

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

5. Lease Designation and Serial No.  
SF-078769

1a. Type of Work

DRILL ☒DEEPEN ☐

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

Rosa Unit

8. Well Name and No.

RU-#31B

9. API Well No.

30-039-26579

10. Field and Pool, or Exploratory Area

Blanco-Mesa Verde

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

Section 17, T31N, R5W

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

570' FNL 515' FWL, NWNW

proposed prod. zone

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

Approximately 20.9 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 570'

16. No. of Acres in Lease

2560.0 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 1415'

19. Proposed Depth

6077' KB

20. Rotary or Cable Tools

Rotary

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

6315' 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	500'	255 sx-352 cu ft Type III <i>circ</i>
8-3/4"	7"	20# K55	3662'	415 sx-863 cu ft Type III <i>circ</i>
6-1/4"	4-1/2"	10.5# K55	3562'-6077'	170sx-238 cu ft Type III
				80sx-116 cu ft 190sx-271 cu 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 BLM-Farmington Field Office.** 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 not require the construction of a new access road (see Pipeline & Well Plats #3 and #4). The proposed 147-foot long pipeline would tie into the Williams Gas Gathering System on the Rosa Unit #68 pipeline. This proposed well pipeline tie would follow and utilize an existing gas field road (see the attached Pipeline Plat Map # 4).

This action is subject to Bureau and Field procedural review pursuant to 43 CFR 1600.3 and appeal pursuant to 43 CFR 1600.4.

ALL OPERATIONS AUTHORIZED ARE  
IN ACCORDANCE WITH ATTACHED  
PERMIT AND PLAT MAPS.

14. ABOVE-SIGNED PROPOSAL TO DEEPEN, give present productive zone and proposed new productive zone.  
Signed Steve Nelson Title Agent

COPIES: BLM+4, WELL FILE+1  
Date November 27, 2000

(This space for Federal or State office use)

Permit No. \_\_\_\_\_ Approval Date \_\_\_\_\_  
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:

APPROVED BY: /s/ Jim Lovato

220008

TITLE

DATE

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

District II  
PO Drawer DD, 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-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 30-039-26579		*Pool Code 72319 -	*Pool Name Blanco Mesaverde
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 31B
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6315'

<sup>10</sup> Surface Location

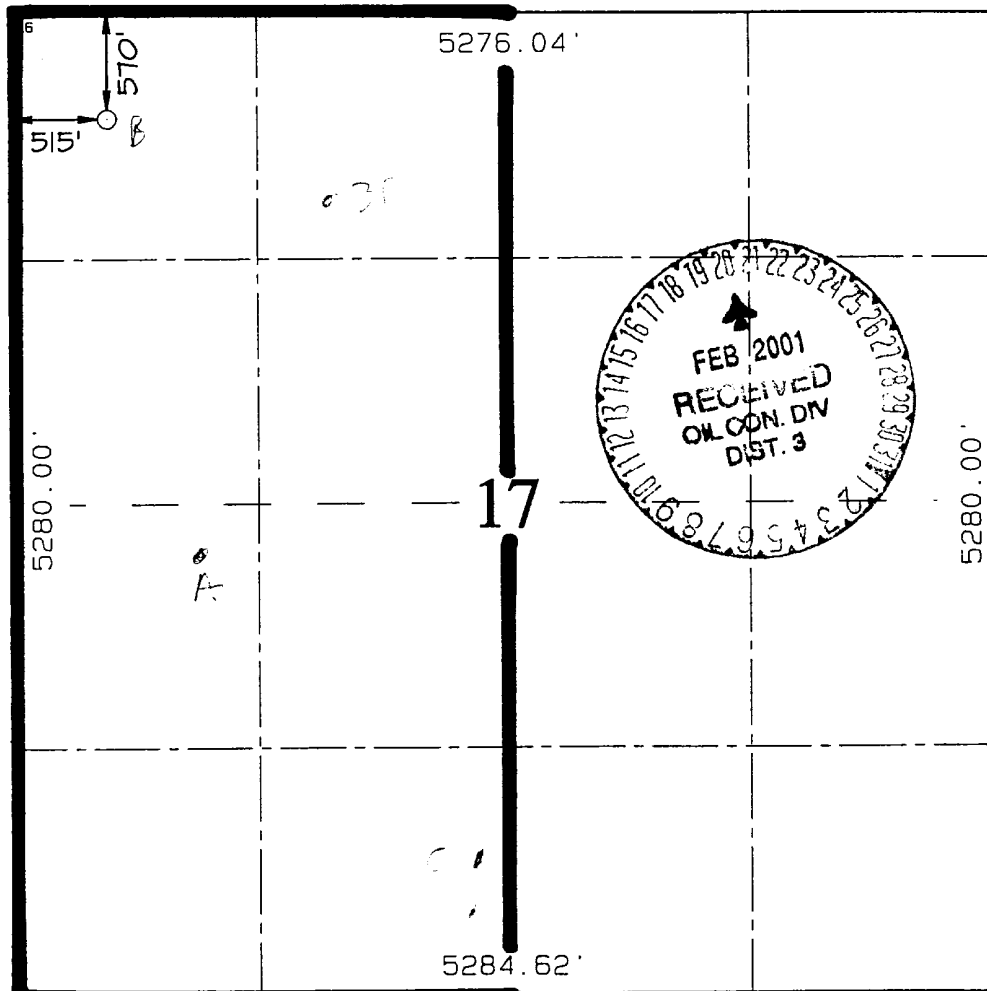
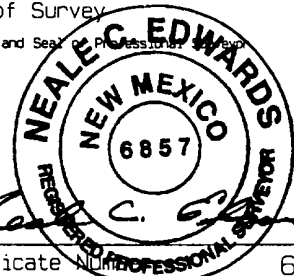
UL or lot no. D	Section 17	Township 31N	Range 5W	Lot Idn	Feet from the 570	North/South line NORTH	Feet from the 515	East/West line WEST	County RIO ARriba
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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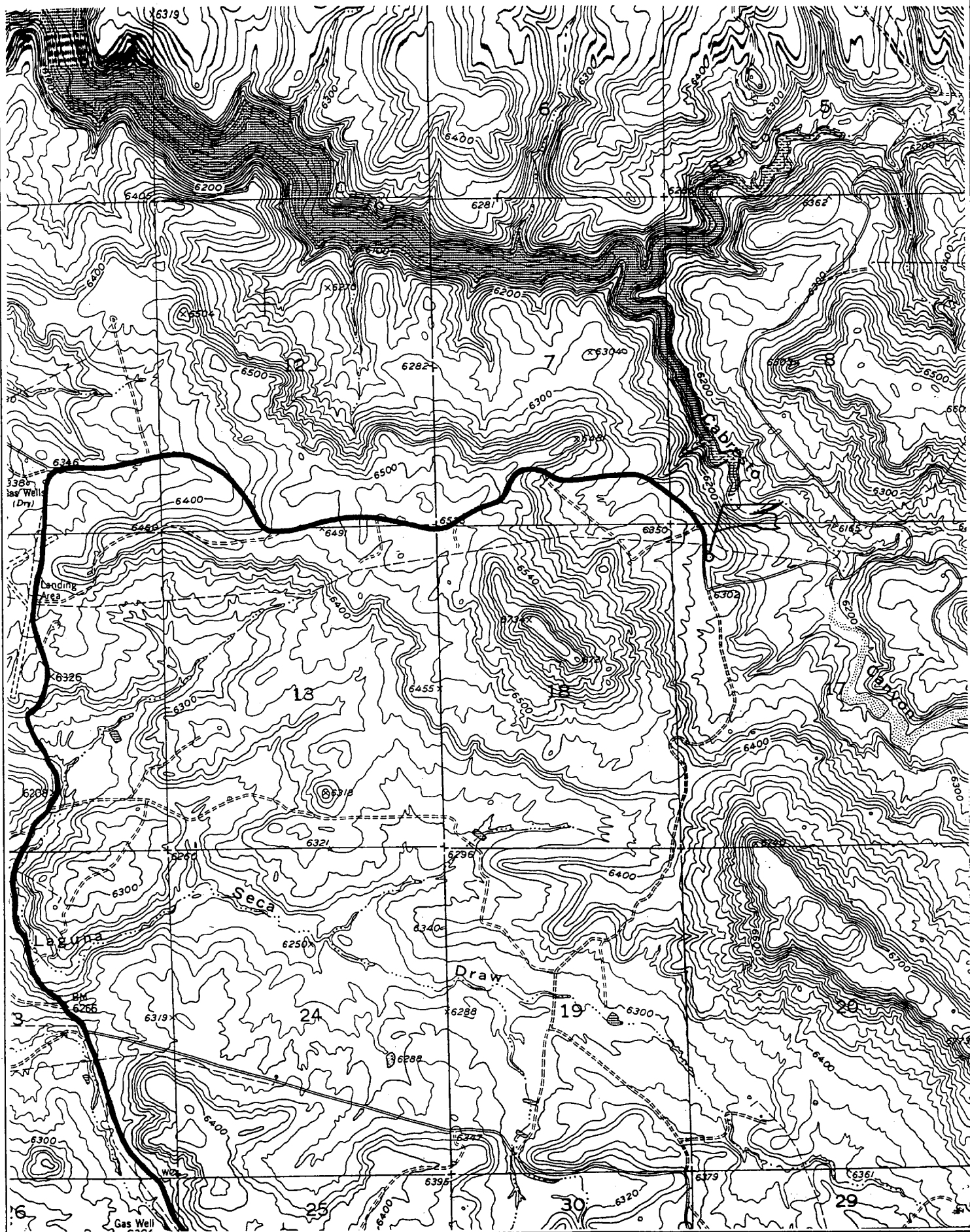
<sup>12</sup> Dedicated Acres 320 - W/2	<sup>13</sup> Joint or Infill I	<sup>14</sup> Consolidation Code U	<sup>15</sup> Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><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</p> <p><i>Steve Nelson</i> Signature Steve Nelson Printed Name Nelson Consulting, Agent Title November 27, 2000 Date</p>
	<p><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.</p> <p>OCTOBER 17, 2000 Date of Survey <i>Neale C. Edwards</i> Signature and Seal  Certificate No. 6857</p>

WILLIAMS PRODUCTION COMPANY ROSA UNIT #31B

570' FNL & 515' FWL, SECTION 17, T31N, R5W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO



**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: 255sx (352 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: 415sx (863 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: 170sx (238 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 = 1101 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.
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 (271 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 387 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**

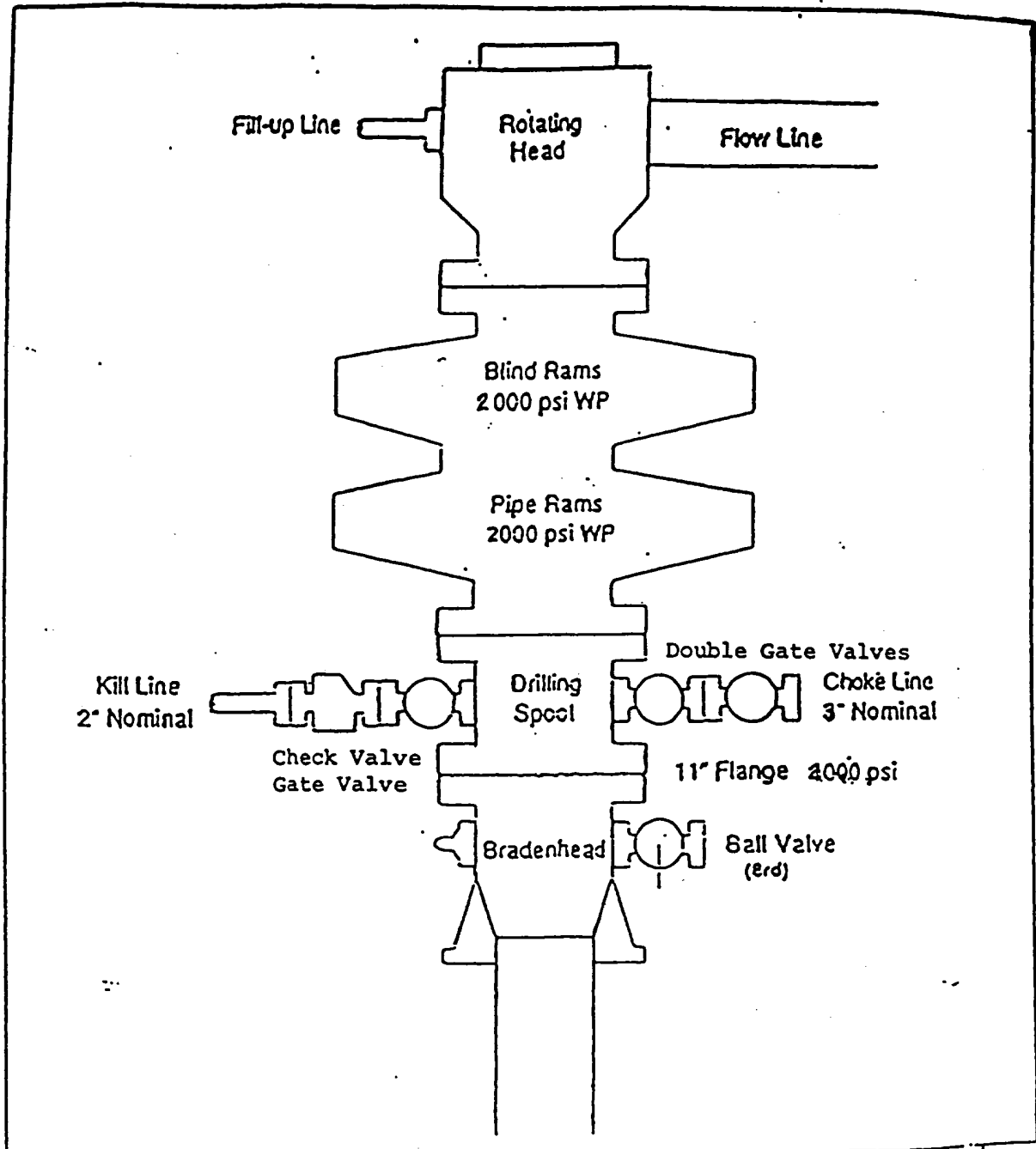
1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

**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 kelly cock with handle, floor safety valve with change overs for each tool joint in the string, and choke manifold all rated to 2000 psi.