ATS-11-98

R-111-POTASH

OCD-ARTESIA

Form 3160-3
(April 2004)

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

EA 374

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NM-17589/NM-0556857/NM-055686 3 BH

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

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

8. Lease Name and Well No.
Nash Unit 50H

2. Name of Operator
XTO Energy Inc

9. API Well No.
30-015-38991

3a. Address **200 N. Loraine, Ste. 800**
Midland, Texas 79701

3b. Phone No. *(include area code)*
432-620-6749

10. Field and Pool, or Exploratory
Nash Draw, Brushy Canyon

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **1980' FSL & 200' FEL, Sec. 13, T23S, R29-E, UL:1**
At proposed prod. zone **1980' FSL & 340' FEL, Sec. 18, T23-S, R30-E, UL:1**

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 13, T23-S, R29-E, UL:1

14. Distance in miles and direction from nearest town or post office*
Approx 25 miles East Southeast of Carlsbad, NM

12. County or Parish
Eddy Co.

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)
200' (SHL)

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 6950'
TVD: ~~6975~~' TMD: 11783'

20. BLM/BIA Bond No. on file
UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3018'

22. Approximate date work will start*
04/02/2011

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Chip Amrock — Name *(Printed/Typed)* **Chip Amrock** — Date 12/9/2010

Title **Sr. Drilling Engineer**

Approved by *(Signature)* /s/ Linda S.C. Rundell — Name *(Printed/Typed)* — Date APR 6 2011

Title STATE DIRECTOR — Office NM STATE OFFICE

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

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**(Instructions on page 2)*

CARLSBAD CONTROLLED WATER BASIN

RECEIVED
APR 13 2011
NMOCD ARTESIA

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NSL

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE STREET
CARLSBAD, NM 88220

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Operator Name: XTO ENERGY INC

Street or Box: 200 N. Loraine St., Ste. 800

City, State: Midland, TX

Zip Code: 79701

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No: SHL: NM-17589, NM-0556857(run thru), BHL: NM-0556863

Legal Description of Land: NASH #50H

UL: I Section: 13 Township: 23 South Range: 29 East

County: Eddy State: New Mexico

Bond Coverage: $1,184,600.00

Notion Statewide Oil and Gas Surety Bond, XTO ENERGY INC.

BLM Bond File No.: UTB000138

Signature: _____ Printed Name: Don Eubank

Title: Drilling Manager

Date: 11/3/2010

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

XTO Energy Inc.
Nash Well #50H
Projected TD: 11783 MD / TVD: 6975'
SHL: 1980' FSL & 200' FEL , SECTION 13, T23S, R29E (I)
BHL: 1980' FSL & 340' FEL, SECTION 18, T23S, R30E (I)
Eddy County, NM
Lease #: NM-17589, NM-0556857, NM-0556863

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		265'	Water
Base of Castille		3219'	Water
Bell Canyon		3260'	Water/Oil/Gas
Cherry Canyon		4121'	Water/Oil/Gas
Top Brushy Canyon		5720'	Water/Oil/Gas
Base Brushy Canyon		6735'	Water/Oil/Gas
Brushy Canyon E5 Zone		6905'	Water/Oil/Gas
Target/Land Curve		6975'	Water/Oil/Gas
TD/MD		11783'	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 @ ~~265~~ 215' and circulating cement back to surface. Potash/fresh water sands will be protected by setting 9-5/8" casing at ~~3350~~ 3200' 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' – ~~265~~ 215'	13-3/8"	48#	STC	H-40	New	2.24	.96	4.56
12-1/4"	0' – ~~3350~~ 3200'	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 – 11783'	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 depts. If multiple stages) See COA

A. **Surface Casing:** 13-3/8", 48#, NEW H-40, STC casing to be set at ± 265'.

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 ± 3350'.

Stage 1:

Lead: 20 bbls FW, then 900 sx EconoCem-HLC + 5% salt (mixed at 12.8 ppg, 1.92 ft^3/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 ft^3/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 ± 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 wil be rigged up on the 13-3/8" surface casing and utilized while drilling the 12-1/4" hole to 3350'. 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 nippled 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 ~~265~~ 215	17-1/2"	FW/Native	8.5-8.8	35-40	NC
~~280~~ to ~~3350~~ 3200' +/-	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3350' to 7400'	8-3/4"	Cut Brine/ Poly-Sweeps	9.2-9.6	29-32	NC-30
7400' to 11783'	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 11783' (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~~ 24 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 ENERGY

XTO
Eddy County
Nash Unit
#50H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

27 October, 2010

PATHFINDER®
A Schlumberger Company

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Eddy County

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 Nash Unit

Site Position:		**Northing:**	474,205.800 ft	**Latitude:**	32° 18' 11.028 N
From:	Map	**Easting:**	624,676.800 ft	**Longitude:**	103° 55' 47.322 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.22 °

Well #50H

Well Position	**+N/-S**	0.00 ft	**Northing:**	474,205.800 ft	**Latitude:**	32° 18' 11.028 N
	+E/-W	0.00 ft	**Easting:**	624,676.800 ft	**Longitude:**	103° 55' 47.322 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,018.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	10/27/10	7.82	60.23	48,724

Design Plan #1

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	89.88

Survey Tool Program **Date** 10/27/10

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	11,782.63	Plan #1 (OH)	MWD	MWD - Standard

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**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	-3,037.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
100.00	0.00	0.00	100.00	-2,937.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
200.00	0.00	0.00	200.00	-2,837.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
300.00	0.00	0.00	300.00	-2,737.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
400.00	0.00	0.00	400.00	-2,637.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
500.00	0.00	0.00	500.00	-2,537.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
600.00	0.00	0.00	600.00	-2,437.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
700.00	0.00	0.00	700.00	-2,337.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
800.00	0.00	0.00	800.00	-2,237.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
900.00	0.00	0.00	900.00	-2,137.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,000.00	0.00	0.00	1,000.00	-2,037.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,100.00	0.00	0.00	1,100.00	-1,937.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,200.00	0.00	0.00	1,200.00	-1,837.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,300.00	0.00	0.00	1,300.00	-1,737.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,400.00	0.00	0.00	1,400.00	-1,637.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,500.00	0.00	0.00	1,500.00	-1,537.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,600.00	0.00	0.00	1,600.00	-1,437.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,700.00	0.00	0.00	1,700.00	-1,337.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,800.00	0.00	0.00	1,800.00	-1,237.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
1,900.00	0.00	0.00	1,900.00	-1,137.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,000.00	0.00	0.00	2,000.00	-1,037.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,100.00	0.00	0.00	2,100.00	-937.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,200.00	0.00	0.00	2,200.00	-837.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,300.00	0.00	0.00	2,300.00	-737.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,400.00	0.00	0.00	2,400.00	-637.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,500.00	0.00	0.00	2,500.00	-537.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,600.00	0.00	0.00	2,600.00	-437.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**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)
2,700.00	0.00	0.00	2,700.00	-337.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,800.00	0.00	0.00	2,800.00	-237.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
2,900.00	0.00	0.00	2,900.00	-137.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,000.00	0.00	0.00	3,000.00	-37.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,100.00	0.00	0.00	3,100.00	63.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,200.00	0.00	0.00	3,200.00	163.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,300.00	0.00	0.00	3,300.00	263.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,400.00	0.00	0.00	3,400.00	363.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,500.00	0.00	0.00	3,500.00	463.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,600.00	0.00	0.00	3,600.00	563.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,700.00	0.00	0.00	3,700.00	663.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,800.00	0.00	0.00	3,800.00	763.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
3,900.00	0.00	0.00	3,900.00	863.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,000.00	0.00	0.00	4,000.00	963.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,100.00	0.00	0.00	4,100.00	1,063.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,200.00	0.00	0.00	4,200.00	1,163.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,300.00	0.00	0.00	4,300.00	1,263.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,400.00	0.00	0.00	4,400.00	1,363.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,500.00	0.00	0.00	4,500.00	1,463.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,600.00	0.00	0.00	4,600.00	1,563.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,700.00	0.00	0.00	4,700.00	1,663.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,800.00	0.00	0.00	4,800.00	1,763.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
4,900.00	0.00	0.00	4,900.00	1,863.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,000.00	0.00	0.00	5,000.00	1,963.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,100.00	0.00	0.00	5,100.00	2,063.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,200.00	0.00	0.00	5,200.00	2,163.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,300.00	0.00	0.00	5,300.00	2,263.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**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)
5,400.00	0.00	0.00	5,400.00	2,363.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,500.00	0.00	0.00	5,500.00	2,463.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,600.00	0.00	0.00	5,600.00	2,563.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,700.00	0.00	0.00	5,700.00	2,663.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,800.00	0.00	0.00	5,800.00	2,763.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
5,900.00	0.00	0.00	5,900.00	2,863.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
6,000.00	0.00	0.00	6,000.00	2,963.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
6,050.00	0.00	0.00	6,050.00	3,013.00	0.00	0.00	0.00	0.00	474,205.80	624,676.80
KOP-6050.00'MD,0.00°INC,0.00°AZI,6050.00'TVD										
6,100.00	3.18	89.88	6,099.97	3,062.97	0.00	1.39	1.39	6.37	474,205.80	624,678.19
6,150.00	6.37	89.88	6,149.79	3,112.79	0.01	5.55	5.55	6.37	474,205.81	624,682.35
6,200.00	9.55	89.88	6,199.31	3,162.31	0.03	12.47	12.47	6.37	474,205.83	624,689.27
6,250.00	12.73	89.88	6,248.36	3,211.36	0.05	22.13	22.13	6.37	474,205.85	624,698.93
6,300.00	15.92	89.88	6,296.80	3,259.80	0.07	34.50	34.50	6.37	474,205.87	624,711.30
6,350.00	19.10	89.88	6,344.48	3,307.48	0.10	49.54	49.54	6.37	474,205.90	624,726.34
6,400.00	22.28	89.88	6,391.24	3,354.24	0.14	67.20	67.20	6.37	474,205.94	624,744.00
6,450.00	25.46	89.88	6,436.96	3,399.96	0.18	87.44	87.44	6.37	474,205.98	624,764.24
6,500.00	28.65	89.88	6,481.48	3,444.48	0.23	110.18	110.18	6.37	474,206.03	624,786.98
6,550.00	31.83	89.88	6,524.67	3,487.67	0.28	135.35	135.35	6.37	474,206.08	624,812.15
6,600.00	35.01	89.88	6,566.40	3,529.40	0.34	162.89	162.89	6.37	474,206.14	624,839.69
6,650.00	38.20	89.88	6,606.53	3,569.53	0.40	192.70	192.70	6.37	474,206.20	624,869.50
6,700.00	41.38	89.88	6,644.95	3,607.95	0.47	224.69	224.70	6.37	474,206.27	624,901.49
6,750.00	44.56	89.88	6,681.53	3,644.53	0.54	258.77	258.77	6.37	474,206.34	624,935.57
6,800.00	47.75	89.88	6,716.16	3,679.16	0.62	294.83	294.83	6.37	474,206.42	624,971.63
6,850.00	50.93	89.88	6,748.73	3,711.73	0.70	332.75	332.75	6.37	474,206.50	625,009.55
6,900.00	54.11	89.88	6,779.15	3,742.15	0.78	372.43	372.43	6.37	474,206.58	625,049.23
6,950.00	57.30	89.88	6,807.32	3,770.32	0.87	413.73	413.73	6.37	474,206.67	625,090.53

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**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)
7,000.00	60.48	89.88	6,833.16	3,796.16	0.96	456.53	456.53	6.37	474,206.76	625,133.33
7,050.00	63.66	89.88	6,856.57	3,819.57	1.05	500.70	500.70	6.37	474,206.85	625,177.50
7,100.00	66.85	89.88	6,877.50	3,840.50	1.14	546.10	546.10	6.37	474,206.94	625,222.90
7,150.00	70.03	89.88	6,895.87	3,858.87	1.24	592.60	592.60	6.37	474,207.04	625,269.40
7,200.00	73.21	89.88	6,911.64	3,874.64	1.34	640.04	640.04	6.37	474,207.14	625,316.84
7,250.00	76.39	89.88	6,924.74	3,887.74	1.44	688.28	688.29	6.37	474,207.24	625,365.08
7,300.00	79.58	89.88	6,935.15	3,898.15	1.54	737.18	737.18	6.37	474,207.34	625,413.98
7,350.00	82.76	89.88	6,942.83	3,905.83	1.65	786.58	786.59	6.37	474,207.45	625,463.38
7,400.00	85.94	89.88	6,947.75	3,910.75	1.75	836.33	836.34	6.37	474,207.55	625,513.13
7,450.00	89.13	89.88	6,949.90	3,912.90	1.86	886.28	886.28	6.37	474,207.66	625,563.08
7,463.72	90.00	89.88	6,950.00	3,913.00	1.88	900.00	900.00	6.37	474,207.68	625,576.80
EOC-7463.72'MD,90.00°INC,89.88°AZI,6950.00'TVD,6.37°DLS, 900.00'VS, 1.88'N, 900.00'E										
7,500.00	90.00	89.88	6,950.00	3,913.00	1.96	936.28	936.28	0.00	474,207.76	625,613.08
7,600.00	90.00	89.88	6,950.00	3,913.00	2.17	1,036.28	1,036.28	0.00	474,207.97	625,713.08
7,700.00	90.00	89.88	6,950.00	3,913.00	2.38	1,136.28	1,136.28	0.00	474,208.18	625,813.08
7,800.00	90.00	89.88	6,950.00	3,913.00	2.59	1,236.28	1,236.28	0.00	474,208.39	625,913.08
7,900.00	90.00	89.88	6,950.00	3,913.00	2.80	1,336.28	1,336.28	0.00	474,208.60	626,013.08
8,000.00	90.00	89.88	6,950.00	3,913.00	3.01	1,436.28	1,436.28	0.00	474,208.81	626,113.08
8,100.00	90.00	89.88	6,950.00	3,913.00	3.22	1,536.28	1,536.28	0.00	474,209.02	626,213.08
8,200.00	90.00	89.88	6,950.00	3,913.00	3.43	1,636.28	1,636.28	0.00	474,209.23	626,313.08
8,300.00	90.00	89.88	6,950.00	3,913.00	3.64	1,736.28	1,736.28	0.00	474,209.44	626,413.08
8,400.00	90.00	89.88	6,950.00	3,913.00	3.85	1,836.28	1,836.28	0.00	474,209.65	626,513.08
8,500.00	90.00	89.88	6,950.00	3,913.00	4.06	1,936.28	1,936.28	0.00	474,209.86	626,613.08
8,600.00	90.00	89.88	6,950.00	3,913.00	4.26	2,036.28	2,036.28	0.00	474,210.06	626,713.08
8,700.00	90.00	89.88	6,950.00	3,913.00	4.47	2,136.28	2,136.28	0.00	474,210.27	626,813.08
8,800.00	90.00	89.88	6,950.00	3,913.00	4.68	2,236.28	2,236.28	0.00	474,210.48	626,913.08
8,900.00	90.00	89.88	6,950.00	3,913.00	4.89	2,336.28	2,336.28	0.00	474,210.69	627,013.08

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**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)
9,000.00	90.00	89.88	6,950.00	3,913.00	5.10	2,436.28	2,436.28	0.00	474,210.90	627,113.08
9,100.00	90.00	89.88	6,950.00	3,913.00	5.31	2,536.28	2,536.28	0.00	474,211.11	627,213.08
9,200.00	90.00	89.88	6,950.00	3,913.00	5.52	2,636.28	2,636.28	0.00	474,211.32	627,313.08
9,300.00	90.00	89.88	6,950.00	3,913.00	5.73	2,736.28	2,736.28	0.00	474,211.53	627,413.08
9,400.00	90.00	89.88	6,950.00	3,913.00	5.94	2,836.28	2,836.28	0.00	474,211.74	627,513.08
9,500.00	90.00	89.88	6,950.00	3,913.00	6.15	2,936.28	2,936.28	0.00	474,211.95	627,613.08
9,600.00	90.00	89.88	6,950.00	3,913.00	6.36	3,036.28	3,036.28	0.00	474,212.16	627,713.08
9,700.00	90.00	89.88	6,950.00	3,913.00	6.57	3,136.28	3,136.28	0.00	474,212.37	627,813.08
9,800.00	90.00	89.88	6,950.00	3,913.00	6.78	3,236.28	3,236.28	0.00	474,212.58	627,913.08
9,900.00	90.00	89.88	6,950.00	3,913.00	6.99	3,336.28	3,336.28	0.00	474,212.79	628,013.08
10,000.00	90.00	89.88	6,950.00	3,913.00	7.20	3,436.28	3,436.28	0.00	474,213.00	628,113.08
10,100.00	90.00	89.88	6,950.00	3,913.00	7.41	3,536.28	3,536.28	0.00	474,213.21	628,213.08
10,200.00	90.00	89.88	6,950.00	3,913.00	7.62	3,636.28	3,636.28	0.00	474,213.42	628,313.08
10,300.00	90.00	89.88	6,950.00	3,913.00	7.83	3,736.28	3,736.28	0.00	474,213.63	628,413.08
10,400.00	90.00	89.88	6,950.00	3,913.00	8.03	3,836.27	3,836.28	0.00	474,213.83	628,513.07
10,500.00	90.00	89.88	6,950.00	3,913.00	8.24	3,936.27	3,936.28	0.00	474,214.04	628,613.07
10,600.00	90.00	89.88	6,950.00	3,913.00	8.45	4,036.27	4,036.28	0.00	474,214.25	628,713.07
10,700.00	90.00	89.88	6,950.00	3,913.00	8.66	4,136.27	4,136.28	0.00	474,214.46	628,813.07
10,800.00	90.00	89.88	6,950.00	3,913.00	8.87	4,236.27	4,236.28	0.00	474,214.67	628,913.07
10,900.00	90.00	89.88	6,950.00	3,913.00	9.08	4,336.27	4,336.28	0.00	474,214.88	629,013.07
11,000.00	90.00	89.88	6,950.00	3,913.00	9.29	4,436.27	4,436.28	0.00	474,215.09	629,113.07
11,100.00	90.00	89.88	6,950.00	3,913.00	9.50	4,536.27	4,536.28	0.00	474,215.30	629,213.07
11,200.00	90.00	89.88	6,950.00	3,913.00	9.71	4,636.27	4,636.28	0.00	474,215.51	629,313.07
11,300.00	90.00	89.88	6,950.00	3,913.00	9.92	4,736.27	4,736.28	0.00	474,215.72	629,413.07
11,400.00	90.00	89.88	6,950.00	3,913.00	10.13	4,836.27	4,836.28	0.00	474,215.93	629,513.07
11,500.00	90.00	89.88	6,950.00	3,913.00	10.34	4,936.27	4,936.28	0.00	474,216.14	629,613.07
11,600.00	90.00	89.88	6,950.00	3,913.00	10.55	5,036.27	5,036.28	0.00	474,216.35	629,713.07

Company:	XTO	**Local Co-ordinate Reference:**	Well #50H
Project:	Eddy County	**TVD Reference:**	WELL @ 3037.00ft (19' KB)
Site:	Nash Unit	**MD Reference:**	WELL @ 3037.00ft (19' KB)
Well:	#50H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**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)
11,700.00	90.00	89.88	6,950.00	3,913.00	10.76	5,136.27	5,136.28	0.00	474,216.56	629,813.07
11,782.63	90.00	89.88	6,950.00	3,913.00	10.93	5,218.90	5,218.91	0.00	474,216.73	629,895.70

TD at 11782.63

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(N#50H) - plan hits target center - Point	0.00	0.00	6,950.00	10.70	5,218.90	474,216.500	629,895.700	32° 18' 10.935 N	103° 54' 46.515 W

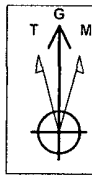
Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
6,050.00	6,050.00	0.00	0.00	KOP-6050.00'MD,0.00°INC,0.00°AZI,6050.00'TVD
7,463.72	6,950.00	1.88	900.00	EOC-7463.72'MD,90.00°INC,89.88°AZI,6950.00'TVD,6.37°DLS, 900.0(
11,782.63	6,950.00	10.93	5,218.90	TD at 11782.63

Checked By: _____ Approved By: _____ Date: _____

XTO ENERGY

Project: Eddy County
Site: Nash Unit
Well: #50H
Wellbore: OH
Plan: Plan #1 (#50H/OH)



Azimuths to Grid North
True North: -0.22°
Magnetic North: 7.60°

Magnetic Field
Strength: 48723.6snT
Dip Angle: 60.23°
Date: 10/27/2010
Model: IGRF200510

PATHFINDER®
A Schlumberger Company

SECTION DETAILS

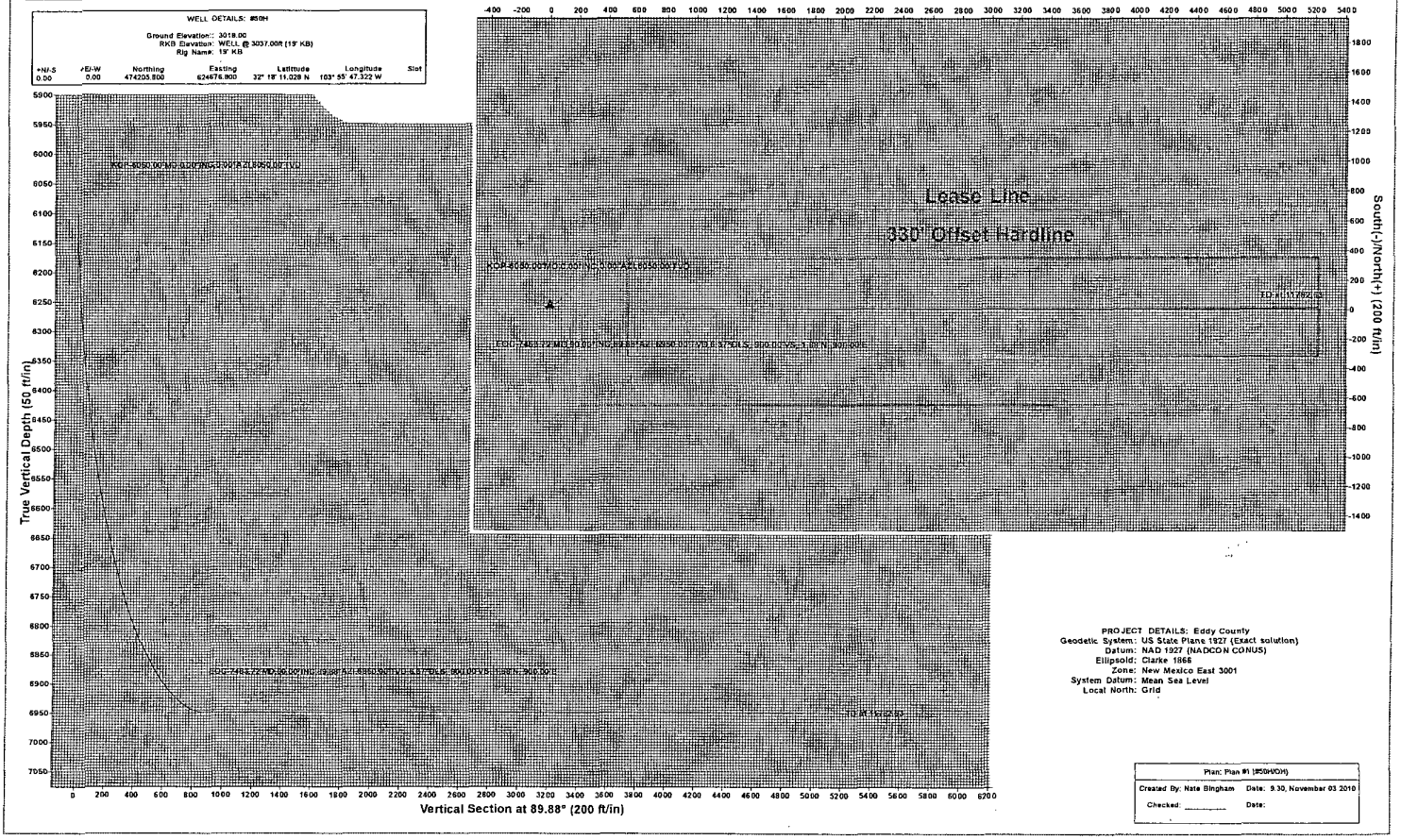
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6050.00	0.00	0.00	6050.00	0.00	0.00	0.00	0.00	0.00	
3	7463.72	90.00	89.88	6950.00	1.88	900.00	6.37	89.88	900.00	
4	11782.63	90.00	89.88	6950.00	10.93	5218.90	0.00	0.00	5218.91	PBHL(Nash50H)

WELL DETAILS: #50H

Ground Elevation:: 3019.00
RKB Elevation: WELL @ 3037.00ft (19' KB)
Rig Name: 19' KB

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	474205.800	624676.900	32° 19' 11.028 N	103° 55' 47.322 W	

West(-)/East(+) (200 ft/in)



True Vertical Depth (50 ft/in)

Vertical Section at 89.88° (200 ft/in)

South(-)/North(+) (200 ft/in)

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 (#50H/OH)	
Created By: Nate Bingham	Date: 9:30, November 03 2010
Checked: _____	Date:

GEOLOGICAL WELL PLAN & AFE REQUEST

OPERATOR:	XTO Energy Inc.				
EXISTING WELLS:					Ralph Nelson
WELL NAME:	NASH UNIT 50H			DATE: March 4, 2010	
LOCATION:	SHL: X= 624923.0	Y= 474252.0	1980' FSL 50 FWL	23S 30E Section 18 SW 1/4	
	BHL: X= 624923.0	Y= 474181.0	1980' FSL 340' FEL	23S 30E Section 18 SE 1/4	
				EDDY COUNTY, NM	

ENG. TJ MIDKIFF LND. STEVE COBB **CLASS H**

PROSPECT:BASAL BYCN E5 ZONE Delaware Mtn Horizontal Drillwell HBP

EST T.D.: 11,700 MD SURFACE OWNER: BLM??

drill lateral at 90 degrees azimuth to TD with 88.6 inclination

Land well at 900' VS at -3918 or 6976' MD (3058' KB)

DEVELOPMENT: XX NEW WELL: XX OIL with GAS: XX

MUD LOG:

DEPTH ON	DEPTH OFF	LOGGING COMPANY	TYPE UNIT
500' before KO	TD	TBD	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	6:30 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

Logging Company	TYPE LOGS	WELL DEPTH
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	Consultant	Company
	XX		

SUPERVISION:

Geologist:	**Ralph Nelson**	**Office:**	**(817) 885-3440**
If no answer, leave message, wait 15 minutes before calling engineer below		**Cell:**	**(432) 528-7777**
Engineer:	**T.J. Midkiff**	**Office:**	**(817) 885-2823**
		Cell:	**(817) 312-3358**

EXPECTED FORMATION TOPS: K.B. Elevation (feet): 3058' (Est.: XX Actual: _____)

Formation	Subsea Depth (feet)	Well Depth (feet)*	
Rustler/Salado	2,793'	265'	TVD
Base Castile	-161'	3,219'	TVD
Bell Canyon	-202'	3,260'	TVD
Cherry Canyon	-1,063'	4,121'	TVD
Brushy Canyon	-2,662'	5,720'	TVD
Basal Brushy Canyon*	-3,677'	6,735'	TVD
Brushy Canyon E5 zone*	-3,847'	6,905'	TVD
Target Interval*	-3,892'	6,950'	**TVD**

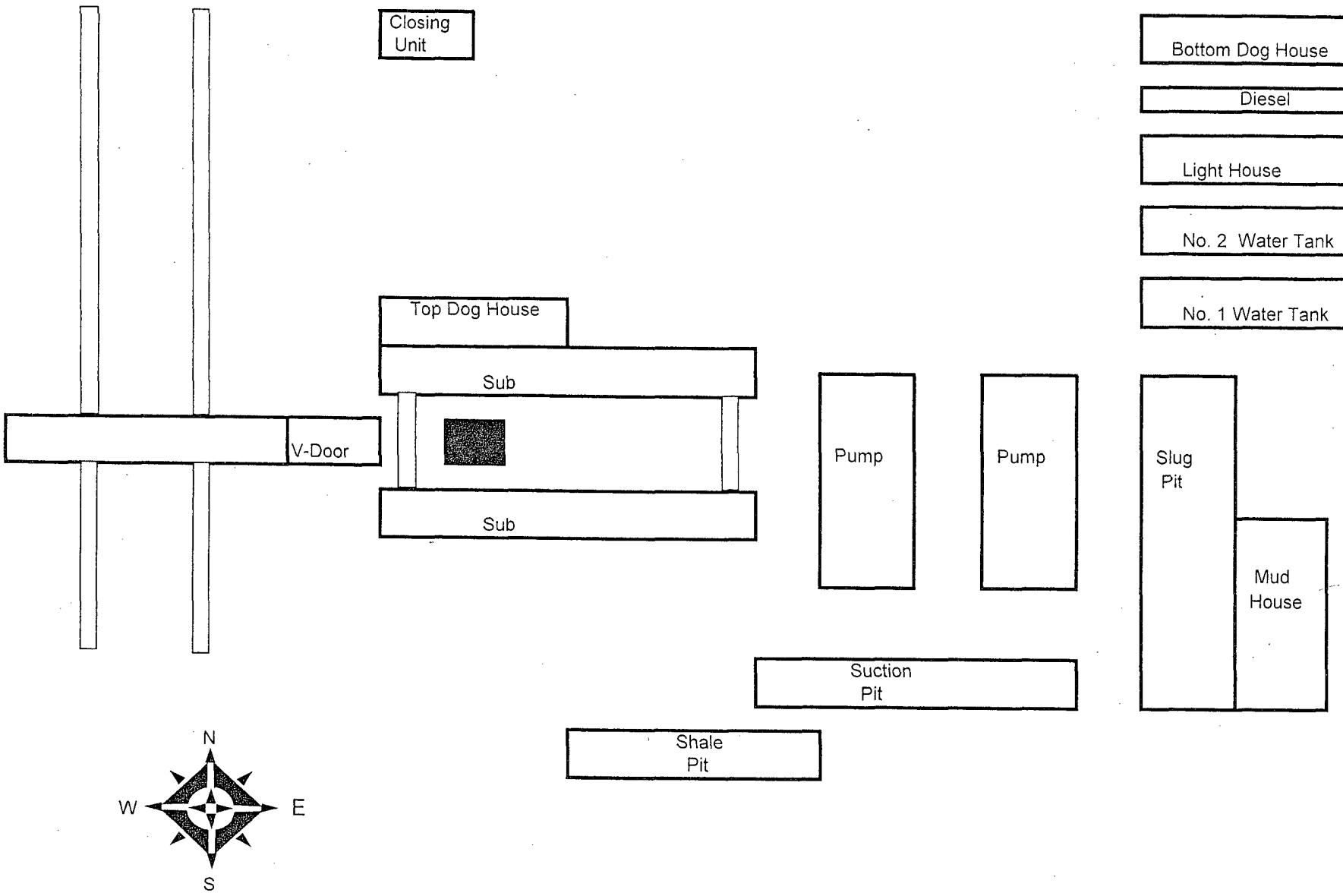
* At 0 vertical section

USE SUBSEA ONLY FOR CALCULATIONS

Special Instructions: Well has been planned to land approx. 900 feet from surface.

AFE 1006075

ID 115811

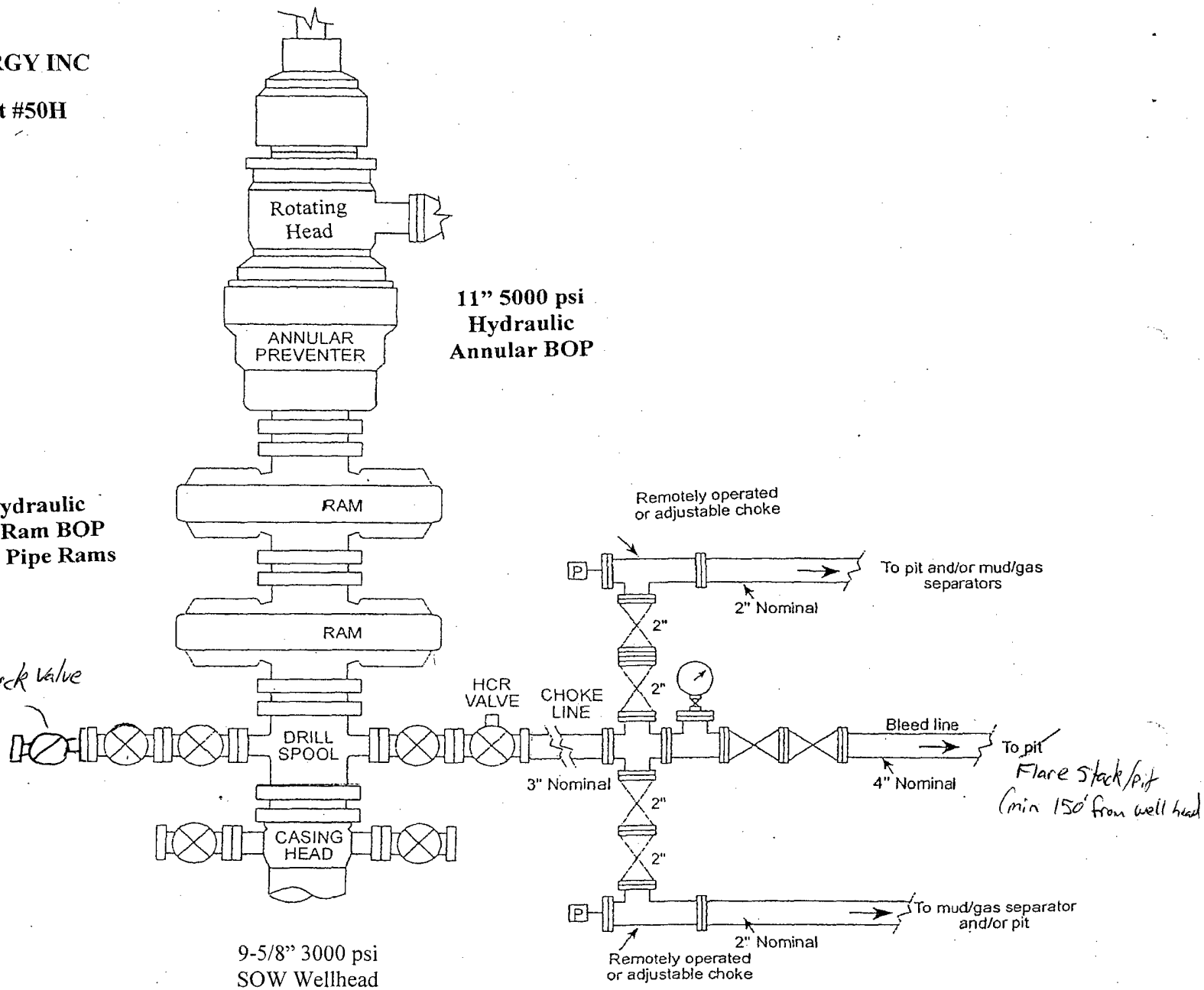


McVay Drilling Rig No. 5

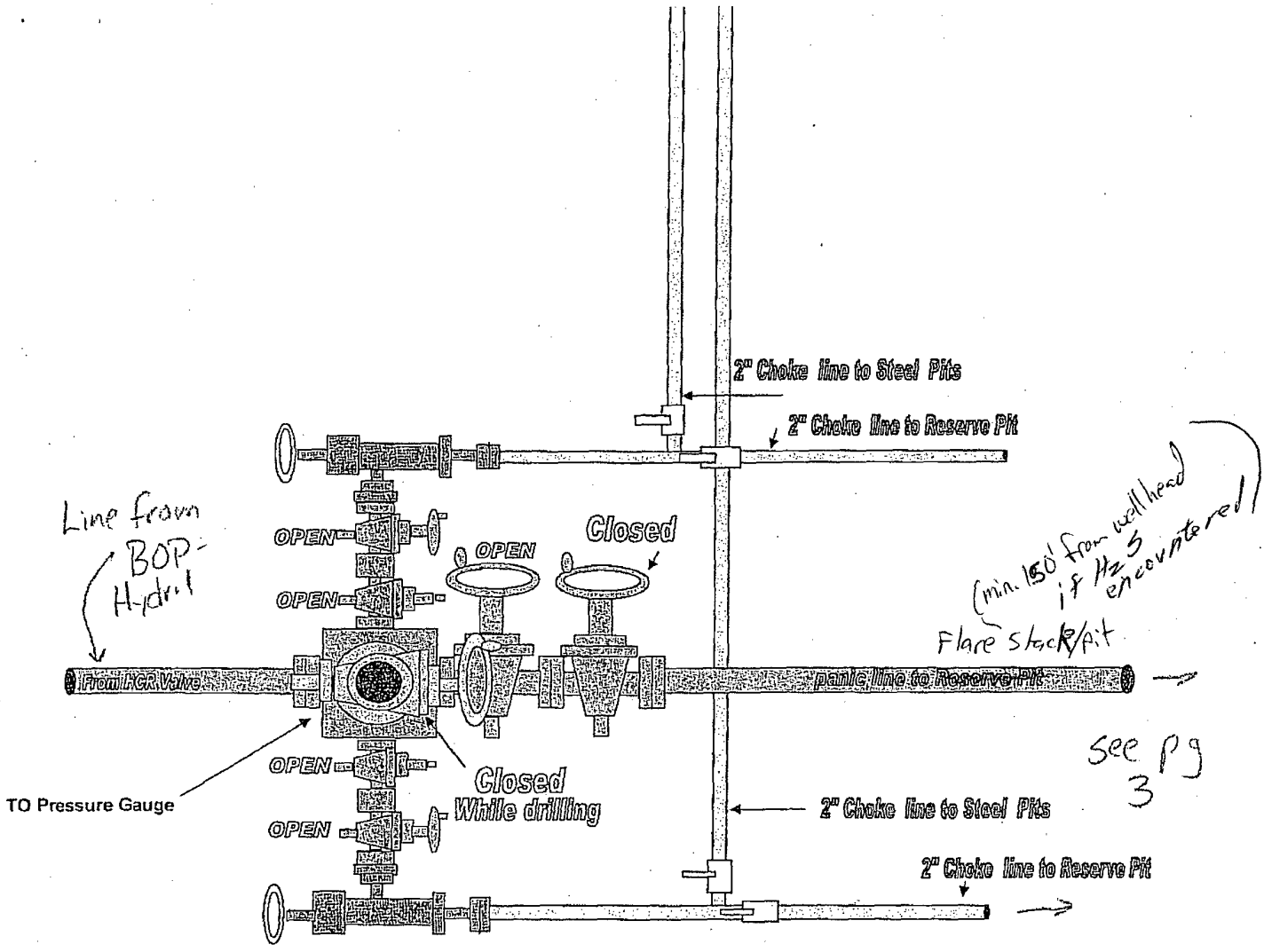
Nash Unit # 50H

XTO ENERGY INC

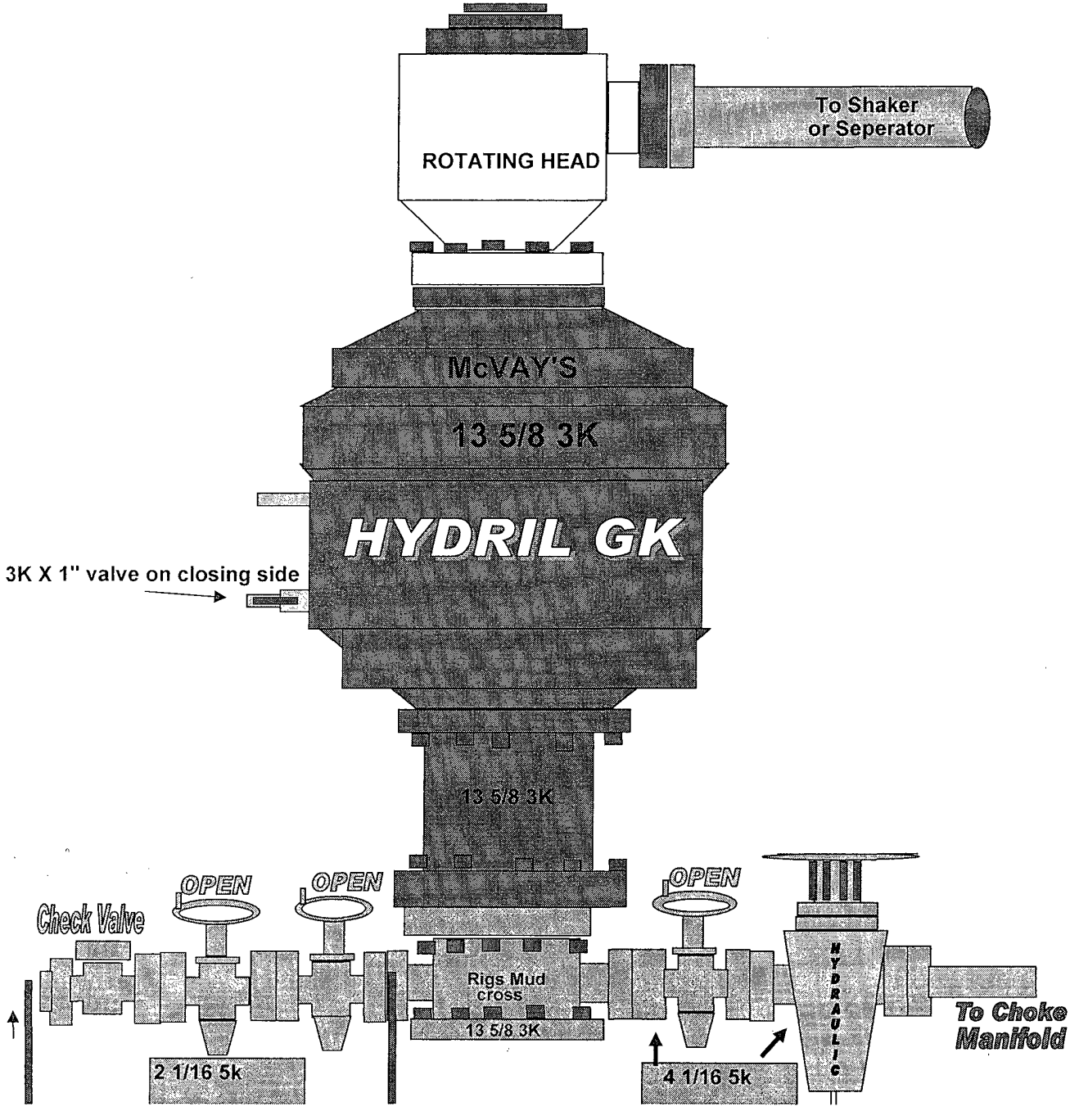
Nash Unit #50H



5000 psi Working Pressure
BOPE Configuration and Choke Manifold


2" Choke line to Steel Pits
2" Choke line to Reserve Pit
Line from BOP-Hydril
OPEN
OPEN
OPEN
Closed
(min. 150' from wellhead if H2S encountered)
Flare Stack/Pit
From HCR Valve
panic line to Reserve Pit
See Pg 3
TO Pressure Gauge
OPEN
OPEN
Closed While drilling
2" Choke line to Steel Pits
2" Choke line to Reserve Pit

McVay Rig #7,5


ROTATING HEAD
To Shaker
or Seperator
McVAY'S
13 5/8 3K
HYDRIL GK
3K X 1" valve on closing side
13 5/8 3K
OPEN
OPEN
OPEN
Check Valve
Rigs Mud
cross
13 5/8 3K
HYDRAULIC
To Choke
Manifold
2 1/16 5k
4 1/16 5k