

CONFIDENTIAL

Form 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate
(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 ☒ Deepen ☐

b. TYPE OF WELL
Oil Well ☐ Gas Well ☒ Other ☐ Single Zone ☐ Multiple Zone ☒

2. NAME OF OPERATOR
Mallon Oil Company

3. ADDRESS AND TELEPHONE NO.
P.O. Box 2797
Durango, CO 81302 (970) 382-9100

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
Al surface 1400' FSL and 2425' FWL (NE/SW) Unit K

Al proposed prod. zone 1400' FSL and 2425' FWL (NE/SW) Unit K

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE *
53 miles east of Bloomfield, New Mexico

5. LEASE DESIGNATION AND SERIAL NO.
JIC 457

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Jicarilla Apache

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME, WELL NO.
Nicarilla 457-4SJ No. 2

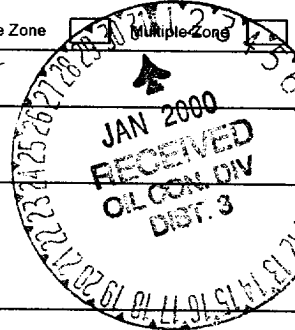
9. API WELL NO.
30-039-26348

10. FIELD AND POOL, OR WILDCAT
Sabre Canyon, San Jose ext.

11. SEC. T., R., M., OR BLK.
AND SURVEY OR AREA
K, Sec. 4, T30N-R03W

12. COUNTY OR PARISH
Rio Arriba

13. STATE
NM



15. DISTANCE FROM PROPOSED *
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
2425'
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE
2,560

17. NO. OF ACRES ASSIGNED
TO THIS WELL
150/160

18. DISTANCE FROM PROPOSED LOCATION *
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.
100'

19. PROPOSED DEPTH
1800'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (SHOW WHETHER DF, RT, GR, Etc.)
7105' GR

22. APPROX. DATE WORK WILL START
09/01/99

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"	24#	250-500'	Circulate to surface 206 cf/100%
7-7/8"	4-1/2"	10.5 14.7#	1800'	300 sks 50/50 Poz w/additive 6/5 cf/50% cement

Mallon Oil Co. proposes to drill this well to an approximate TD of 1800' in the San Jose formation. This well is placed on an existing well pad. Some additional pad extension may be required. The Jicarilla oil and Gas Administration has waived any necessity of re-onsiting the well pad as long as any required archaeology survey is submitted. Environmental assessment was previously submitted under the initial well APD. If productive, 4-1/2" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific programs as per on-shore Oil and Gas Order No. 1 are outlined in the following attachments:

Drilling Program

Exhibit 1: Blow Out Preventor Equipment/Plan
Exhibit A: Location and Elevation Plat
Exhibit B: Roads and Pipelines
Exhibit C: One Mile Radius Map

Exhibit D: Drilling Site Layout
Exhibit E: Production Facilities
Exhibit F: H2S Contingency Plan
Exhibit G: Archaeology Report

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is 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: Terry Lindeman

TITLE: Operations Superintendent

DATE: 07/30/99

(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE _____

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: David Sitzler TITLE: Asst Field Mgr DATE: 11/28/00

*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.

100-0104 FOR USC

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DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26348		*Pool Code 96822	*Pool Name Cabresto Canyon; San Jose ext.
*Property Code 25327	*Property Name JICARILLA 457-4SJ		*Well Number 2
*GRID No. 013925	*Operator Name MALLON OIL CO.		*Elevation 7105'

¹⁰ Surface Location

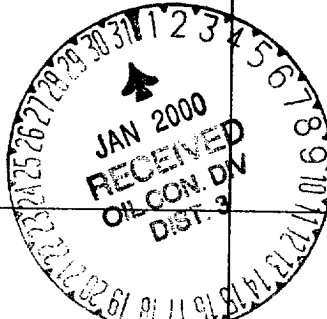
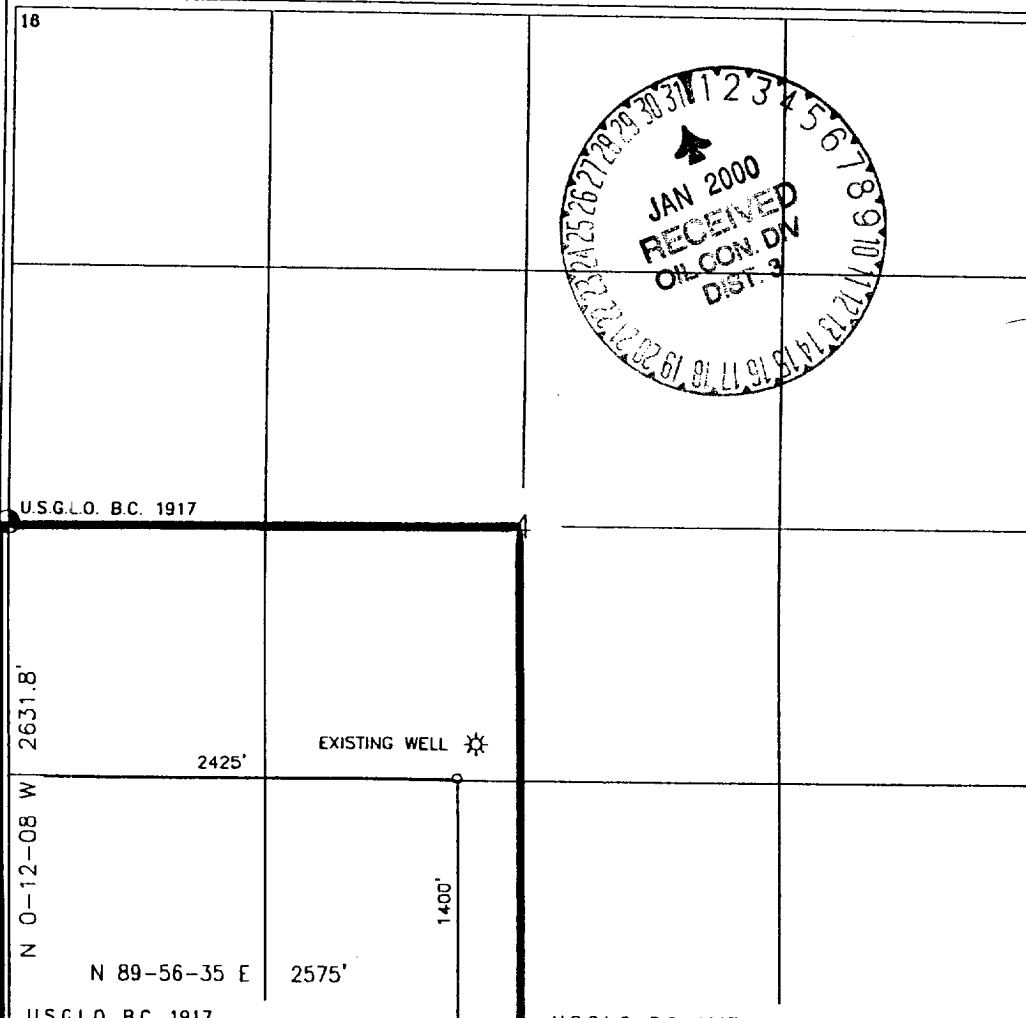
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	4	30-N	3-W		1400	SOUTH	2425	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

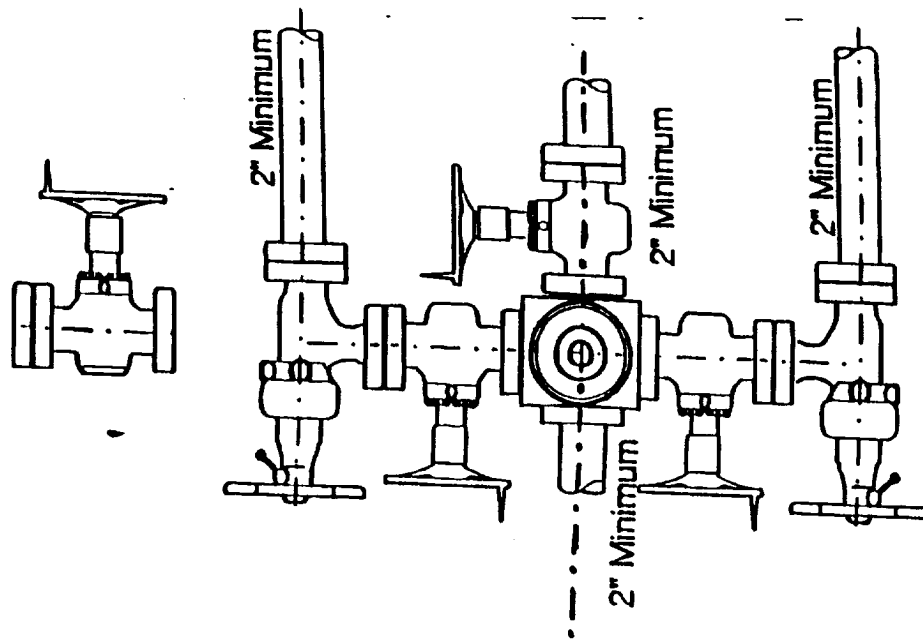
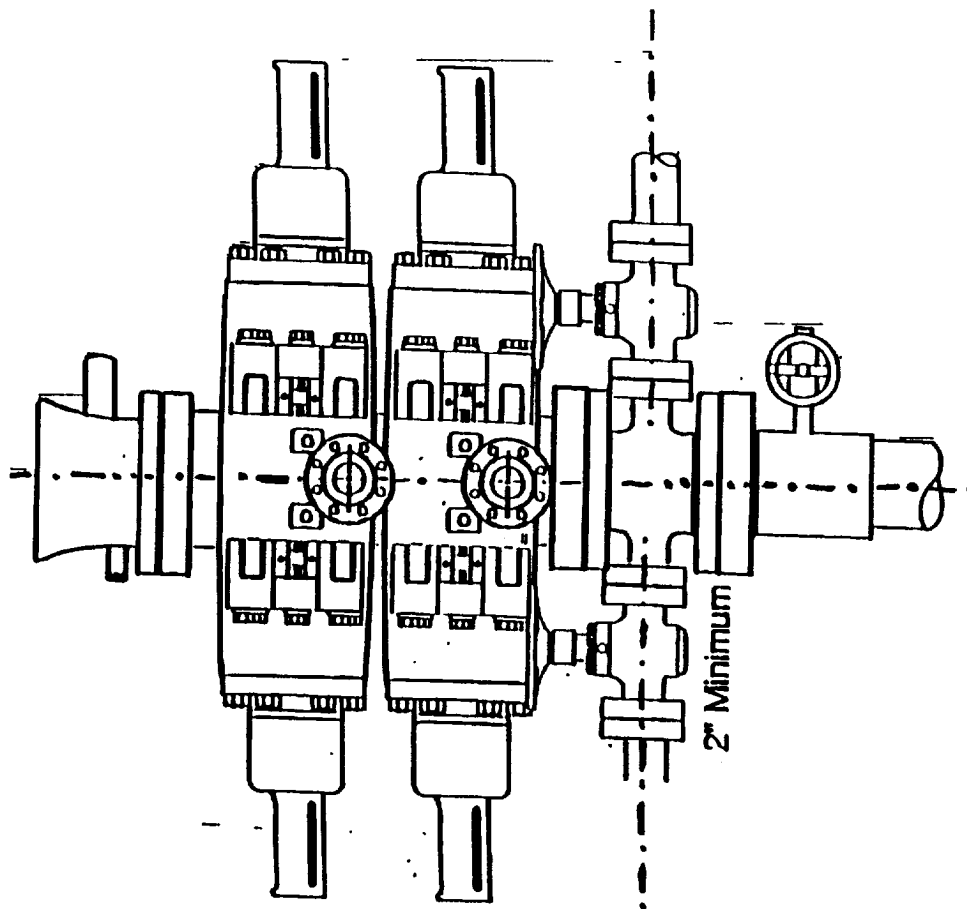
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

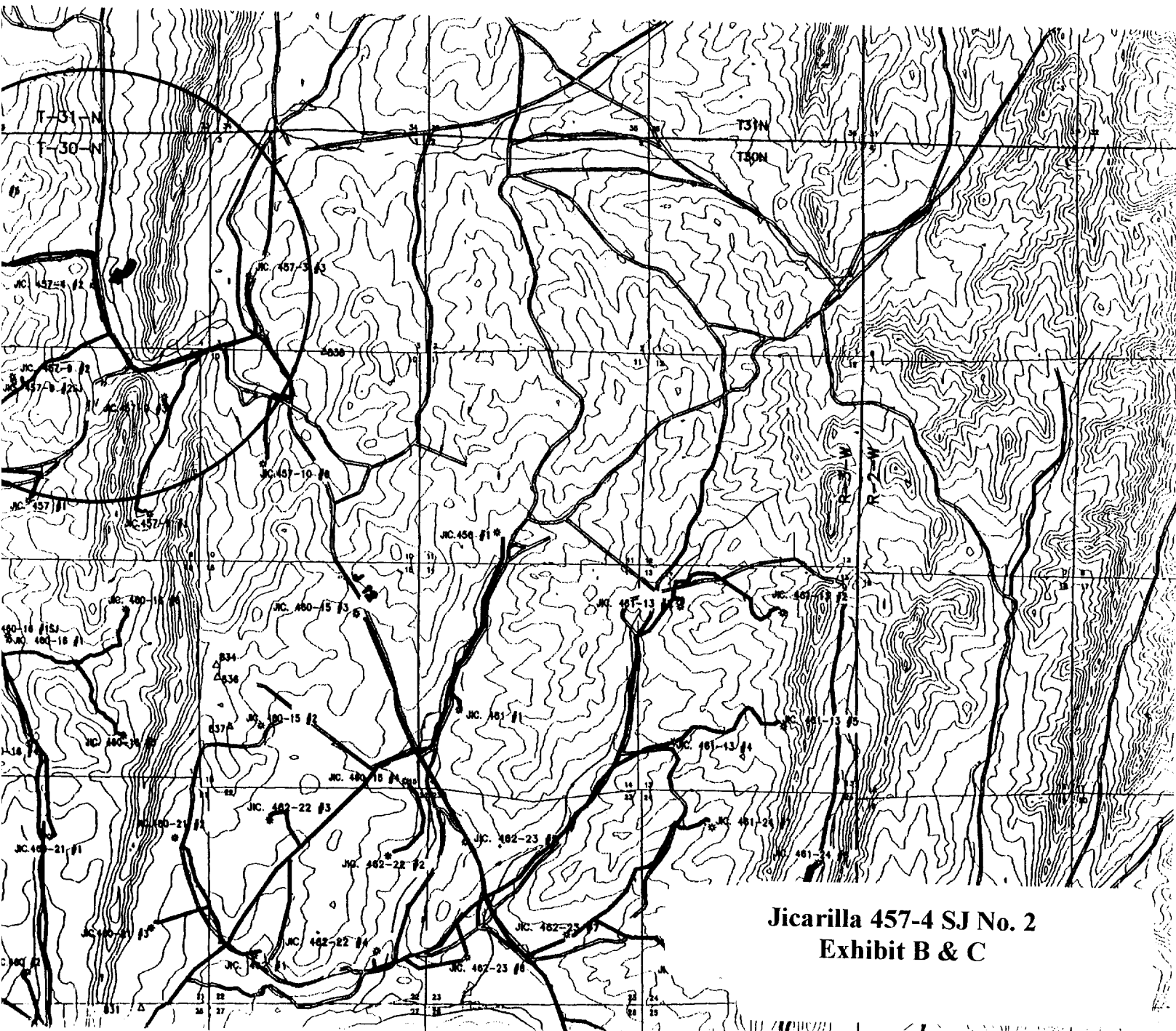
*Dedicated Acres 1580	*Joint or Infill	*Consolidation Code	*Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <u>Terry Lindeman</u> Printed Name: <u>Terry Lindeman</u> Title: <u>Operations Superintendent</u> Date: <u>July 30, 1999</u>
		

2-M SYSTEM





DRILLING PROGRAM

Attached to Form 3160-3

Mallon Oil Company

Jicarilla 457-4SJ No. 2

1400' FSL and 2425' FWL (NE/SW) Unit K

Sec. 4, T30N-R3W

Rio Arriba County, New Mexico

LEASE NUMBER: JIC 457

1. Geologic name of surface formation: San Jose

2. Estimated tops of important geologic markers:

San Jose	Surface
Total Depth	1800'

3. Estimated depths of anticipated fresh water, oil, or gas:

San Jose	1500'	Gas
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No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8-5/8" casing at 500' and circulating cement back to surface.

4. Proposed casing program:

<u>Hole Size</u>	<u>Interval</u>	<u>Casing OD</u>	<u>Casing weight, grade, thread</u>
12-1/4"	0-500'	8-5/8"	24 lb/ft, K55, ST&C
7-7/8"	0-1800'	4-1/2"	10.5 lb/ft, K55, ST&C

Cement program:

8-5/8" surface casing: Cemented to surface with Class B containing 2% CaCl₂, 0.25 lb/sk Cello Seal, slurry to be mixed at 15.6 lb/gal, yield 1.18 cu ft/sk. Circulate cement to surface.

4-1/2" production casing: 50/50 Poz with 8 lbs/sk CPS, 5 lbs/sk Gilsonite, .4% FL-62, 3% salt.

5. Minimum specifications for pressure control (2M System):

The blowout preventor equipment (BOP) shown in Exhibit 1 will consist of a double ram-type (2000 psi WP) preventor. The unit will be hydraulically operated and the ram-type preventor will be equipped with blind rams on top and drill pipe rams on bottom. The BOP will be nipped up on the 8-5/8" surface casing and used continuously until TD is reached. BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Pipe rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 2" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve, and choke lines and choke manifold with 2000 psi WP rating.

6. Types and characteristics of the proposed mud system:

The well will be drilled to TD with a combination of fresh water and fresh water polymer mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight</u> (ppg)	<u>Viscosity</u> (sec)	<u>Water loss</u> (cc)
0-500'	FW	8.5	30-33	NC
500-1800'	FW (Gel polymer)	8.5 - 8.8	30-33	<10 cc

7. Auxiliary well control and monitoring equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full-opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. The drilling fluids systems will be visually monitored at all times.

8. Testing, logging, and coring program:

Drill stem tests:	None anticipated
Logging:	TD to surface casing, GR, CNL - FDC, DLL, MSFL
Coring:	None planned

9. Abnormal conditions, pressures, temperatures, and potential hazards:

No abnormal pressures or temperatures are anticipated. The proposed mud program will be modified to control excess pressure if abnormal pressures are encountered. The estimated bottom-hole pressure (BHP) is 250 psig. Hydrogen sulfide gas is anticipated in the San Jose formation and an H₂S drilling plan is attached.

10. Anticipated starting date: September 1, 1999

Anticipated completion of drilling operations: Expected duration of 6 days