

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR LEASE

23654
22137
12/4/97
30-241-20884

ICATE
18 ON

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

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

UMC PETROLEUM CORPORATION (SCOTT WEBB) 303-573-4721

3. ADDRESS AND TELEPHONE NO.

410 17th STREET SUITE 1400 DENVER, COLORADO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

2250' FSL & 1700' FWL SEC. 25 T8S-R37E ROOSEVELT CO. NM

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approximately 15 miles North Northeast of Cross Roads New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

1700'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

6000'

16. NO. OF ACRES IN LEASE

800

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

19. PROPOSED DEPTH

12,500'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3994' GR.

22. APPROX. DATE WORK WILL START*

As soon as approved

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor 20"	NA	40'	Cement to surface with Redi-mix.
17 1/2"	H-40 13 3/8"	48	400'	415 Sx. circulate to surface
12 1/4"	K-55 8 5/8"	32	4750'	1790 Sx. circulate to surface
7 7/8"	N-80 S-95 5 1/2"	17	12,500'	715 Sx.

1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.
2. Drill 17 1/2" hole to 400'. Run and set 400' of 13 3/8" H-40 48# ST&C casing. Cement with 415 Sx. of Class "C" cement+ 2% CaCl, circulate cement to surface.
3. Drill 12 1/4" hole to 4750'. Run and set 4750' of 8 5/8" K-55 32# ST&C casing. Cement with 1540 Sx. of 35/65 POZ Class "C" cement + 6% Gel + 5% Salt, tail in with 250 Sx. of Class "C" + 1% CaCl, circulate cement to surface.
4. Drill 7 7/8" hole to 12,500'. Run and set 12,500' of 5 1/2" casing as follows: 1450' of 17# S-95 LT&C, 9900- of 17# N-80 LT&C, 1150' of 17# N-80 BUTTRESS THREAD. Cement with 515 Sx. of 50/50 POZ Class "H" + 2% Gel + .5% FL-52 + .1% Diacel LWL + 3% KCl, tail in with 200 Sx. of Class "H" cement +.8% FL-62 +3% KCl + .3% CD-32 + .1% Diacel.

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 Scott Webb Agent

DATE 11/16/97

(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 Joseph L. Davis TITLE Certifying Agent

DATE 12-2-97

*See Instructions On Reverse Side



RECEIVED
NOV 17 1997
OFFICE OF THE
SHERIFF

NOV 17 1997

RECEIVED

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-041-20884	Pool Code ✓	Pool Name WILDCAT DEVONIAN
Property Code 22137	Property Name RUSHMORE FEDERAL	Well Number 1
OGRID No. 23654	Operator Name UMC PETROLEUM CORPORATION	Elevation 3994

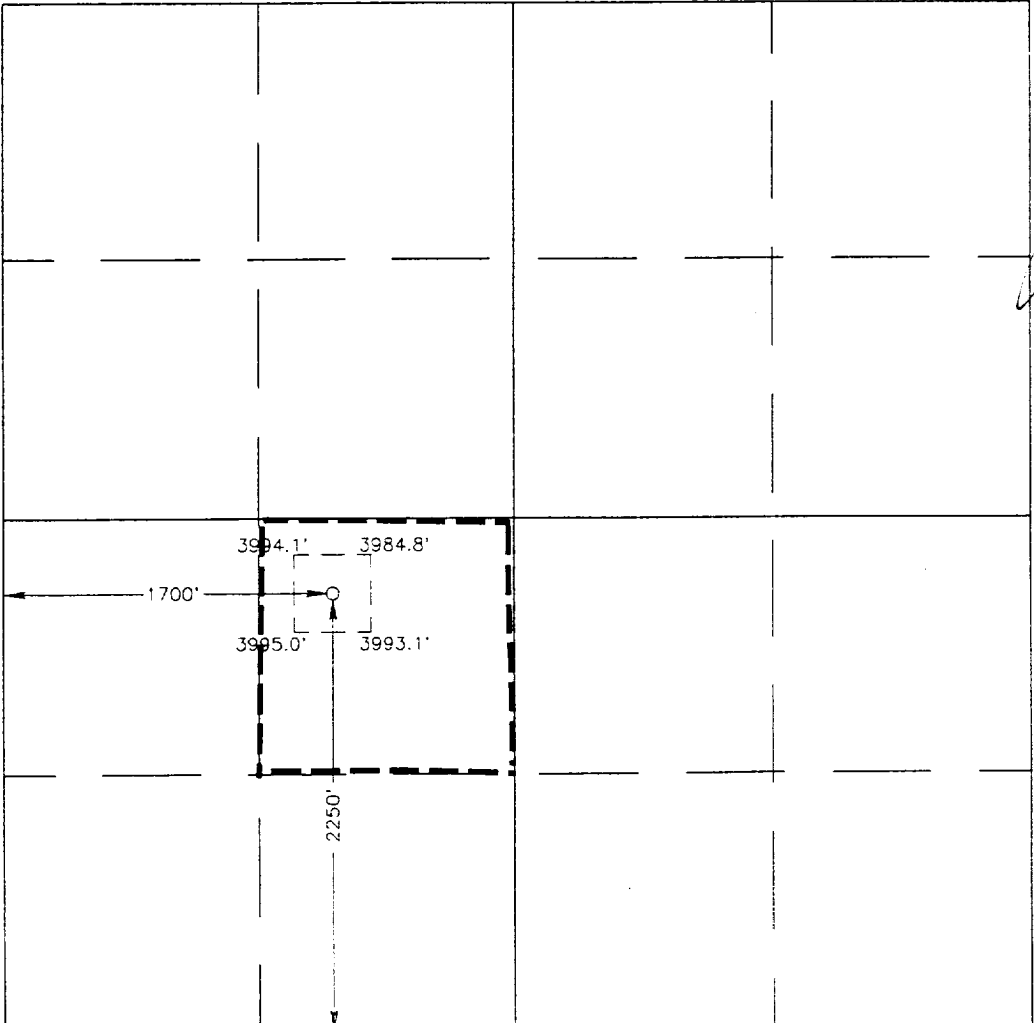
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	25	8 S	37 E		2250	SOUTH	1700	WEST	ROOSEVELT

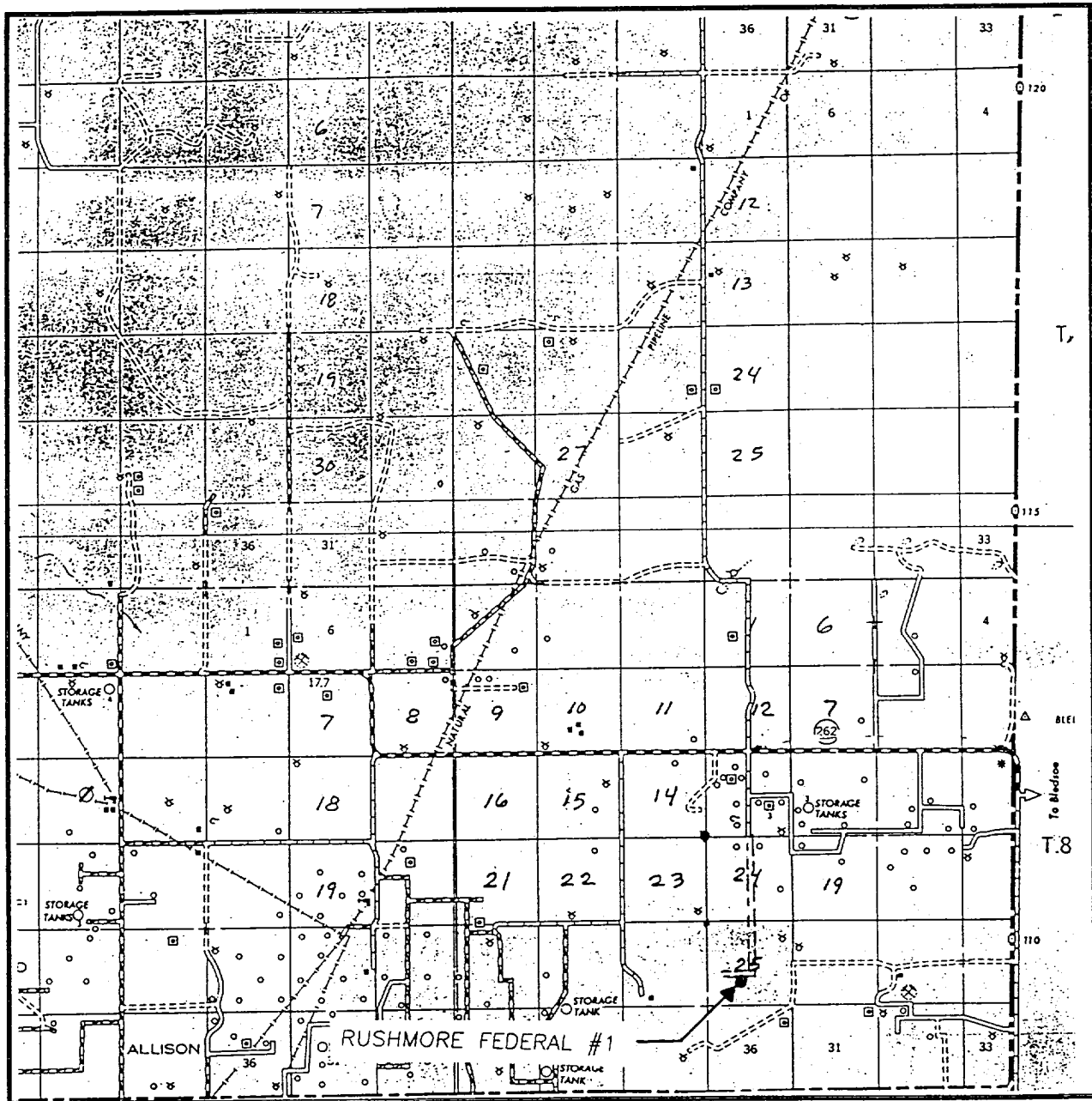
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature</p> <p>Joe T. Janica Printed Name</p> <p>Agent Title</p> <p>11/16/97 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>OCTOBER 28, 1997 Date Surveyed</p> <p>DMCC Signature & Seal of Professional Surveyor</p> <p><i>Ronald J. Edison</i> Professional Surveyor</p> <p>Certificate No. JOHN W. SHER 676 RONALD J. EDISON 3239 PROFESSIONAL SURVEYOR 12641</p>
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VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 25 TWP. 8-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY ROOSEVELT

DESCRIPTION 2250' FSL & 1700' FWL

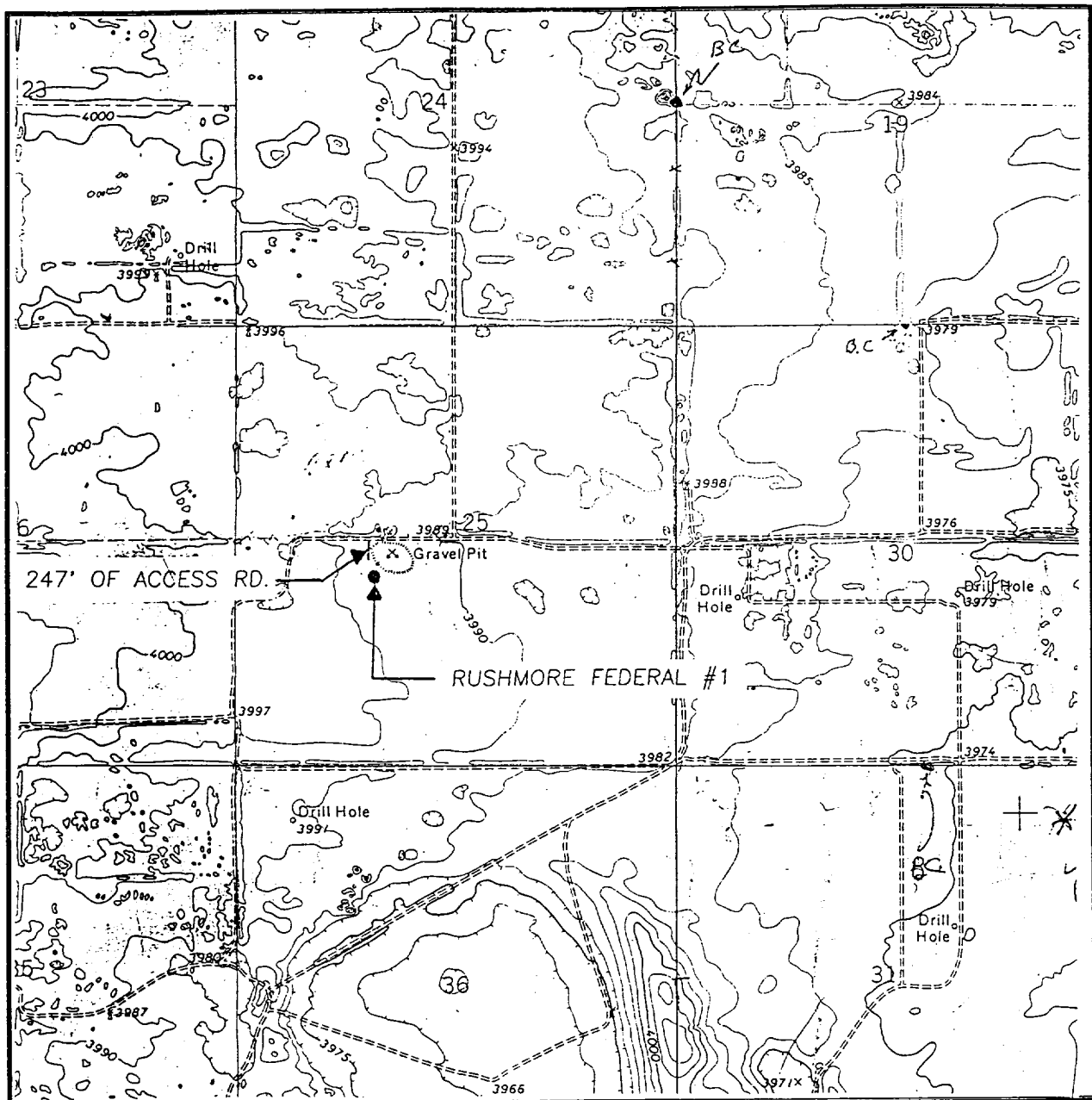
ELEVATION 3994

OPERATOR UMC PETROLEUM CORPORATION

LEASE RUSHMORE FEDERAL

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BLEDSE - 5'

SEC. 25 TWP. 8-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY ROOSEVELT

DESCRIPTION 2250' FSL & 1700' FWL

ELEVATION 3994

OPERATOR UMC PETROLEUM CORPORATION

LEASE RUSHMORE FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

BLEDSE, N.M.

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

APPLICATION TO DRILL

UMC PETROLEUM CORPORATION
RUSHMORE FEDERAL # 1
UNIT "K" SECTION 25
T8S-R37E LEA CO. NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1. Location: 2250' FSL & 1700' FWL SEC. 25 T8S-R37E ROOSEVELT CO. NM
2. Elevation above sea level: 3994' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
5. Proposed drilling depth: 12,500'
6. Estimated tops of geological markers:

Rustler Anhydrite	2300'	Mississippian	11,260'
San Andres	4620'	Woodford	11,290'
Wolfcamp	8660'	Devonian	11,390'
Atoka	10720'		
7. Possible mineral bearing formation:

San Andres	Oil
Bough	Oil
Devonian	Oil
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-400'	13 3/8"	48	8-R	ST&C	H=40
12½"	0-4750'	8 5/8"	32	8-R	ST&C	K-55
7 7/8"	0-12,500'	5½"	17	8-R & Buttress	LT&C	S-95 & N-80

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T8S-R37E LEA CO. NM

9. Cementing and Setting Depth:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 400' of 13 3/8" H-40 48# ST&C casing & cement with 415 Sx. of Class "C" cement + 2% CaCl. circulate cement to surface.
8 5/8"	Intermediate	Set 4750' of 8 5/8" K-55 32# ST&C casing & cement with 1540 Sx. of 35/65 POZ Class "C" cement + 6% Gel + 5% salt, tail in with 250 Sx. of Class "C" + 1% CaCl, circulate cement to surface.
5 1/2"	Production	Set 12,500' of 5 1/2" 17# as follows: 1450' of S-95 LT&C, 9900' of N-80 LT&C, 1150' of N-80 Buttress thread. Cement with 515 Sx. of 50/50 POZ Class "H" +2% Gel + .5% Fl-52 + .1% Diacel LWL + 3% KCl, tail in with 200 Sx. of Class "H" cement + .8% Fl-62 + .3% CD-32 + .1% Diacel LWL + 3% KCl. Estimate top of cement 8500'.

10. Pressure Control Equipment: Exhibit "E". A 1500 series 5000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor BOP unit will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nipped up on 13 3/8" casing and will be operated at least once each 24 Hr. period while drilling and blind rams will be operated when out of hole during trips. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. Proposed Mud Circulating System:

Depth	Mud Wt.	Visc.	Fluid Loss	Type Mud
40-400'	8.4-9.0	32-36	NC	Fresh water spud mud add paper for seepage and Bentonite for viscosity if needed Soda ash for pH
400-4750'	8.4-10.2	32-40	NC	Fresh water add 4-6% oil and brine to drill salt section use paper for seepage & sweeps. Caustic soda for pH control maintain pH 9.5-10.5.
4750-8900'	9.1-9.5	34-38	NC	Cut brine add paper for seepage & add 4-8% oil thru Abo section use caustic soda to maintain pH 9.5-10.
8900-11200'	9.3-9.7	34-38	10-12 cc	Same as above allow oil to fall to 2-3% use starch for WL control.
11200-12500'	9.3-9.7	38-45	6-8 cc	Same as above allow oil to fall to 0-2% maintain pH at 9.5-10.5 salt Gel for vis. starch for WL.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation and unexpected kicks. In order to run DST's , open hole logs and casing the viscosity and water loss may have to be adjusted to meet these needs.

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12. Testing, Logging and Coring Program:

- A. Fluid caliper from 4750-to surface & TD-to 4750'.
- B. Open Hole logs: Laterolog, MSFL, CNL, Litho-Density from TD to 4750'
- C. Gamma Ray and Caliper from TD to 4750'. Gamma Ray & Neutron from TD to surface. BHC Sonic from TD to 4750'.
- D. Mud logger rigged up on hole from 4000' to TD.
- E. Possible DST's in San Andres, Bough "C" & Devonian.

13. Potential Hazards:

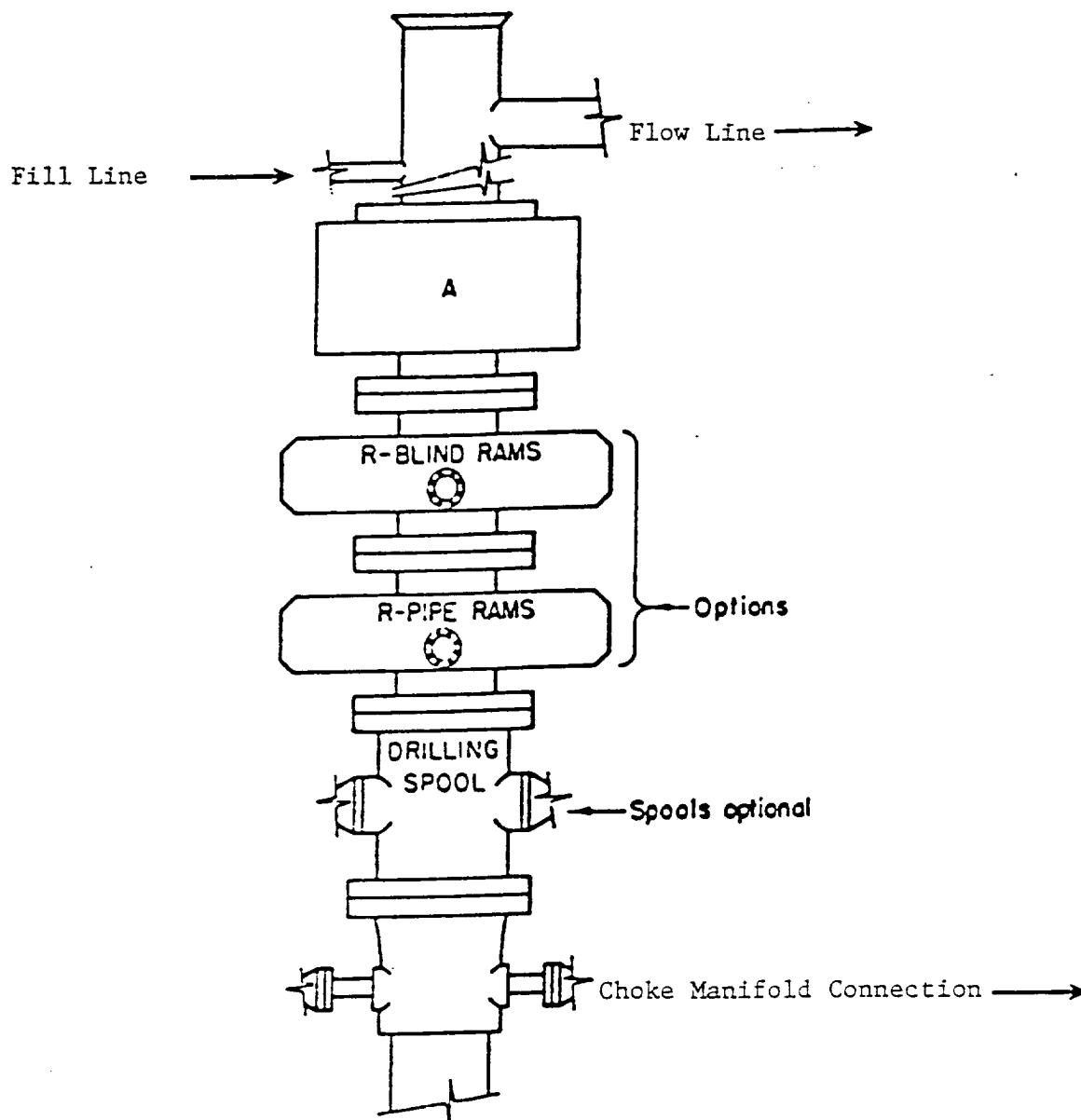
No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H₂S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 6500 PSI, estimated BHT 185° .

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 60-75 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Devonian pay will be perforated and stimulated. The well will be swab tested and potentialized as an oil well.



ARRANGEMENT SRRA

1500 Series
5000 PSI WP

EXHIBIT "E"
B.O.P. SKETCH TO BE USED ON

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RUSHMORE FEDERAL # 1
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T8S-R37E LEA CO. NM