

CMD : ONGARD 07/11/03 14:15:44  
OG6C101 C101-APPLICATION FOR PERMIT TO DRILL OGOMES -TPSM

OGRID Idn : 167067 API Well No: 30 45 31602 APD Status(A/C/P): A  
Opr Name, Addr: XTO ENERGY, INC. Aprvl/Cncl Date : 03-21-2003  
2700 FARMINGTON AVENUE  
BUILDING K, SUITE 1  
FARMINGTON, NM 87401

Prop Idn: 22845 UTE MOUNTAIN TRIBAL L Well No: 3

	U/L	Sec	Township	Range	Lot	Idn	North/South	East/West
Surface Locn	: N	24	32N	14W			FTG 660 F S	FTG 1785 F E
OCD U/L	: N		API County	: 45				

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): G Cable/Rotary (C/R) : R  
Lease typ(F/S/P/N/J/U/I): U Ground Level Elevation : 6730

State Lease No: Multiple Comp (S/M/C) : S  
Prpsd Depth : 9425 Prpsd Frmtn : UTE DOME PARADOX

I6504:UNLT IS IN TRACT U00. ENTER DATA TO MODIFY.  
PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 PF08 PF09 PRINT PF10 C102 PF11 HISTORY PF12

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

SUBMIT IN TRIPPLICATE\*  
(Other instructions on reverse side)

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1a. TYPE OF WORK  
**DRILL**  **DEEPE**

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER \_\_\_\_\_

2. NAME OF OPERATOR  
**XTO Energy Inc.**

3. ADDRESS AND TELEPHONE NO.  
**2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface  
**660' FSL & 1785' FEL Sec 24, T32N, R14W**  
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.  
**MOO-C-14-20-627 Tribal L**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
**Ute Mountain Ute Tribe**

7. UNIT AGREEMENT NAME  
**22845**

8. FARM OR LEASE NAME, WELL NO.  
**Ute Mountain Tribal #3**  
"L"

9. API WELL NO.  
**30-045-31602**

10. FIELD AND POOL, OR WILDCAT  
**Ute Dome Paradox**

11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA  
**Sec 24, T32N, R14W**

12. COUNTY OR PARISH  
**San Juan**

13. STATE  
**NM**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**Approx 10 mile NW of the La Plata, NM Post Office**

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) **660'**

16. NO. OF ACRES IN LEASE  
**999**

17. NO. OF ACRES ASSIGNED TO THIS WELL  
**691.71' Sec 24**

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. **2,500'**

19. PROPOSED DEPTH  
**9,425'**

20. ROTARY OR CABLE TOOLS  
**Rotary**

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
**6,730' Ground Level**

22. APPROX. DATE WORK WILL START\*  
**Winter 2002**

Approval of this agreement does not warrant or certify that the operator, thereof and other holders of operating rights hold legal or equitable title to those rights in the subject lease which are committed hereon.

**RECEIVED**  
**JUL 18 2002**  
Bureau of Land Management  
Durango Colorado

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12/-1/4"	8-5/8" J-55	24.0#	850'	360 sx Type III
7-7/8"	5-1/2" J-55	17.0#	9,425'	790 sx in two stages

Venting / Flaring approved for 80 cpm per NTL-4A

Set 8-5/8", 24.0#, J-55 STC surface csg @ 850'. Cmt w/approx 220 sx Type III cmt w/additives followed by 100 sx Type III cement w/additives. Attempt to circ cmt to surface.

Install & test BOP equipment as required. Drill 7-7/8" hole to approx 9,425'.

Set 5-1/2", 17.0#, J-55, LTC production csg @ 9,425' TVD. Cmt first stage w/approx 490 sx Class H cmt w/additives. TOC designed for 6,000'. Cmt second stg w/200 sx Lightweight cmt w/additives followed by 100 sx Class B cmt w/additives. Final cement volumes will be obtained fr/caliper log + 30% excess. Attempt to circ cmt to surface (second stg).

**HOLD C104 FOR NLSL**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposals to deepen, give data on present productive zone and proposed new productive zone. If proposals to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *JW Patton* TITLE Drilling Engineer DATE 7/10/02

(This space for Federal or State office use)

PERMIT NO. **SEE ATTACHED CONDITIONS OF APPROVAL** APPROVAL DATE \_\_\_\_\_ APPROVED FOR A PERIOD NOT TO EXCEED 1 YEAR.

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:

APPROVED BY *1st Mike General* TITLE Acting Field Office Manager DATE MAR 21 2003

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

DISTRICT I  
1825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-31602	<sup>2</sup> Pool Code 86760	<sup>3</sup> Pool Name UTE DOME PARADOX
<sup>4</sup> Property Code 2845	<sup>5</sup> Property Name UTE MOUNTAIN TRIBAL "L"	
<sup>6</sup> GRID No. 167067	<sup>7</sup> Operator Name XTO ENERGY INC.	<sup>8</sup> Well Number 3
		<sup>9</sup> Elevation 6730'

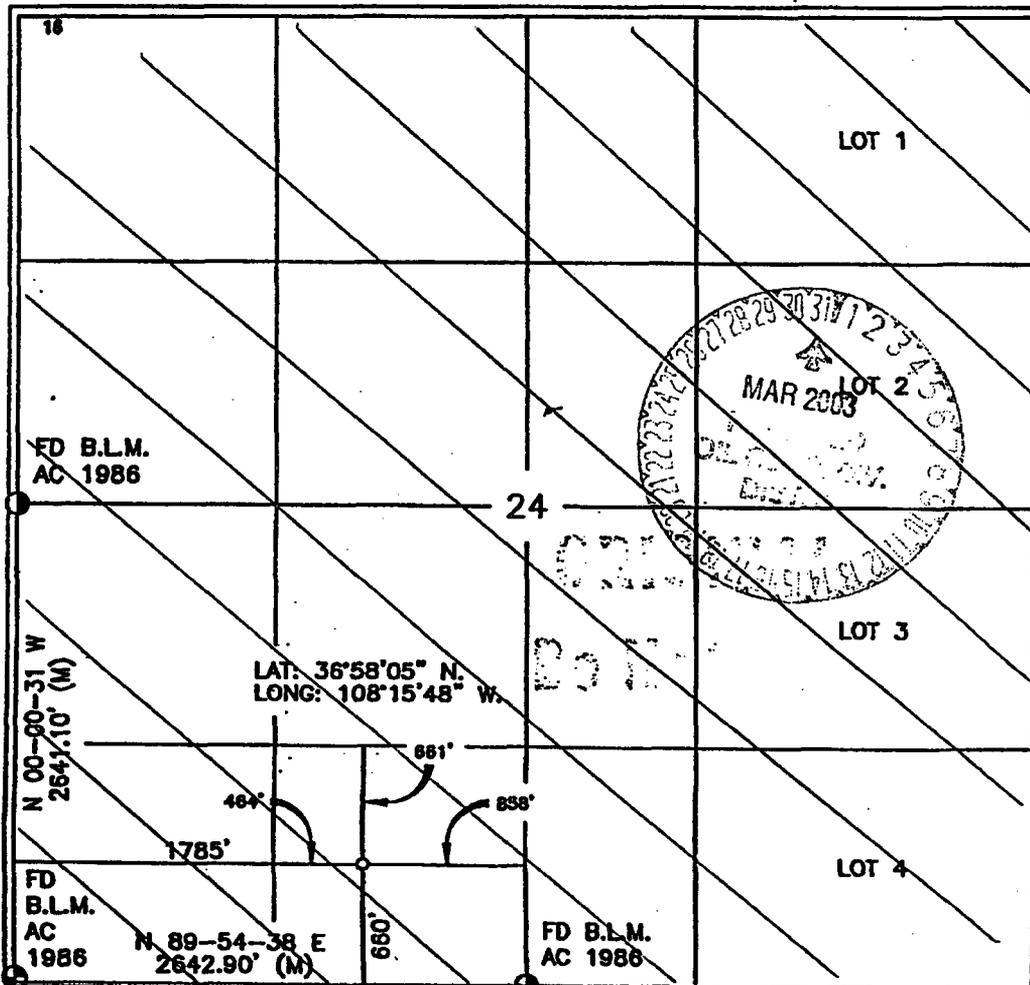
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	24	32-N	14-W		660'	SOUTH	1785'	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
					<sup>12</sup> Dedicated Acres 691.71	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Jeffrey W Patton  
 Printed Name: JEFFREY W PATTON  
 Title: DRILLING ENGINEER  
 Date: 7-10-02

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.

Date of Survey: 8-22-02  
 Signature of Registered Professional Surveyor: [Signature]  
 Certificate Number: 8894

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

DEC 13 2002

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.  
MOO-C-14-20-627 TRIBAL L

6. If Indian, Allottee or Tribe Name

UTE MTN UTE TRIBE

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

8. Well Name and No.  
UTE MTN TRIBAL L #3

9. API Well No.  
30-045-31602

10. Field and Pool, or Exploratory Area  
UTE DOME PARADOX

11. County or Parish, State  
SAN JUAN NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
XTO Energy Inc.

3a. Address 3b. PhoneNo. (include area code)  
2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401505-324-1090

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
660' FSL & 1785' FEL UL N SEC 24, T32N, R14W

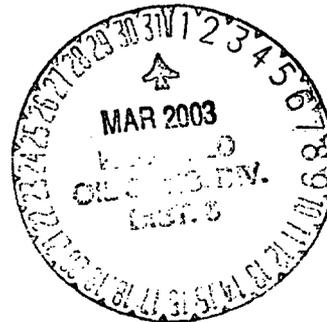
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximateduration thereof. If the proposal is to deepen directionally or recomplete 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

XTO Energy Inc. has modified the casing design that was originally proposed in the APD for the above mentioned well. Please replace the original proposed drilling procedure with the revised procedure attached.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject lease which are committed hereto...



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed) JEFF PATTON *Jeff Patton*

Title DRILLING ENGINEER  
Date 12/11/02

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by */s/ Mike Innes*

Acting Field Office Manager MAR 21 2003

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

Title 18 U.S.C. Section 1001, makes 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.

**XTO ENERGY INC.**  
**Ute Mountain Tribal "L" #3**  
**Proposed Drilling Procedure**  
**December 10, 2002**

**Surface Location:** 660' FSL & 1785' FWL, Sec 24, T32N, R14W County: San Juan State: New Mexico

**PROJECTED TOTAL VERTICAL DEPTH:** ±9,425'  
**GR ELEV:** 6,730'

**OBJECTIVE:** Ute Dome Paradox  
**EST KB ELEV:** 6,742' (12' AGL)

**1. GENERALIZED DRILLING PROCEDURE:**

- A. MIRT. Drill a 12-1/4" hole to ±850', run and cement 8-5/8", 24.0#, J-55, STC casing. Circulate cement to surface.
- B. NU wellhead and BOP equipment. Test stack, wellhead, choke manifold and casing to 250/1,000 psig.
- C. Drill an 7-7/8" hole to approximately TD (±9,425'). Note: Due to geological structure it is possible that directional drilling tools (mud motor with MWD) may be required to maintain a straight (vertical) hole.
- D. Log well as prescribed by geological department.
- E. Run 5-1/2", 17.00#, J-55, LT&C production casing. Set DV tool just below the Morrison Formation. Attempt to cement the first stage from TD to ±6,000'. Attempt to cement the second stage from the DV tool to surface. RDRT and prepare well for completion.

**2. MUD PROGRAM:**

INTERVAL	0' to 850'	850' to 8,000'	8,000' to TD	Logging @ TD
HOLE SIZE	12-1/4"	7-7/8"	7-7/8"	7-7/8"
MUD TYPE	FW/Gel/Lime	FW/Polymer/LCM	LSND	LSND
WEIGHT	8.6-8.8	8.4-8.7	8.8	8.8-9.0
VISCOSITY	28-32	28-32	42-60	100-120
WATER LOSS	NC	NC	8-10	8-10

**Remarks:** Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

**3. CASING PROGRAM:**

Surface Casing: 8-5/8" casing to be set at ± 850' in ±8.8 ppg mud .

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-850'	850'	24.0#	J-55	STC	1370	2950	247	8.097	7.972	3.44	4.62	12.0

Optimum makeup torque for 24.0#, J-55, STC casing is 2,440 ft-lbs (Min - 1,830 ft-lbs, Max - 3,050 ft-lbs).

Production Casing: 5-1/2" casing to be set at TD in ±9.0 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-8,825'	8,825'	17.0#	J-55	LTC	4910	5320	247	4.892	4.767	1.19	2.13	1.54
8,825'-9,425'	600'	17.0#	N-80	LTC	6280	7740	348	4.892	4.767	1.42	3.1	34

Optimum makeup torque for 17.0#, J-55, LT&C casing is 2,470 ft-lbs (Min - 1,850 ft-lbs, Max - 3,090 ft-lbs).

**4. WELLHEAD:**

- A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 3,000 psig WP (6,000 psig test) with 4-1/2" ID (designed to slip over 4-1/2" OD) weld-on, slip-on body and 7-1/16" (3,000 psig WP) flange on top.

**5. CEMENT PROGRAM:**

- A. Surface: 8-5/8", 24.0#, J-55, STC casing to be set at ± 850'.

Lead: 260 sx of Type III (equivalent to Class "C") cement containing 8% gel, 2% CaCl<sub>2</sub>, ¼ pps celloflake, mixed at 12.5 ppg, 2.19 ft<sup>3</sup>/sk, & 12.40 gal wtr/sk.

Tail: 100 sx of Type III (equivalent to Class "C") cement containing 2% CaCl<sub>2</sub>, ¼ pps celloflake mixed at 14.5 ppg, 1.40 cuft/sx & 6.5 gals wtr/sx.

*Total slurry volume is 710 ft<sup>3</sup>, ±100% excess of calculated annular volume to 850'.*

- B. Production: 5-1/2", 17.0#, J-55 & N-80, LT&C casing to be set at ±9,425' MD. DV Tool Set @ 3,500'.

**First Stage:**

Lead: 490\* sx of Class "H" cement containing 6% gel, ¼ pps celloflake, 0.5% fluid loss, 0.25% dispersant & 2% Phenoseal (LCM), mixed at 14.1 ppg, 1.55 ft<sup>3</sup>/sk, 7.88 gal wtr/sk.

**Second Stage:**

**Lead:** 200\* sx of Class "B" cement containing 2% extender, 1/4 pps celloflake & 2% CaCl<sub>2</sub> mixed at 11.4 ppg, 2.82 cuft/sx & 17.5 gal wtr/sx.

**Tail:** 100\* sx of Class "B" cement containing 2% extender, 1/4 pps celloflake & 2% CaCl<sub>2</sub> mixed at 12.5 ppg, 2.06 cuft/sx & 11.8 gal wtr/sx.

*Total estimated slurry volume for the 4-1/2" production casing is 1,529 ft<sup>3</sup>.*

**\* This volume includes 30% excess over the gauge hole volume. Actual cement volume will be based on log caliper volume plus 30% excess to circulate cement to the surface.**

- **Note: The slurry mixture may change slightly based upon final design, but our plan is to circulate cement to surface from TD.**

**6. DRILLING HAZARDS:**

- A. Deviation should be watched carefully from below surface casing. Due to geological structure it is possible that directional drilling tools may be required to maintain a straight (vertical) hole.
- B. Hydrogen Sulfide Gas (H<sub>2</sub>S) could be encountered at this depth (±8,300'), since the Paradox formation will be penetrated.
- C. Seepage and/or lost circulation could be encountered below surface casing, though there is no indication that the problem should be severe.

**7. LOGGING PROGRAM:**

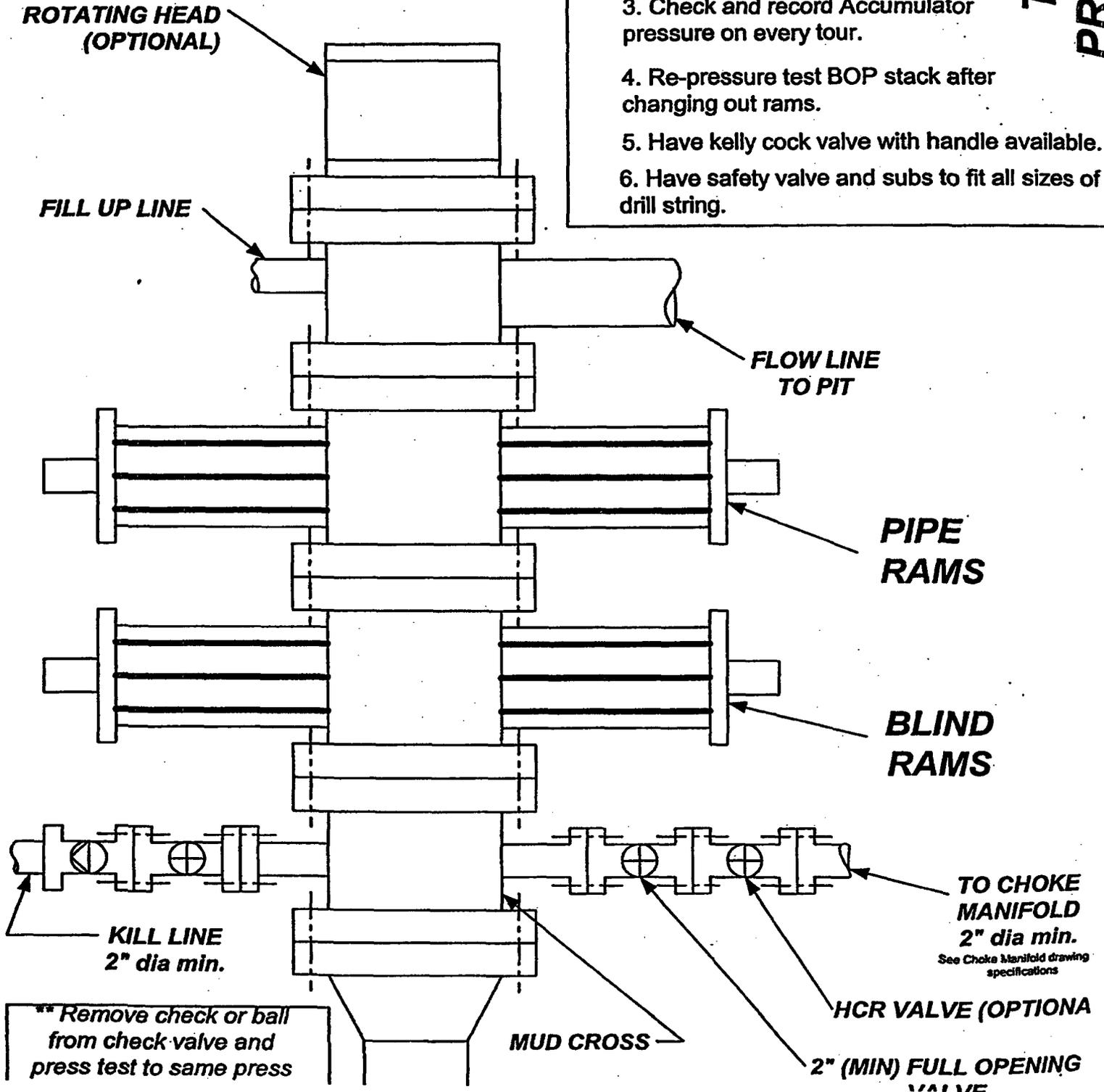
- A. Mud Logger: A mud logger will be brought on between 2,200'-8,825'. The mud logger will remain on the hole until TD.
- B. Open Hole Logs as follows (logging company to be determined):  
Dual Induction/SFL/GR/Cal from TD (±9,425') to bottom of surface casing.  
CNL/LDT/GR/Cal/Pe/Sonic from TD (±9,425') to 2,000'.  
FMI log from 8,400'-9,200' & 3,100'- 3,500' (Actual depth and interval will be determined from logs).

8. **FORMATION TOPS (estimated):** (Note: Formation tops are *estimated*. Due to complex geological structure (faulting), formation tops will be determined from actual well logs. Actual formation tops will be reported on the completion report.)

Formation	Sub Surface Depth	Well Depth (TVD)
Gallup SS	4448'	2297'
Greenhorn LS	3727'	3018'
Graneros Shale	3670'	3075'
First Dakota SS	3604'	3141'
Burro Canyon SS	3427'	3318'
Morrison SS	3362'	3383'
Junction Creek	2904'	3841'
Summerville	2479'	4266'
Todilito	2395'	4350'
Entrada SS	2381'	4364'
Carmel Formation	2257'	4488'
Wingate SS	2227'	4518'
Chinle Formation	1890'	4855'
Shinarump Congl	1278'	5467'
Moenkopi Formation	1124'	5621'
Cutler Group	847'	5898'
Hermosa Group	-721'	7466'
Paradox Formatiom	-1555'	8300'
Ismay Member*	-1719'	8464'
Desert Creek Member*	-1885'	8630'
Akah Member*	-2006'	8751'
Baker Creek Member*	-2201'	8946'
Alkali Gulch Member	-2447'	9192'
Projected TD	-2680'	9425'

\* Available pressure data from the off-set wells indicate that the BHP should  $\pm 2,500$  psig.

# BOP SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE



1. Test BOP after installation:  
 Pressure test BOP to 200-300 psig (low pressure) for 5 min.  
 Test BOP to Working Press or to 70% internal yield of surf csg (10 min).
2. Test operation of (both) rams on every trip.
3. Check and record Accumulator pressure on every tour.
4. Re-pressure test BOP stack after changing out rams.
5. Have kelly cock valve with handle available.
6. Have safety valve and subs to fit all sizes of drill string.

**TESTING PROCEDURE**

**\*\* Remove check or ball from check valve and press test to same press**