @ 285' and circulating cement back to surface. Potash/fresh water sands will be protected by setting 9-5/8" casing at 3250' and circulating cement to surface. The Brushy Canyon intervals will be isolated by setting 7" casing to the end of the directional curve at 7400' +/- and cementing back to surface. A 6-1/8" lateral hole will be drilled to MD/TD and 4-1/2" casing with Halliburton swell packers will be run for completion.

3. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' - 285' 225	13-3/8"	48#	STC	H-40	New	2.24	.96	4.56
12-1/4"	0' - 3250' 3100	9-5/8"	36#	LTC	J-55	New	2.12	1.38	3.35
8-3/4"	0' - 7400'	7"	26#	LTC	HCP-110	New	2.6	1.6	2.87
6-1/8"	7250 - 11247'	4-1/2"	11.6#	LTC	P-110	New	2.77	1.96	4.73

WELLHEAD:

- A. Starting head: 13-5/8" 3000 psi top flange x 13-3/8" SOW bottom (to be removed upon setting intermediate casing)
- B. Lower casing head: 11" 3000 psi top flange x 9-5/8" SOW bottom
- C. Casing hanger 11" bowl x 7" casing
- D. 'B' Section / Tubing spool: 11" 3000 psi bottom flange x 7-1/16" 5000 psi top flange

4. CEMENT PROGRAM: (Note yields and DV tool depths. If multiple stages)

- 322
COA
- A. Surface Casing: 13-3/8", 48#, NEW H-40, STC casing to be set at $\pm 285'$.

500 sx HalCem-C + 2% CaCl (14.80 ppg, 1.35 cu ft/sx, 6.39gal/sx wtr)

Compr Strengths: 12 hr - 900 psi 24 hr - 1500 psi

***All volumes 100% excess. Cement to surface.

In the event that loss circulation is encountered while drilling the surface hole (i.e. Nash #39H, #40H, #41H), an alternate cementing procedure will be to pump 150 sx Thixotropic + 10 pps CalSeal + 10 pps Gilsonite + 2% CaCl (14 ppg, 1.7 cu ft/sx) Compr Strengths 24 hr - 651 psi 48 hr - 847 psi followed by 200 sx HalCem C + 2% CaCl (properties above) Run temp survey to locate top of cement, top out with 1" to surface with the required amount of "Thixotropic" cement. These events and procedures to be coordinated and communicated with the designated BLM representative.

- B. 1st Interm. Casing: 9-5/8", 36#, NEW J-55, LTC casing to be set at $\pm 3250'$.

Stage 1:

Lead: 20 bbls FW, then 900 sx EconoCem-HLC + 5% salt (mixed at 12.8 ppg, 1.92 ft³/sk, 10.44 gal/sx wtr) Compr Strengths 12 hr - 319 psi 24 hr - 653 psi

Tail: 250 sx HalCem-C + 1% CaCl (mixed at 14.8 ppg, 1.34 ft³/sk, 6.36 gal/sx wtr)

Compr Strengths: 12 hr - 900 psi 24 hr - 1500 psi

***All volumes 100% excess. Cement to surface.

- C. 2nd Interm. Casing: 7", 26#, NEW HCP-110, LTC casing to be set at $\pm 7400'$ w/DVT @ 5500'

Stage 1:

Lead: 650 sx CorossaCem-H + 0.5% LAP-1 + 0.1% HR-800 + 5 lb/sx Gilsonite (14.4ppg, 1.23 cuft/sx, 5.18 gal/sx wtr). Compr Strengths: 24 hr - 681 psi 48 hr - 1561 psi.

Tail (Csg Shoe Cmt): 150 sx HalCem-H + .5% LAP-1 + .25% CFR-3 + 5 pps Gilsonite + .25 lb/sx D-air 3000 (15.8 ppg, 1.17 cuft/sx, 4.58 gal/sx

Compr Strengths - 24 hr - 2203 psi 48 hr - 2788 psi *** Cement to 5500'.

Stage 2: (thru DV Tool @ 5500' up to base of water flow area around 4000')

Lead: 100 sx EconoCem HLC + 5% Salt (mixed at 12.8 ppg, 1.92 cuft/sx, 10.44 gal/sx wtr)

Compr Strengths: 12 hr - 444 psi 24 hr - 755 psi

Tail: 150 sx HalCem C (mixed at 14.8 ppg, 1.33 cuft/sx, 6.34 gal/sx wtr)

Compr Strengths: 12 hr - 1404 psi 24 hr - 1909 psi

Cement to be pumped down the 7" x 9-5/8" annulus to eliminate and isolate the water flow area – cement to fill from 4000' to surface.

Lead: 500 sx EconoCem HLC + 5% Salt (mixed at 12.8 ppg, 1.92 cuft/sx, 10.44 gal/sx wtr)
Compr Strengths: 12 hr – 444 psi 24 hr – 755 psi

Tail: 50 sx HalCem C (mixed at 14.8 ppg, 1.33 cuft/sx, 6.34 gal/sx wtr)
Compr Strengths: 12 hr – 1404 psi 24 hr – 1909 psi *** Cement to Surface.

5. PRESSURE CONTROL EQUIPMENT:

The blow out preventer equipment (BOP) for this well consists of two groups of mechanical pressure equipment – 1) a 13-5/8" 3M Hydril and 2) an 11" 5M double ram BOP with Hydril and manifold.

The 13-5/8" 3M Hydril will be rigged up on the 13-3/8" surface casing and utilized while drilling the 12-1/4" hole to 3250'. This Hydril will be tested to 1500 psi. Once the 9-5/8" casing is cemented, the 13-5/8" 3M Hydril will be removed and a 11" 3M x 9-5/8" bradenhead flange will be installed. The 11" 5M BOP & equipment will then be nipped up and tested. With the 11" 3M bradenhead flange being the limiting factor, the 11" 5M BOP will be tested to 3000 psi. The 3000 psi test pressure is sufficient for this well with formation pressures of 2500 psi or less. The 11" 5M BOP diagram is attached.

6. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 285' ²²⁵	17-1/2"	FW/Native	8.5-8.8	35-40	NC
285' to 3250' +/- ³¹⁰⁰	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3250' to 7400'	8-3/4"	Cut Brine/ Poly-Sweeps	9.2-9.6	29-32	NC-30
7400' to 11247'	6-1/8"	Cut Brine/Poly-Starch	8.6-9	32-38	NC -30

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Use available solids controls equipment to help keep mud weight down after mud up. Rig up Dynamic Energy Systems' 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 the 12-1/4" hole.

8. LOGGING, CORING AND TESTING PROGRAM:

See COA

- A. Mud Logger: Suttles Mud Logging Unit (2 man) on @ 6000'.
Catch 10' samples from 6000' to 11247' (TD/MD).
Send 1 set of dry samples to Midland Sample Library.

9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

None anticipated. Max bottom hole pressure should not exceed 2500psi. BHT of 175 F is anticipated. H₂S can be present from 4600 – TD. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

A. Road and location construction will begin after Santa Fe & BLM has approved APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run then 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.

11. SPECIAL INSTRUCTIONS:

- A. Reports should be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.

- B. Deviation:

Surface Hole: Maximum of 1° and not more than 1° change per 100'.

Intermediate Hole: Maximum of 4° and not more than 1.5° change per 100'.

Production hole: Maximum of 6° and not more than 1.5° change per 100'.

Note: Maximum distance between surveys is 500'.

- See COA
- C. WOC a minimum of 12 hours before drilling out shoe joint on surface and intermediate casing strings. Use minimal WOB and RPM until drill collars are below the shoe joints.

- D. Check BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.

- E. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.

- F. The reserve pits should be lined with a plastic liner in order to contain the drill cuttings and drilling fluids. At the conclusion of the drilling operations, all re-usable drilling fluid should be moved to the next well in the drilling order.



XTO
Eddy County
Nash Unit
#58H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

05 November, 2010

PATHFINDER[®]
A Schlumberger Company



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Eddy County
Site: Nash Unit
Well: #58H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #58H
TVD Reference: WELL @ 3011 00ft (19' KB Correction)
MD Reference: WELL @ 3011 00ft (19' KB Correction)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: Midland Database

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

Site:	Nash Unit		
Site Position:		Northing:	474,205 800 ft
From:	Map	Easting:	624,676 800 ft
Position Uncertainty:	0 00 ft	Slot Radius:	
		Latitude:	32° 18' 11 028 N
		Longitude:	103° 55' 47 322 W
		Grid Convergence:	0 22 "

Well	#58H					
Well Position	+N/-S	0 00 ft	Northing:	473,881 900 ft	Latitude:	32° 18' 8 021 N
	+E/-W	0 00 ft	Easting:	619,224 800 ft	Longitude:	103° 56' 50 859 W
Position Uncertainty	0 00 ft		Wellhead Elevation:	ft	Ground Level:	2,992 00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	01/27/10	7 92	60 24	48,793
Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0 00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0 00	0 00	0 00	254 47	

Survey Tool Program	Date	11/05/10		
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
0 00	11,247 33	Plan #1 (OH)	MWD	MWD - Standard



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Eddy County
Site: Nash Unit
Well: #58H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #58H
TVD Reference: WELL @ 3011'00ft (19' KB Correction)
MD Reference: WELL @ 3011'00ft (19' KB Correction)
North Reference: Gnd
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	.DLeg (%/100ft)	Northing (ft)	Easting (ft)
0 00	0 00	0 00	0 00	-3,011 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
100 00	0 00	0 00	100 00	-2,911 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
200 00	0 00	0 00	200 00	-2,811 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
300 00	0 00	0 00	300 00	-2,711 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
400 00	0 00	0 00	400 00	-2,611 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
500 00	0 00	0 00	500 00	-2,511 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
600 00	0 00	0 00	600 00	-2,411 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
700 00	0 00	0 00	700 00	-2,311 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
800 00	0 00	0 00	800 00	-2,211 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
900 00	0 00	0 00	900 00	-2,111 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,000 00	0 00	0 00	1,000 00	-2,011 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,100 00	0 00	0 00	1,100 00	-1,911 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,200 00	0 00	0 00	1,200 00	-1,811 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,300 00	0 00	0 00	1,300 00	-1,711 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,400 00	0 00	0 00	1,400 00	-1,611 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,500 00	0 00	0 00	1,500 00	-1,511 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,600 00	0 00	0 00	1,600 00	-1,411 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,700 00	0 00	0 00	1,700 00	-1,311 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,800 00	0 00	0 00	1,800 00	-1,211 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
1,900 00	0 00	0 00	1,900 00	-1,111 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,000 00	0 00	0 00	2,000 00	-1,011 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,100 00	0 00	0 00	2,100 00	-911 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,200 00	0 00	0 00	2,200 00	-811 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,300 00	0 00	0 00	2,300 00	-711 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,400 00	0 00	0 00	2,400 00	-611 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,500 00	0 00	0 00	2,500 00	-511 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,600 00	0 00	0 00	2,600 00	-411 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80



Pathfinder
Pathfinder X & Y Planning Report



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MD (ft)	Inc (")	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700 00	0 00	0 00	2,700 00	-311 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,800 00	0 00	0 00	2,800 00	-211 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
2,900 00	0 00	0 00	2,900 00	-111 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,000 00	0 00	0 00	3,000 00	-11 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,100 00	0 00	0 00	3,100 00	89 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,200 00	0 00	0 00	3,200 00	189 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,300 00	0 00	0 00	3,300 00	289 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,400 00	0 00	0 00	3,400 00	389 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,500 00	0 00	0 00	3,500 00	489 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,600 00	0 00	0 00	3,600 00	589 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,700 00	0 00	0 00	3,700 00	689 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,800 00	0 00	0 00	3,800 00	789 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
3,900 00	0 00	0 00	3,900 00	889 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,000 00	0 00	0 00	4,000 00	989 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,100 00	0 00	0 00	4,100 00	1,089 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,200 00	0 00	0 00	4,200 00	1,189 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,300 00	0 00	0 00	4,300 00	1,289 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,400 00	0 00	0 00	4,400 00	1,389 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,500 00	0 00	0 00	4,500 00	1,489 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,600 00	0 00	0 00	4,600 00	1,589 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,700 00	0 00	0 00	4,700 00	1,689 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,800 00	0 00	0 00	4,800 00	1,789 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
4,900 00	0 00	0 00	4,900 00	1,889 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
5,000 00	0 00	0 00	5,000 00	1,989 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
5,100 00	0 00	0 00	5,100 00	2,089 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
5,200 00	0 00	0 00	5,200 00	2,189 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80
5,300 00	0 00	0 00	5,300 00	2,289 00	0 00	0 00	0 00	0 00	473,881 90	619,224 80



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5,400.00	0.00	0.00	5,400.00	2,389.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
5,500.00	0.00	0.00	5,500.00	2,489.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
5,600.00	0.00	0.00	5,600.00	2,589.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
5,700.00	0.00	0.00	5,700.00	2,689.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
5,800.00	0.00	0.00	5,800.00	2,789.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
5,900.00	0.00	0.00	5,900.00	2,889.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
5,978.00	0.00	0.00	5,978.00	2,967.00	0.00	0.00	0.00	0.00	473,881.90	619,224.80
KOP-5978.00°MD,0.00°INC,0.00°AZI,5978.00°TVD										
6,000.00	1.54	254.47	6,000.00	2,989.00	-0.08	-0.29	0.30	7.00	473,881.82	619,224.51
6,050.00	5.04	254.47	6,049.91	3,038.91	-0.85	-3.05	3.17	7.00	473,881.05	619,221.75
6,100.00	8.55	254.47	6,099.55	3,088.55	-2.43	-8.75	9.08	7.00	473,879.47	619,216.05
6,150.00	12.05	254.47	6,148.74	3,137.74	-4.82	-17.36	18.02	7.00	473,877.08	619,207.44
6,200.00	15.55	254.47	6,197.28	3,186.28	-8.02	-28.85	29.94	7.00	473,873.88	619,195.95
6,250.00	19.05	254.47	6,245.02	3,234.02	-12.00	-43.17	44.81	7.00	473,869.90	619,181.63
6,300.00	22.55	254.47	6,291.75	3,280.75	-16.75	-60.28	62.56	7.00	473,865.15	619,164.52
6,350.00	26.06	254.47	6,337.31	3,326.31	-22.26	-80.10	83.14	7.00	473,859.64	619,144.70
6,400.00	29.56	254.47	6,381.53	3,370.53	-28.50	-102.57	106.46	7.00	473,853.40	619,122.23
6,450.00	33.06	254.47	6,424.24	3,413.24	-35.46	-127.60	132.44	7.00	473,846.44	619,097.20
6,500.00	36.56	254.47	6,465.29	3,454.29	-43.10	-155.10	160.98	7.00	473,838.80	619,069.70
6,550.00	40.07	254.47	6,504.51	3,493.51	-51.40	-184.96	191.97	7.00	473,830.50	619,039.84
6,600.00	43.57	254.47	6,541.77	3,530.77	-60.32	-217.08	225.30	7.00	473,821.58	619,007.72
6,650.00	47.07	254.47	6,576.92	3,565.92	-69.84	-251.33	260.85	7.00	473,812.06	618,973.47
6,700.00	50.57	254.47	6,609.84	3,598.84	-79.92	-287.58	298.48	7.00	473,801.98	618,937.22
6,750.00	54.07	254.47	6,640.39	3,629.39	-90.51	-325.70	338.04	7.00	473,791.39	618,899.10
6,800.00	57.58	254.47	6,668.48	3,657.48	-101.58	-365.55	379.40	7.00	473,780.32	618,859.25
6,850.00	61.08	254.47	6,693.98	3,682.98	-113.10	-406.98	422.40	7.00	473,768.80	618,817.82
6,900.00	64.58	254.47	6,716.81	3,705.81	-125.00	-449.83	466.88	7.00	473,756.90	618,774.97



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Eddy County
Site: Nash Unit
Well: #58H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #58H
TVD Reference: WELL @ 3011' 00ft (19' KB Correction)
MD Reference: WELL @ 3011' 00ft (19' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (")	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec. (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
6,950.00	68.08	254.47	6,736.88	3,725.88	-137.26	-493.95	512.66	7.00	473,744.64	618,730.85
7,000.00	71.58	254.47	6,754.11	3,743.11	-149.83	-539.16	559.59	7.00	473,732.07	618,685.64
7,050.00	75.09	254.47	6,768.45	3,757.45	-162.65	-585.31	607.48	7.00	473,719.25	618,639.49
7,100.00	78.59	254.47	6,779.83	3,768.83	-175.68	-632.21	656.16	7.00	473,706.22	618,592.59
7,150.00	82.09	254.47	6,788.22	3,777.22	-188.88	-679.69	705.45	7.00	473,693.02	618,545.11
7,200.00	85.59	254.47	6,793.58	3,782.58	-202.19	-727.58	755.15	7.00	473,679.71	618,497.22
7,250.00	89.10	254.47	6,795.90	3,784.90	-215.56	-775.70	805.09	7.00	473,666.34	618,449.10
7,262.91	90.00	254.47	6,796.00	3,785.00	-219.01	-788.14	818.00	7.00	473,662.89	618,436.66
EOC-7262.91°MD,90.00°INC,254.47°AZI,6796.00°TVD,7.00°DLS, 818.00°VS, -219.01°N, -788.13°E										
7,300.00	90.00	254.47	6,796.00	3,785.00	-228.94	-823.87	855.09	0.00	473,652.96	618,400.93
7,400.00	90.00	254.47	6,796.00	3,785.00	-255.72	-920.22	955.09	0.00	473,626.18	618,304.58
7,500.00	90.00	254.47	6,796.00	3,785.00	-282.49	-1,016.57	1,055.09	0.00	473,599.41	618,208.23
7,600.00	90.00	254.47	6,796.00	3,785.00	-309.27	-1,112.92	1,155.09	0.00	473,572.63	618,111.88
7,700.00	90.00	254.47	6,796.00	3,785.00	-336.04	-1,209.27	1,255.09	0.00	473,545.86	618,015.53
7,800.00	90.00	254.47	6,796.00	3,785.00	-362.82	-1,305.61	1,355.09	0.00	473,519.08	617,919.19
7,900.00	90.00	254.47	6,796.00	3,785.00	-389.59	-1,401.96	1,455.09	0.00	473,492.31	617,822.84
8,000.00	90.00	254.47	6,796.00	3,785.00	-416.36	-1,498.31	1,555.09	0.00	473,465.54	617,726.49
8,100.00	90.00	254.47	6,796.00	3,785.00	-443.14	-1,594.66	1,655.09	0.00	473,438.76	617,630.14
8,200.00	90.00	254.47	6,796.00	3,785.00	-469.91	-1,691.01	1,755.09	0.00	473,411.99	617,533.79
8,300.00	90.00	254.47	6,796.00	3,785.00	-496.69	-1,787.36	1,855.09	0.00	473,385.21	617,437.44
8,400.00	90.00	254.47	6,796.00	3,785.00	-523.46	-1,883.71	1,955.09	0.00	473,358.44	617,341.09
8,500.00	90.00	254.47	6,796.00	3,785.00	-550.24	-1,980.06	2,055.09	0.00	473,331.66	617,244.74
8,600.00	90.00	254.47	6,796.00	3,785.00	-577.01	-2,076.41	2,155.09	0.00	473,304.89	617,148.39
8,700.00	90.00	254.47	6,796.00	3,785.00	-603.78	-2,172.76	2,255.09	0.00	473,278.12	617,052.04
8,800.00	90.00	254.47	6,796.00	3,785.00	-630.56	-2,269.11	2,355.09	0.00	473,251.34	616,955.69
8,900.00	90.00	254.47	6,796.00	3,785.00	-657.33	-2,365.45	2,455.09	0.00	473,224.57	616,859.35
9,000.00	90.00	254.47	6,796.00	3,785.00	-684.11	-2,461.80	2,555.09	0.00	473,197.79	616,763.00



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Eddy County
Site: Nash Unit
Well: #58H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #58H
TVD Reference: WELL @ 3011 00ft (19' KB Correction)
MD Reference: WELL @ 3011 00ft (19' KB Correction)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,100 00	90 00	254 47	6,796 00	3,785 00	-710 88	-2,558 15	2,655 09	0 00	473,171 02	616,666 65
9,200 00	90 00	254 47	6,796 00	3,785 00	-737 66	-2,654 50	2,755 09	0 00	473,144 24	616,570 30
9,300 00	90 00	254 47	6,796 00	3,785 00	-764 43	-2,750 85	2,855 09	0 00	473,117 47	616,473 95
9,400 00	90 00	254 47	6,796 00	3,785 00	-791 20	-2,847 20	2,955 09	0 00	473,090 70	616,377 60
9,500 00	90 00	254 47	6,796 00	3,785 00	-817 98	-2,943 55	3,055 09	0 00	473,063 92	616,281 25
9,600 00	90 00	254 47	6,796 00	3,785 00	-844 75	-3,039 90	3,155 09	0 00	473,037 15	616,184 90
9,700 00	90 00	254 47	6,796 00	3,785 00	-871 53	-3,136 25	3,255 09	0 00	473,010 37	616,088 55
9,800 00	90 00	254 47	6,796 00	3,785 00	-898 30	-3,232 60	3,355 09	0 00	472,983 60	615,992 20
9,900 00	90 00	254 47	6,796 00	3,785 00	-925 08	-3,328 94	3,455 09	0 00	472,956 82	615,895 86
10,000 00	90 00	254 47	6,796 00	3,785 00	-951 85	-3,425 29	3,555 09	0 00	472,930 05	615,799 51
10,100 00	90 00	254 47	6,796 00	3,785 00	-978 62	-3,521 64	3,655 09	0 00	472,903 28	615,703 16
10,200 00	90 00	254 47	6,796 00	3,785 00	-1,005 40	-3,617 99	3,755 09	0 00	472,876 50	615,606 81
10,300 00	90 00	254 47	6,796 00	3,785 00	-1,032 17	-3,714 34	3,855 09	0 00	472,849 73	615,510 46
10,400 00	90 00	254 47	6,796 00	3,785 00	-1,058 95	-3,810 69	3,955 09	0 00	472,822 95	615,414 11
10,500 00	90 00	254 47	6,796 00	3,785 00	-1,085 72	-3,907 04	4,055 09	0 00	472,796 18	615,317 76
10,600 00	90 00	254 47	6,796 00	3,785 00	-1,112 50	-4,003 39	4,155 09	0 00	472,769 40	615,221 41
10,700 00	90 00	254 47	6,796 00	3,785 00	-1,139 27	-4,099 74	4,255 09	0 00	472,742 63	615,125 06
10,800 00	90 00	254 47	6,796 00	3,785 00	-1,166 04	-4,196 09	4,355 09	0 00	472,715 86	615,028 71
10,900 00	90 00	254 47	6,796 00	3,785 00	-1,192 82	-4,292 44	4,455 09	0 00	472,689 08	614,932 36
11,000 00	90 00	254 47	6,796 00	3,785 00	-1,219 59	-4,388 78	4,555 09	0 00	472,662 31	614,836 02
11,100 00	90 00	254 47	6,796 00	3,785 00	-1,246 37	-4,485 13	4,655 09	0 00	472,635 53	614,739 67
11,200 00	90 00	254 47	6,796 00	3,785 00	-1,273 14	-4,581 48	4,755 09	0 00	472,608 76	614,643 32
11,247 33	90 00	254 47	6,796 00	3,785 00	-1,285 81	-4,627 08	4,802 41	0 00	472,596 09	614,597 72

TD at 11247.33 - PBHL(#58H).



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Eddy County
Site: Nash Unit
Well: #58H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #58H
TVD Reference: WELL @ 3011 00ft (19' KB Correction)
MD Reference: WELL @ 3011 00ft (19' KB Correction)
North Reference: Gnd
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (#58H)	0 00	0 00	6,796 00	-1,286 10	-4,627 00	472,595 800	614,597 800	32° 17' 55 455 N	103° 57' 44.821 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,978 00	5,978 00	0 00	0 00	KOP-5978 00'MD,0 00'INC,0 00'AZI,5978 00'TVD
7,262 91	6,796 00	-219 01	-788 14	EOC-7262 91'MD,90 00'INC,254 47'AZI,6796 00'TVD,7 00'DLS, 818 (
11,247 33	6,796 00	-1,285 81	-4,627 08	TD at 11247 33

Checked By _____ Approved By _____ Date _____



Project: Eddy County
Site: Nash Unit
Well: #58H
Wellbore: OH
Plan: Plan #1 (#58H/OH)



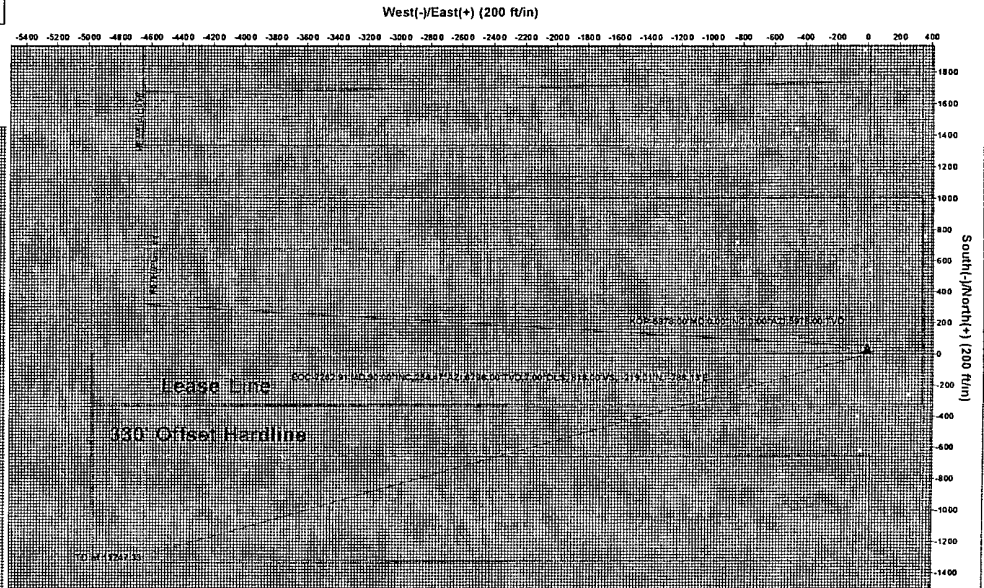
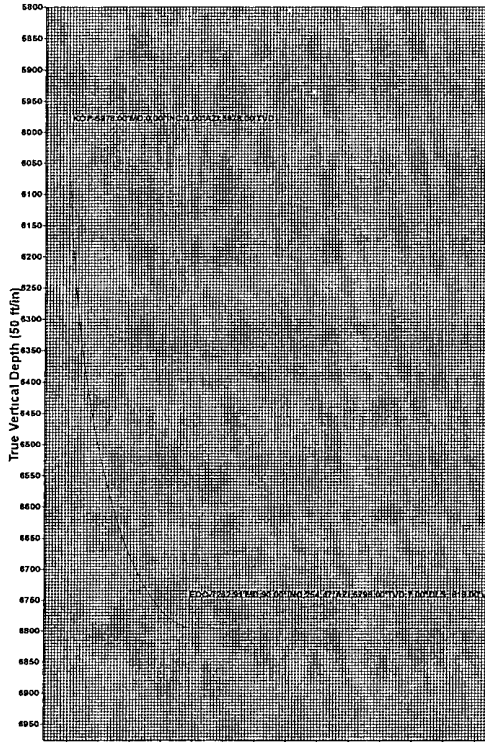
Azimuths to Grid North
True North: -0.21°
Magnetic North: 7.71°
Magnetic Field
Strength: 48792.9 nT
Dip Angle: 60.24°
Date: 01/27/2010
Model: IGRF200510



A Schlumberger Company

SECTION DETAILS										
Sec	MD	INC	API	TYD	WOB	EDW	CLS	IFACE	VSM	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5979.00	0.00	0.00	5979.00	0.00	0.00	0.00	0.00	0.00	
3	7252.91	90.00	254.47	6786.00	-219.01	789.14	7.00	254.47	818.00	
4	11247.33	90.00	254.47	8796.00	-1285.81	-4627.08	0.00	0.00	4802.41	PBHL(#58H)

WELL DETAILS #58H						
Ground Elevation: 2592.00						
RWD Elevation: WELL @ 2011.000 (15 KB Correction)						
Rig Name: IF KB Correction						
NUT-S	EDW	Northing	Easting	Latitude	Longitude	Site
0.00	0.00	473891.900	619224.800	32° 18' 8.021 N	103° 56' 50.855 W	



PROJECT DETAILS Eddy County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

Plan: Plan #1 (#58H/OH)
Created By: Nate Bingham Date: 9/05/November/03/2010
Checked: _____ Date: _____

GEOLOGICAL WELL PLAN & AFE REQUEST

OPERATOR: XTO Energy Inc.
EXISTING WELLS:
WELL NAME: NASH UNIT 58H

Ralph Nelson

DATE: March 4, 2010

LOCATION: SHL: X= 619533.0 Y= 472896.0 1650' FSL 330' FEL 23S 29E Section 14 SE 1/4
BHL: X= 614600.0 Y= 472552.0 380' FSL 340' FWL 23S 29E Section 14 SW 1/4
EDDY COUNTY, NM

ENG. TJ MIDKIFF LND. STEVE COBB
PROSPECT: BASAL BYCN E5 ZONE Delaware Mtn Horizontal Drillwell
EST T.D.: 11,700 MD

CLASS H
HBP
SURFACE OWNER BLM??

Drill lateral at 237 degrees azimuth to 1800' vertical section and turn to 265 degrees azimuth at 1800' vertical section to TD with an inclination of 90.8 degrees

Land well at 900' VS at -3786 or 6796' MD (3010' KB) Please Note: Hard Line 330' FSL of Section 14

DEVELOPMENT XX NEW WELL: XX OIL with GAS XX

MUD LOG:

DEPTH ON 500' before KO	DEPTH OFF TD	LOGGING COMPANY TBD	TYPE UNIT 2-man
SAMPLES.	Caught & Bagged	Depth Interval	1 Set of samples delivered to:
Email mudlogs 3 times daily to ralph_nelson@xtoenergy.com AM, 3:00 PM and 9:00 PM	Every 10' feet in vertical and deviated / every 30 feet in horizontal	surface casing - TD	International Midland Sample Library 707 S. Connell Midland, TX 79701 hand deliver or FedEx/UPS only

OPENHOLE LOGS: RUN 1

TYPE LOGS

WELL DEPTH

Logging Company

none unless required by BLM

Other GR (MWD)

500' before kickoff to TD

Remarks

Email GR and surveys including MD, TVD, and TVD up log on 5" scale to ralph_nelson@xtoenergy.com at 6:30 AM, 3:00 PM and 9:00 PM

Wellsite geological

Mud Logger
XX

Consultant

Company

SUPERVISION:

Geologist: Ralph Nelson
If no answer, leave message, wait 15 minutes before calling engineer below

Office: (817) 885-3440
Cell: (432) 528-7777

Engineer: T.J. Midkiff

Office: (817) 885-2823
Cell: (817) 312-3358

EXPECTED FORMATION TOPS:	K.B. Elevation (feet)	3010'	(Est XX Actual)
Formation	Subsea Depth (feet)	Well Depth (feet)*	
Rustler/Salado	2,728'	282'	TVD
Base Castile	-101'	3,111'	TVD
Bell Canyon	-146'	3,156'	TVD
Cherry Canyon	-1,012'	4,022'	TVD
Brushy Canyon	-2,528'	5,538'	TVD
Basal Brushy Canyon*	-3,554'	6,564'	TVD
Brushy Canyon E5 zone*	-3,756'	6,766'	TVD
Target Interval*	-3,786'	6,796'	TVD

* At 0 vertical section

USE SUBSEA ONLY FOR CALCULATIONS

Special Instructions:

Hard Line 330' FSL

Well has been planned to land approx. 900 feet from surface.
Location must be no less than 1650' FSL and on Nash # 25 pad

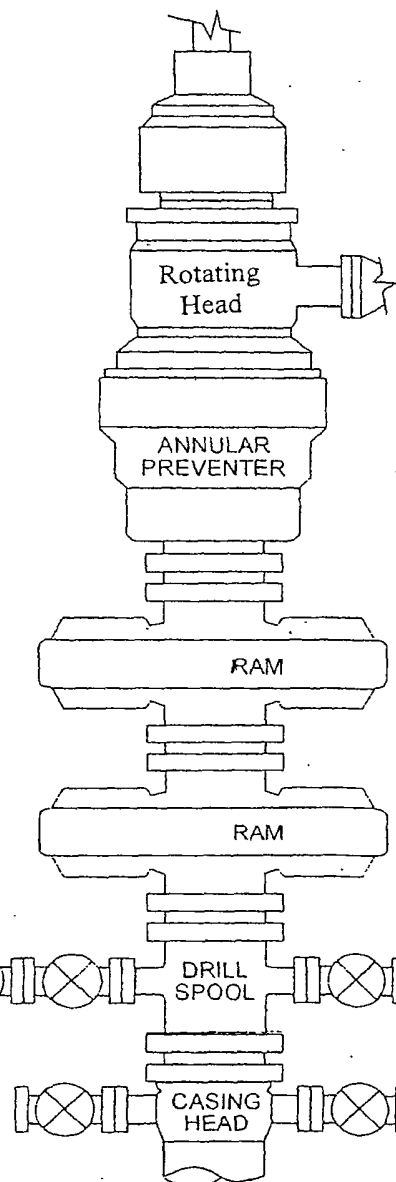
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XTO ENERGY INC

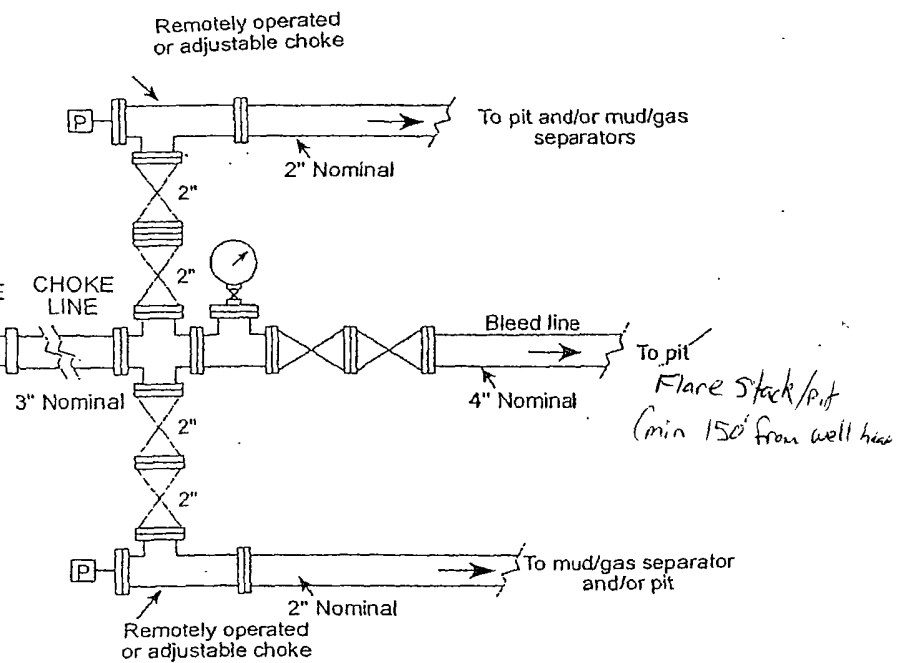
Nash Unit #50H

11" Hydraulic
Double Ram BOP
Blinds X Pipe Rams

Check valve



11" 5000 psi
Hydraulic
Annular BOP



5000 psi Working Pressure
BOPE Configuration and Choke Manifold