

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ROW/APD

FORM APPROVED  
Budget Bureau 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 Well ☒Multiple Zone ☐

2. Name of Operator

Williams Production Company

3. Address and Telephone No

P.O. Box 3102, MS 37-2, Tulsa, OK. 74101

4. Location of Well (Footages)

At Surface

2030' FSL 370' FWL, NWSW

proposed prod. zone

5. Lease Designation and Serial No.  
SF-078767

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

Rosa Unit

8. Well Name and No.

RU-#19B

9. API Well No

30-039-26560

10. Field and Pool, or Exploratory Area

Blanco-Mesa Verde

11. Sec., T., R., M., or BLK.  
and Survey or Area

Section 24, T31N, R6W

14. Distance in Miles and Directions from Nearest Town or Post Office

Approximately 19.1 miles northeast of Navajo Dam Post Office (straight line)

12. County or Parish

Rio Arriba

13. State

NM

15. Distance from Proposed Location to Nearest

Property or Lease Line, Ft 370'

16. No. of Acres in Lease

2518.04 acres

17. No. of Acres Assigned to This Well

320 acres, W/2

18. Distance from Proposed Location to Nearest Well Drilling, Completed,

or Applied for, on this Lease, FT 1450'

19. Proposed Depth

6082' KB

20. Rotary or Cable Tools

Rotary

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

6320' GR

22. Approximate Date Work will Start

April 1, 2001

## PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE & GRADE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT  |
|--------------|------------------------|-----------------|---------------|---|
| 12-1/4"      | 9-5/8"                 | 36# K-55        | 250'          | 130 sx-181 cu ft Type III                                   |
| 8-3/4"       | 7"                     | 20# K55         | 3647'         | 405 sx-848 cu ft Type III<br>180sx-248 cu ft Type III       |
| 6-1/4"       | 4-1/2"                 | 10.5# K55       | 3547'-6082'   | 80sx-116 cu ft 190sx-274 cu<br>ft Class H + 50/50 poz+4%gel |

Williams Production Co. proposes to drill a vertical well to develop the Blanco Mesa Verde Formation in the described location above, and in accordance with the attached Operation and Surface Use plans. **The surface is under the jurisdiction of the New Mexico Game & Fish Dept. Minerals are Federal.** Independent Contract Archaeology has surveyed the proposed location for Cultural Resources, and the report has been submitted to BLM for review.

This proposed well would require the construction of a 20-foot long new access road (see Pipeline & Well Plats #3 and #4). The proposed 248-foot long pipeline would tie into the Williams Gas Gathering System for the Rosa Unit #19. This proposed well tie would follow and utilize the 20-foot long new access road and existing gas field road, all on land owned by the NM Game & Fish Dept. (see the attached Pipeline Plat Map #4).

This proposal is subject to BLM review and approval. If approved, the applicant shall pay a fee of \$125.3 and a fee of \$105.4.

DRILLING OPERATIONS SHALL BE  
SUBJECT TO BLM REVIEW WITH ATTACHED  
"GENERAL REQUIREMENTS"

I, Steve Nelson, hereby certify that the information furnished herein is true and correct.

Signed

Steve Nelson

Title Agent

COPIES: BLM+4, WELL FILE+1  
Date November 9, 2000

(This space for Federal or State office use)

Permit No.

Application approval does not warrant or certify that 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:

Approval Date

9/5/01

APPROVED BY

/s/ Joel Farrell

TITLE

DATE

SEP - 5

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer 00, Artesia, NM 88211-0719

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

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-10  
Revised February 21, 1999  
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<br><b>30-039-26560</b> |  | *Pool Code<br><b>72319</b> | *Pool Name<br><b>Blanco Mesavende</b> |
| *Property Code<br><b>17033</b>     | *Property Name<br><b>ROSA UNIT</b>                   |                            | *Well Number<br><b>19B</b>            |
| *OGRIID No.<br><b>120782</b>       | *Operator Name<br><b>WILLIAMS PRODUCTION COMPANY</b> |                            | *Elevation<br><b>6320'</b>            |

<sup>10</sup> Surface Location

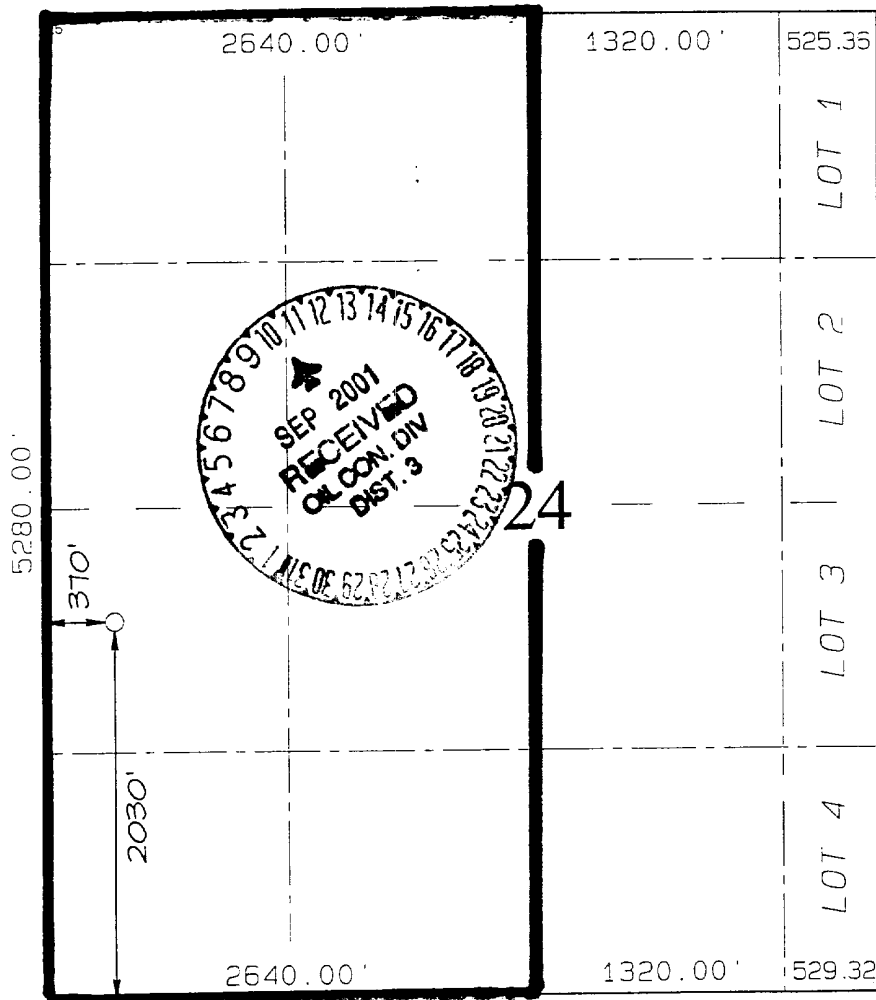
|               |           |            |           |         |               |                  |               |                |                   |
|---------------|-----------|------------|-----------|---------|---------------|------------------|---------------|----------------|-------------------|
| UL or lot no. | Section   | Township   | Range     | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County            |
| <b>L</b>      | <b>24</b> | <b>31N</b> | <b>6W</b> |         | <b>2030</b>   | <b>SOUTH</b>     | <b>370</b>    | <b>WEST</b>    | <b>RIO ARriba</b> |

<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<br><b>320 - W/2</b> | <sup>13</sup> Joint or Infill<br><b>I</b> | <sup>14</sup> Consolidation Code<br><b>U</b> | <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



<sup>17</sup> OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Steve Nelson*  
Signature

**Steve Nelson**  
Printed Name

**Agent, Nelson Consulting**  
Title

**November 9, 2000**  
Date

<sup>18</sup> 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.

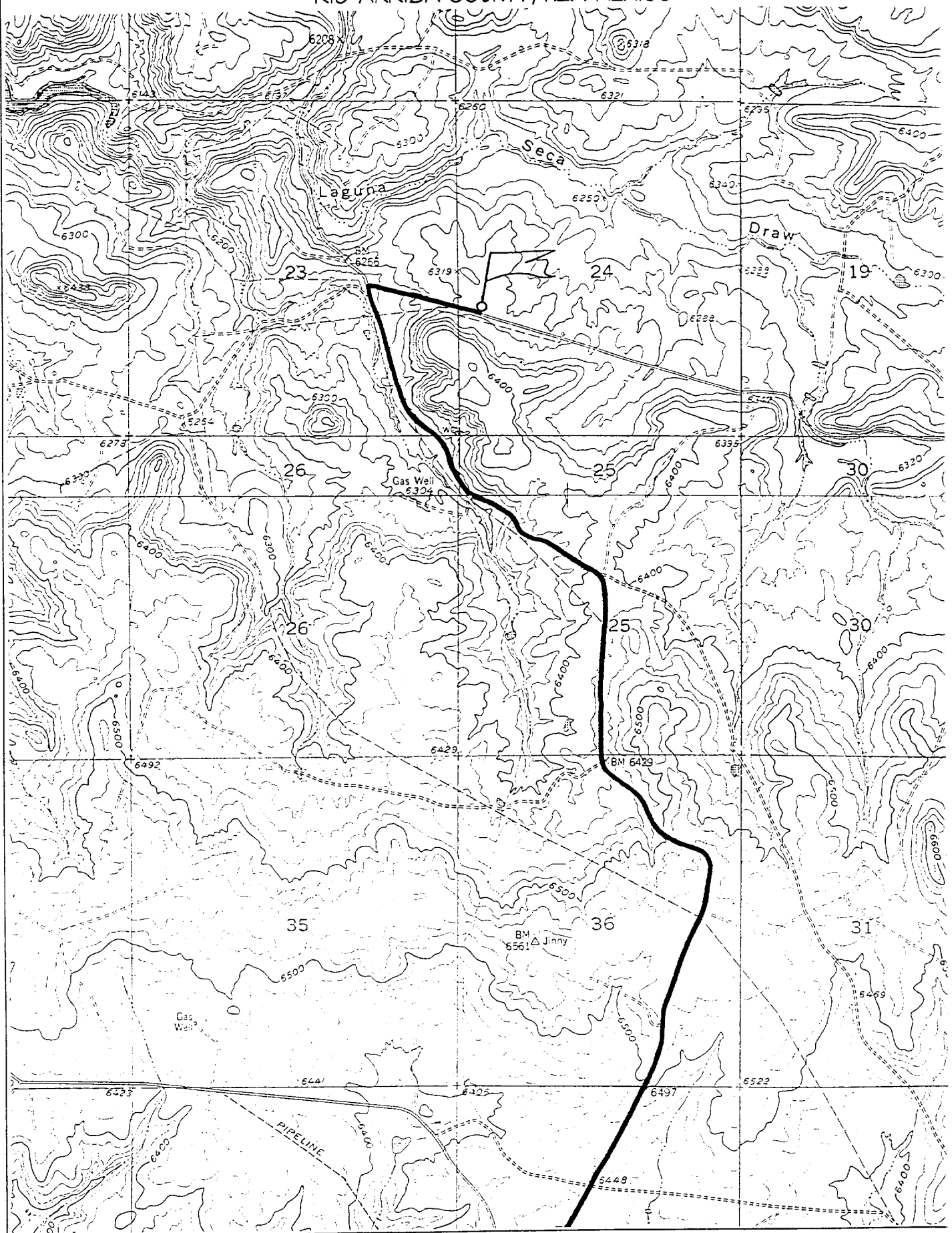
**SEPTEMBER 6, 2000**  
Date of Survey

Signature and Seal of the Surveyor

**NEALE G. EDWARDS**  
**NEW MEXICO**  
**6857**  
Professional Surveyor  
Certificate No. 6857

# WILLIAMS PRODUCTION COMPANY ROSA UNIT #19B

2030' FSL & 370' FWL, SECTION 24, T31N, R6W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO





**WILLIAMS PRODUCTION COMPANY**

**Operations Plan**

**DATE:** 11/9/2000 **FIELD:** Blanco MV  
**WELL NAME:** Rosa Unit #19B **SURFACE:** G&F  
**LOCATION:** NW/4 SW/4 Sec 24-31N-6W **MINERALS:** Federal  
Rio Arriba, NM  
**ELEVATION:** 6320' GR **LEASE #** SF-078767  
**MEASURED DEPTH:** 6082'

**I. GEOLOGY:** Surface formation - San Jose

**A. FORMATION TOPS:** ( KB)

|                 | <u>MD</u> |               | <u>MD</u> |
|-----------------|-----------|---------------|-----------|
| Ojo Alamo       | 2412'     | Cliff House   | 5357'     |
| Kirtland        | 2527'     | Menefee       | 5407'     |
| Fruitland       | 2922'     | Point Lookout | 5632'     |
| Pictured Cliffs | 3172'     | Mancos        | 5962'     |
| Lewis           | 3462'     | Total Depth   | 6082'     |

**B. LOGGING PROGRAM:** IND/GR, CDL/SNL. Log the Mesa Verde from TD Intermediate Casing shoe.

**C. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

**II. DRILLING**

**A. MUD PROGRAM:** Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

**B. BOP TESTING:** While drill pipe is in use, the pipe rams will be tested not less than once each day. The blind rams will be tested once each trip. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's will be recorded in the tour book as to time and results.

**III. MATERIALS**

**A. CASING PROGRAM:**

| <u>CASING TYPE</u> | <u>HOLE SIZE</u> | <u>DEPTH</u> | <u>CASING SIZE</u> | <u>WT. &amp; GRADE</u> |
|--------------------|------------------|--------------|--------------------|------------------------|
| Surface            | 12-1/4"          | 250'         | 9-5/8"             | 36# K-55               |
| Intermediate       | 8-3/4"           | 3647'        | 7"                 | 20# K-55               |
| Prod. Liner        | 6-1/4"           | 3547'-6082'  | 4-1/2"             | 10.5# K-55             |

**B. FLOAT EQUIPMENT:**

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install one Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (4) joints to the surface casing. Total centralizers = (26) regular and (3) turbulent.
3. PRODUCTION CASING: 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20" bottom joint. Place marker joint above 5630'. Place one positive standoff turbolizer every other joint. Total turbolizers is 34.

**C. CEMENTING:**

1. SURFACE: Slurry: 130sx (181 cu.ft.) of "Type III" + 2% CaCl<sub>2</sub> + 1/4 # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 125% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. INTERMEDIATE: Lead: 405sx (848 ft<sup>3</sup>) of "Type III" 65/35 poz + 8% gel + 1% CaCl<sub>2</sub> + 1/4 # cello-flake/sk (Yield = 2.09 ft<sup>3</sup>/sk, Weight = 12.1 #/gal.). Tail: 180sx (248 ft<sup>3</sup>) of class "Type III" + 1% CaCl<sub>2</sub> + 1/4 # cello-flake/sk. (Yield = 1.39 ft<sup>3</sup>/sk, Weight = 14.5#/gal.). The 100% excess in lead and tail should circulate cement to the surface. Total volume = 1096 ft<sup>3</sup>. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated to the surface. Test csg. to 1500psi. CBL
3. PRODUCTION LINER: Lead: 80sx (116 ft<sup>3</sup>) of Class-H + 50/50 poz + 4 % gel + 0.4% FL-52. (Yield = 1.45 cu.ft./sk, Weight = 13.2 #/gal.). Tail: 190sx (274 ft<sup>3</sup>) of Class-H + 50/50 poz + 4 % gel + 0.4% FL-5 + 1/4# celloflake/sk and 4% Phenoseal (Yield = 1.45 ft<sup>3</sup>/sk, Weight = 13.2 #/gal.). Displace cement at a minimum of 8 BPM. The 50% excess in lead and tail should cover liner top. Total volume 390 ft<sup>3</sup>. WOC 12 hours.

**IV COMPLETION**

**A. CBL**

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings.

**B. PRESSURE TEST**

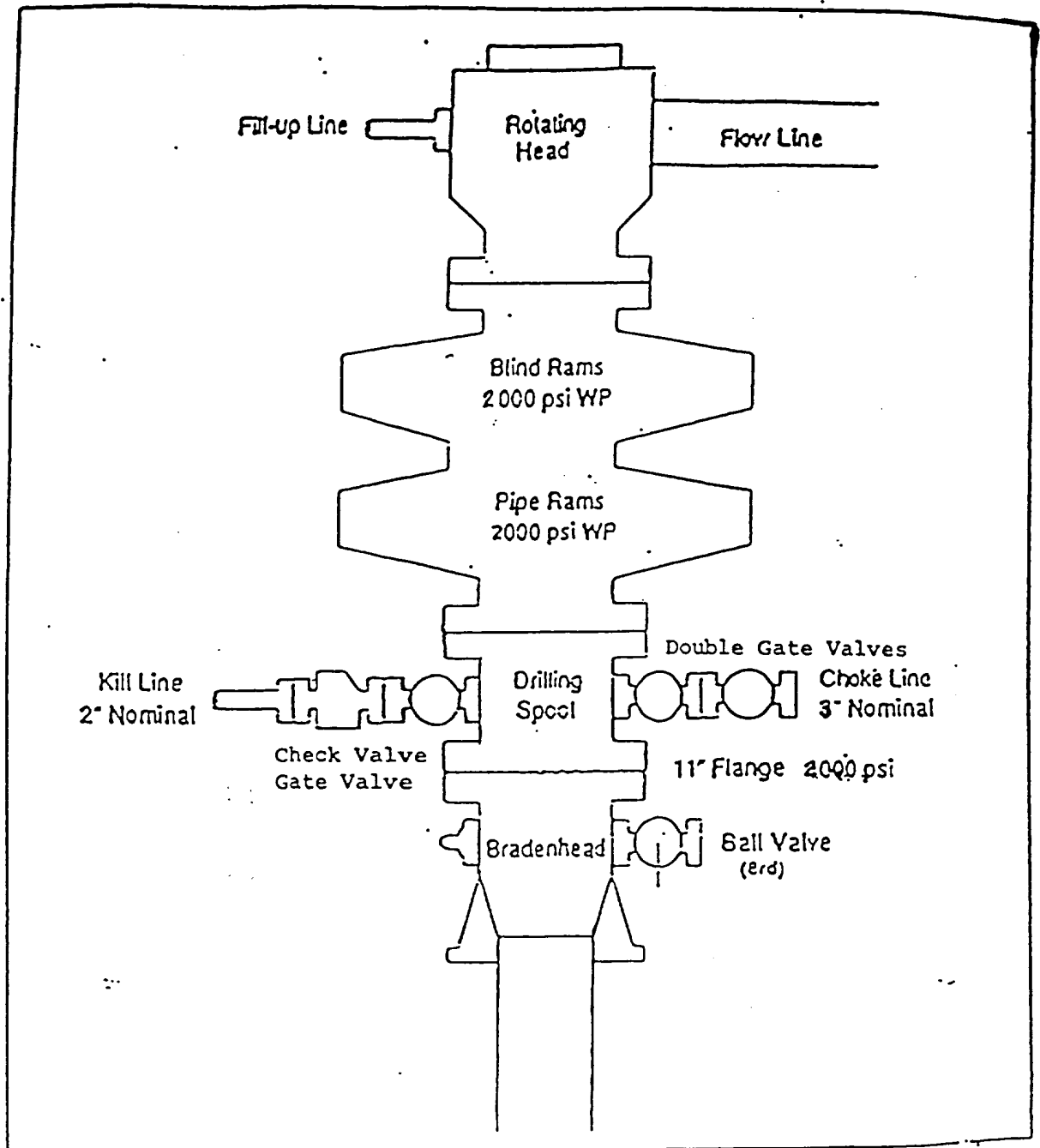
1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

**C. STIMULATION**

1. Stimulate with approximately 80,000# of 20/40 sand in slick water.
2. Isolate Point Lookout with a CIBP.
3. Perforate the Menefee/Cliff House as determined from the open hole logs.
4. Stimulate with approximately 80,000# of 20/40 sand in slick water.

# EXHIBIT 1

## BOP STACK ARRANGEMENT



All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi. The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kill cock with handle, floor safety valve with change overs for each tool joint in the string, and choke manifold all rated to 2000 psi.