Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: **NMSF-078641**

6. If Indian, Allottee or Tribe Name: **N/A**

1a. Type of Work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.: **N/A**

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

8. Lease Name and Well No.: **Berger A 1 E**

2. Name of Operator: **XTO Energy Inc.**

9. API Well No.: **30-045- 31302**

3a. Address: **2700 Farmington Ave., Bldg. K-1 Farmington, NM 87401**

3b. Phone No. *(include area code)*: **(505) 324-1090**

10. Field and Pool, or Exploratory: **Gallegos Gallup & Basin Dakota**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: **1700' FNL & 955' FEL**

At proposed prod. zone: **Same**

11. Sec., T., R., M., or Blk. and Survey or Area: **H 21-26n-11w NMPM**

14. Distance in miles and direction from nearest town or post office*: **16 air miles S of Bloomfield, New Mexico**

12. County or Parish: **San Juan**

13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
1,685'	1,600	80 (Gall: SENE) & 320 (Dak.: E2)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
2,127'	6,450'	BLM nation wide: 57 91 73
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
6,274' ungraded	May 1, 2003	12 days to drill

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.

Comments

JUN 2005
OIL CONS. DIV.
DIST. 3

cc: BIA, BLM, NAPI, OCD (via BLM), Patton, Tribe

25. Signature	Name *(Printed/Typed)*	Date
Brian Wood	Brian Wood	11-02-02

Title: **Consultant** Phone: **505 466-8120** FAX: **505 466-9682**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Manuel Gonzales AFM		6-21-05

Title | Office: FFO

Application approval does not warrant or certify the 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.

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.

NMOCD

DISTRICT I
1625 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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-31302	26980 & 71599	GALLEGOS GALLUP & BASIN DAKOTA

[4] Property Code	[5] Property Name	[6] Well Number
22662	BERGER A	1E

[7] OGRID No.	[8] Operator Name	[9] Elevation
167067	XTO ENERGY INC.	6274'

[10] Surface Location

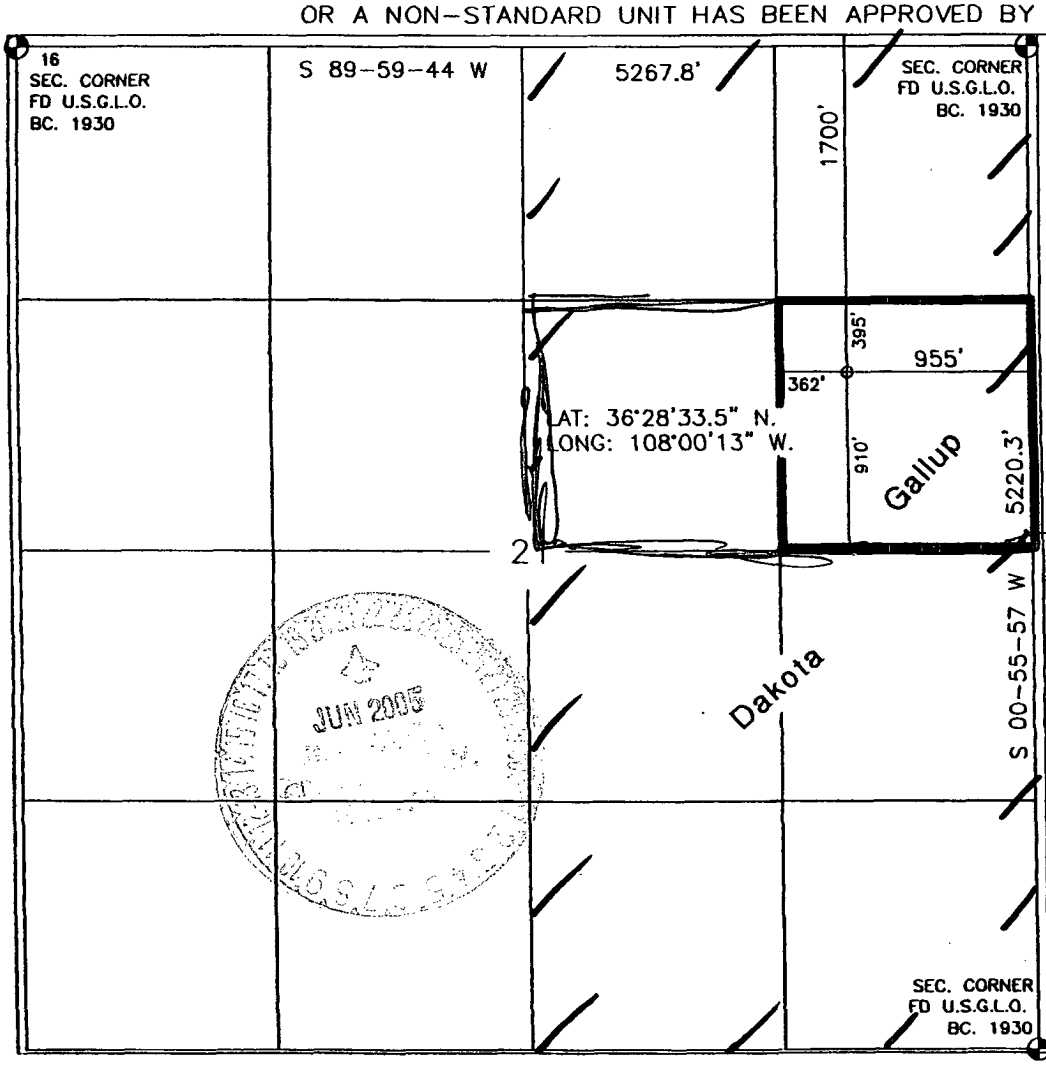
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	21	26-N	11-W		1700	NORTH	955	EAST	SAN JUAN

[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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 & 320			

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: B. Wood

Printed Name: BRIAN WOOD

Title: CONSULTANT

Date: NOV. 2, 2002

[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: APRIL 2002

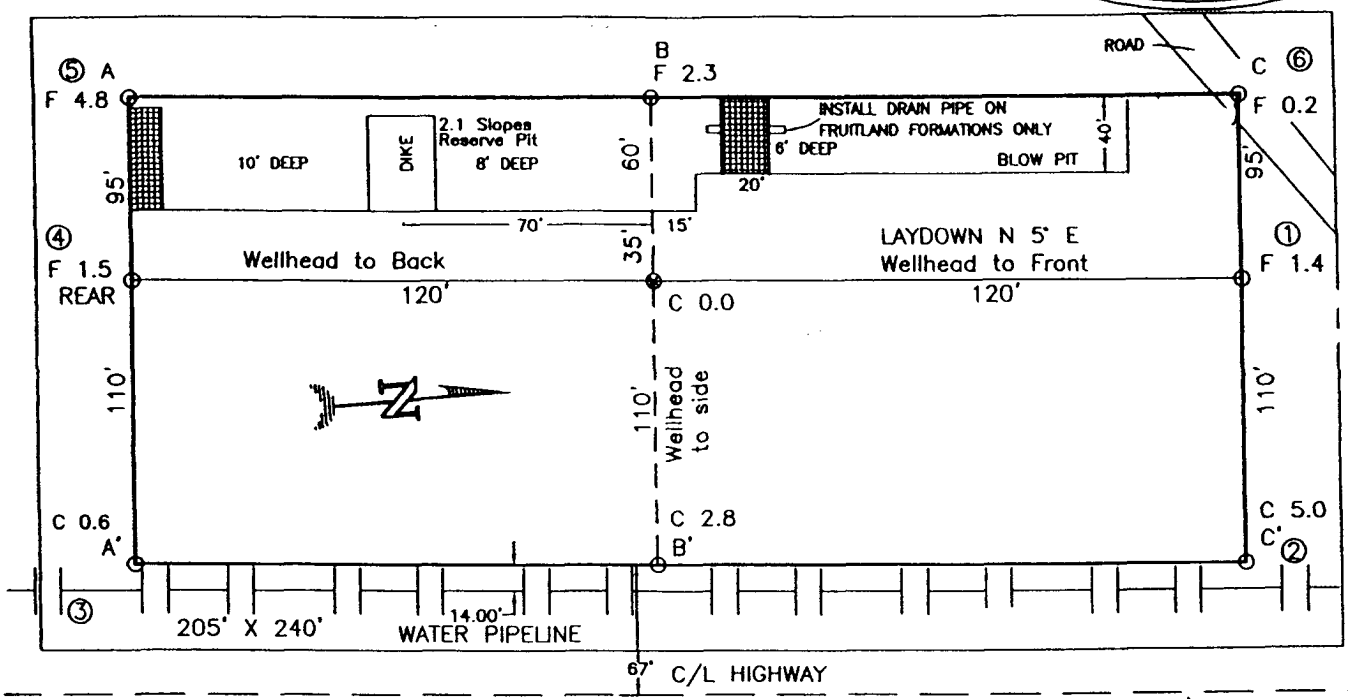
Signature and Seal of Professional Surveyor: DAVID A. JOHNSON, NEW MEXICO, 14827, REGISTERED PROFESSIONAL SURVEYOR

D. Johnson

Certificate Number: 14827

XTO ENERGY INC.
BERGER A No. 1E, 1700' FNL 955' FEL
SECTION 21, T26N, R11W, N.M.P.M., SAN JUAN COUNTY, N. M.
GROUND ELEVATION: 6274', DATE: APRIL 26, 2002

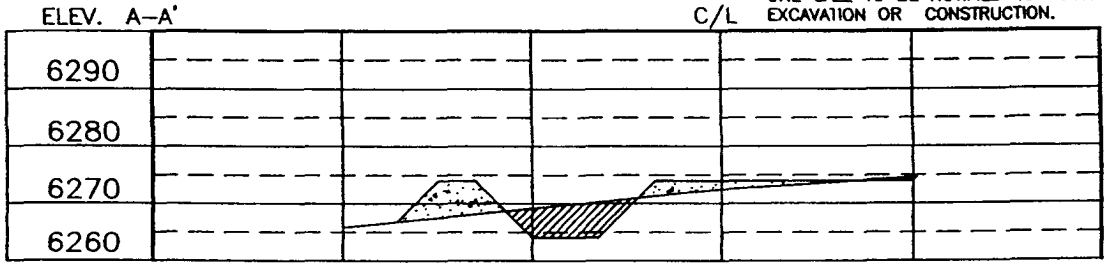
LAT. = 36°28'34"N
LONG. = 108°00'13"W



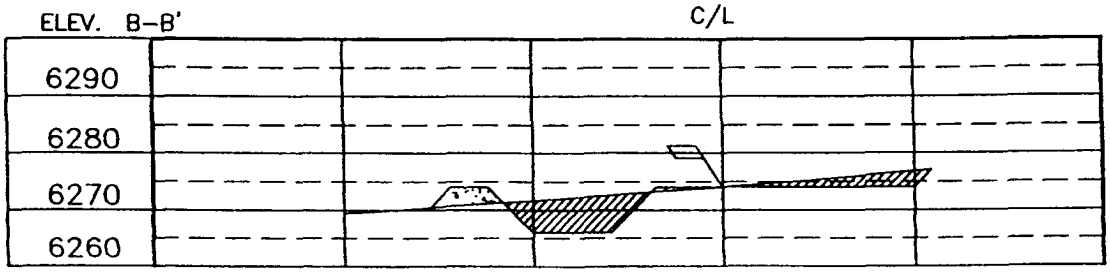
RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW – 3' WIDE AND 1' ABOVE SHALLOW SIDE).
BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

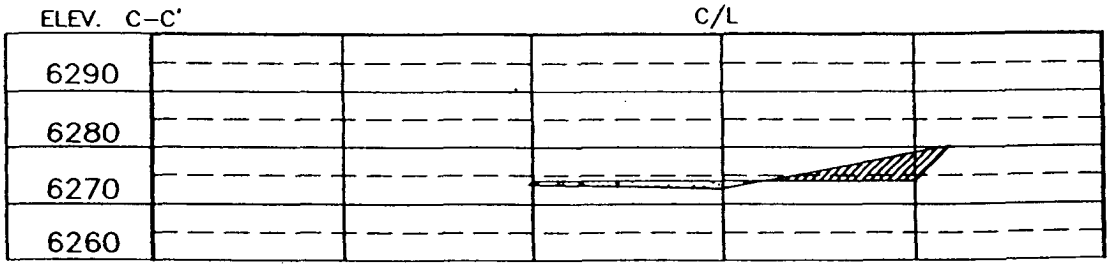
ELEV. A–A'



ELEV. B–B'



ELEV. C–C'



NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

DRAWN BY: A.G. ROW#: CR125 CADFILE: CR125CF8 DATE: 4/30/02

Daggett Enterprises, Inc.
Surveying and Oil Field Services
P. O. Box 15068 Farmington, NM 87401
Phone (505) 326-1772 Fax (505) 326-6019

XTO Energy Inc.
Berger A 1 E
1700' FNL & 955' FEL
Sec. 21, T. 26 N., R. 11 W.
San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation Name	GL Depth	KB Depth	Elevation
Nacimiento Fm	000'	12'	+6,274'
Ojo Alamo Ss	539'	551'	+5,735'
Kirtland Sh	649'	661'	+5,625'
Fruitland Fm	1,344'	1,356'	+4,930'
Pictured Cliffs Ss	1,589'	1,601'	+4,685'
Lewis Sh	1,889'	1,901'	+4,385'
Cliffhouse Ss	3,079'	3,091'	+3,195'
Menefee Sh	3,159'	3,171'	+3,115'
Pt. Lookout Ss	4,049'	4,061'	+2,225'
Mancos Sh	4,324'	4,336'	+1,950'
Gallup Ss	5,134'	5,146'	+1,140'
Greenhorn Ls	5,999'	6,011'	+275'
Graneros Sh	6,054'	6,066'	+220'
Dakota Ss	6,124'	6,136'	+150'
Morrison Fm	6,414'	6,426'	-140'
Total Depth (TD)*	6,450'	6,462'	-176'

* all elevations reflect the ungraded ground level of 6,274'

2. NOTABLE ZONES

Gas or Oil Zones	Water Zones	Coal or Uranium Zones
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Ojo Alamo	Menefee
Cliff House	Fruitland	Morrison
Menefee		
Pt. Lookout		
Dakota		

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP system to be used is not yet known. A typical 2,000 psi stack and manifold are on PAGES 3 and 4. Testing procedures are on the same pages.

4. CASING & CEMENT

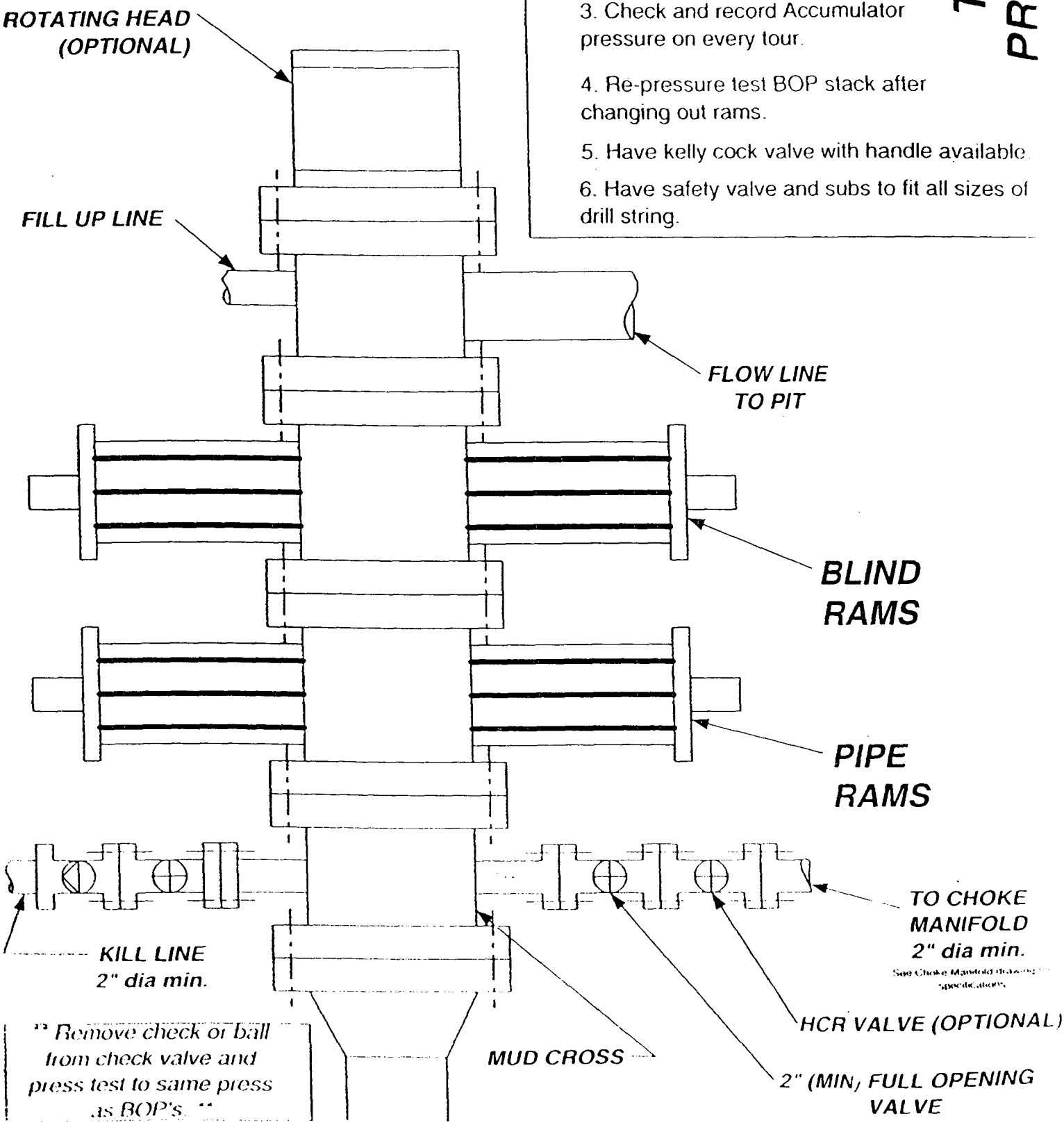
	Surface Casing	Production Casing
Interval	0' - ~~300'~~ 320'	0' - 6700'
Hole Diameter	12-1/4"	7-7/8"
Casing Diameter	8-5/8"	4-1/2"
Weight (pounds/foot)	24	10.5
Grade	J-55	J-55
Coupling	ST&C	ST&C
Collapse Rating (psi)	1370	4010
Burst Rating (psi)	2950	4790
Jt.-Str. (M-lbs)	244	132
I. D. (inches)	8.097	4.052
Drift (inches)	7.972	3.875
SF Coll	9.44	1.28
SF Burst	13.72	1.06
SF Ten	33.89	1.87
Centralizers	3-4	20

Casing head will be Larkin Fig 92 or its equivalent, 9" nominal, 2000 psi WP, (4000 psi test) with 8-5/8" 8 rounded thread on bottom, and 11-3/4" 8 rounded thread on top.

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

TESTING PROCEDURE

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.



** Remove check or ball from check valve and press test to same press as BOP's. **

Cross Timbers Operating Company

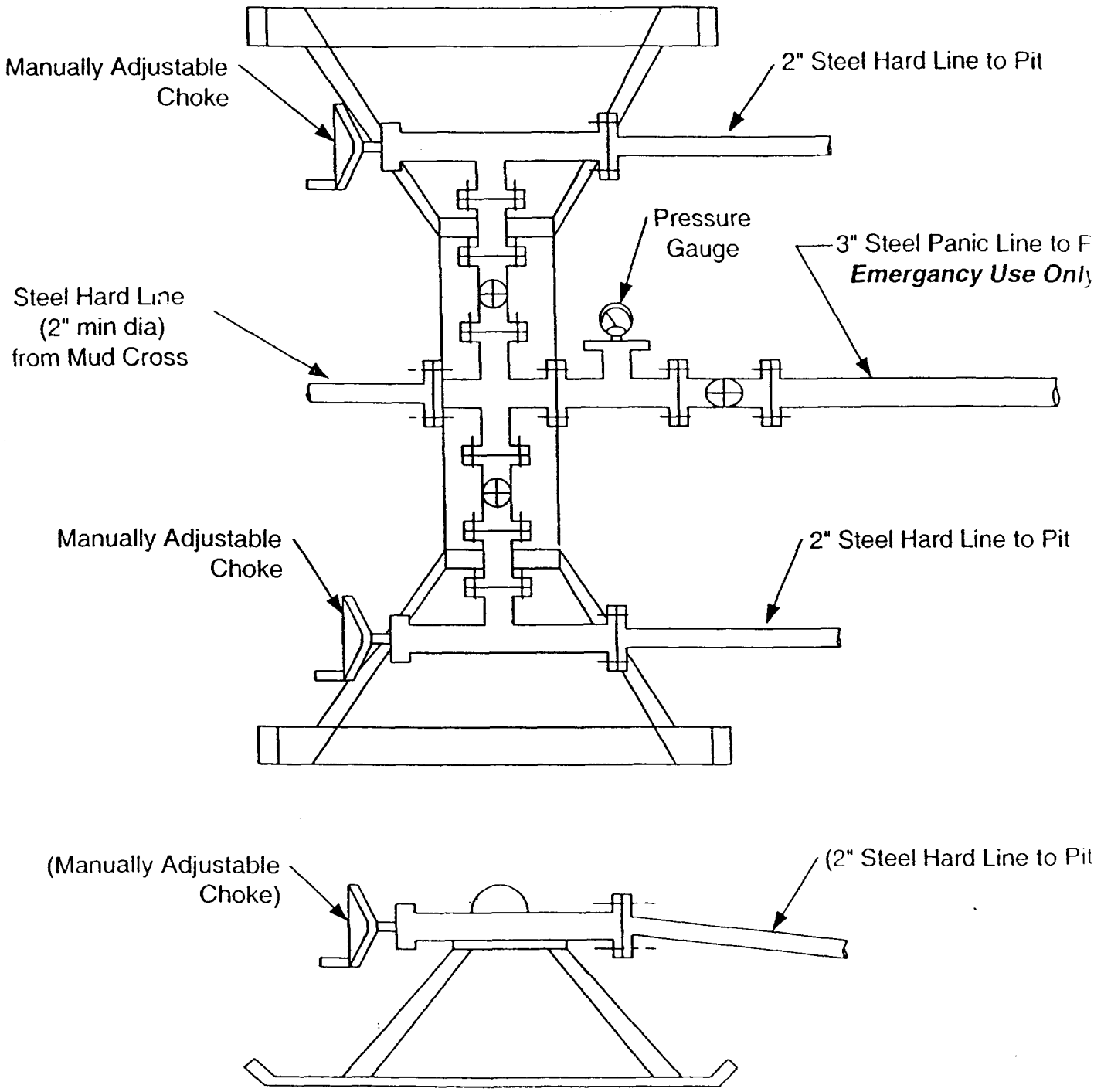
CHOKE MANIFOLD

SCEMATIC FOR DRILLING OPERATIONS

CLASS 1 (2M) NORMAL PRESSURE

TESTING PROCEDURE

1. Stake all lines from choke manifold to pit.
2. Pressure test choke monifold after installation.
3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.



Tubing head will be Larkin Fig 612 or its equivalent, 2000 psi WP (4000 psi test), 4-1/2" 8 rounded female thread on bottom, and 8-5/8" rounded thread on top.

Surface casing will be cemented to surface with ≈185 sacks Type III cement with 2% $CaCl_2$ + 1/4 pound per sack cello flake mixed with 6.33 gallons of water per sack. Weight = 14.8 pounds/gallon. Density = 1.34 cubic feet/sack. Total volume = 248 cubic feet based on 100% excess.

Production casing will cemented to surface in two stages. DV tool will be set at ≈4,500'. Total first stage volume = 685 cubic feet. Total second stage volume = 1,330 cubic feet. Volumes to be based on caliper log + 30% excess.

First stage lead will be ≈272 sacks 65/35 Class H with 6% gel + 1/4 pound per sack cello flake + 3% NaCl + 0.5% fluid loss additive + 0.2% dispersant mixed with 10.59 gallons of water per sack. Weight = 12.5 pounds/gallon. Density = 2.08 cubic feet/sack.

First stage tail will be cemented with ≈102 sacks Class H + 1/4 pound per sack cello flake + 0.5% fluid loss additive mixed with 5.23 gallons of water per sack. Weight = 15.6 pounds per gallon. Volume = 1.18 cubic feet per sack.

Second stage lead will be cemented with ≈395 sacks Class H with 3% extender + 1/4 pound per sack cello flake mixed with 10.19 gallons of water per sack. Weight = 11.2 pounds per gallon. Volume = 3.07 cubic feet per sack.

Second stage tail will be cemented with ≈105 sacks Class H with 1/4 pound per sack cell flake + 0.5% fluid loss additive mixed with 5.23 gallons of water per sack. Weight = 15.6 pounds per gallon. Volume = 1.18 cubic feet per sack.

5. MUD PROGRAM

INTERVAL	MUD TYPE	WEIGHT	VISCOSITY	WATER LOSS
0' - ~~300'~~ 320'	Fresh Water-Spud	8.6-9.0	28-32	NC
300' - 4,500'	Fresh Water-Polymer	8.4-8.8	28-32	NC
4,500' - TD	LSND	8.6-9.0	45-60	8-10 cc

Fibrous material (e.g., cedar bark, cotton seed hulls) will be on site to control seepage and lost circulation. High viscosity sweeps will be used as needed for hole cleaning. Viscosity will be raised at TD for logging. Viscosity for cementing will be reduced after logging. A two person mud logging crew will be on site from ≈5,000' to TD.

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. The following open hole logs will be run:

Array Induction/SFL/GR/SP from TD to bottom of surface casing
CNL/LDT(Lithodensity)/GR/Cal and PE from TD to ≈4,500'
Formation Micro Imager (FMI) from TD to ≈6,000'

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum reservoir pressure will be ≈1,500 psi.

8. OTHER INFORMATION

The anticipated spud date is May 1, 2003. It is expected it will take about twelve days to drill and thirty days to complete the well.