

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires December 31, 1991

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

2002 AUG 21 PM 1:11

5. LEASE DESIGNATION AND SERIAL NO.  
NM-03190

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK **DRILL** ☒ **DEEPEN** ☐  
1b. TYPE OF WELL  
**OIL** ☐ **GAS** ☒ **WELL** ☐ **OTHER** ☐ **SINGLE** ☒ **ZONE** ☐ **MULTIPLE** ☐ **ZONE** ☐

6. IF INDIAN, ALLOTTEE OR TRIBE NAME 17036

7. UNIT AGREEMENT NAME Cox Canyon Unit

8. FARM OR LEASE NAME, WELL NO. #8C

2. NAME OF OPERATOR Williams Production Company LLC

9. API WELL NO. 30045 31187

3. ADDRESS OF OPERATOR c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892

10. FIELD AND POOL OR WILDCAT Blanco Mesa Verde

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. \*)  
At Surface 1055' FSL & 585' FEL  
At proposed Prod. Zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
p Sec. 17, T32N, R11W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
12 miles North of Aztec, NM

12. COUNTY OR PARISH San Juan 13. STATE NM

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
585'

16. NO. OF ACRES IN LEASE 328.20

17. NO. OF ACRES ASSIGNED TO THIS WELL 328.2

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.  
~500'

19. PROPOSED DEPTH 6307'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6810' GR

22. APPROX. DATE WORK WILL START\*  
October 1, 2002

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT/FOOT | SETTING DEPTH | QUANTITY OF CEMENT                             |
|--------------|----------------|-------------|---------------|--|
| 12-1/4"      | 9-5/8"         | 36#         | ~250 ft       | ~176 cu.ft. Type III with 2% CaCl <sub>2</sub> |
| 8-3/4"       | 7"             | 20#         | ~2987 ft      | ~689 cu.ft. 65/35 poz & ~209 cu.ft. Type III   |
| 6-1/4"       | 4-1/2"         | 10.5#       | ~6307 ft      | ~196 cu.ft. Prem.Lite HS & 225 cu.ft. PLHS w   |

Williams Production Company proposes to drill a vertical well to develop the Mesa Verde formation at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by Independent Contract Archaeology. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will be accessed by an existing road that crosses the NW/SE, SW/NE, NE/NE of section 17, SW/SW, SE/SW of section 9, SE/SW, SW/SE, SE/SE of section 16, NW/NW, NE/NW, NW/NE, SE/NE of section 22, SW/NW, NE/NW section 23, NW/NW, SW/NW, NW/SW, NE/SW, NW/SE, SE, SE of sect. 14, SW/SW, SE/SW of section 13, NW/NE, NE/NE of section 24, SW/NW, SE/NW, NW/SE, SW/SE of section 19, NE/NE of section 30 all of T32N R11W where it joins San Juan County Road CR 2300.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 John C. Thompson TITLE John C. Thompson, Agent DATE 8/21/2002

(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 J. Mankiewicz TITLE DATE NOV - 8 2002

\*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.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

NMOCD

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<br><b>30-045-31187</b> |  | *Pool Code<br><b>72319</b> | *Pool Name<br><b>BLANCO MESAVERDE</b> |
| *Property Code<br><b>17036</b>     | *Property Name<br><b>COX CANYON UNIT</b>             |                            | *Well Number<br><b>8C</b>             |
| *GRID No.<br><b>120782</b>         | *Operator Name<br><b>WILLIAMS PRODUCTION COMPANY</b> |                            | *Elevation<br><b>6810'</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   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| P             | 17      | 32N      | 11W   |         | 1055          | SOUTH            | 585           | EAST           | SAN JUAN |

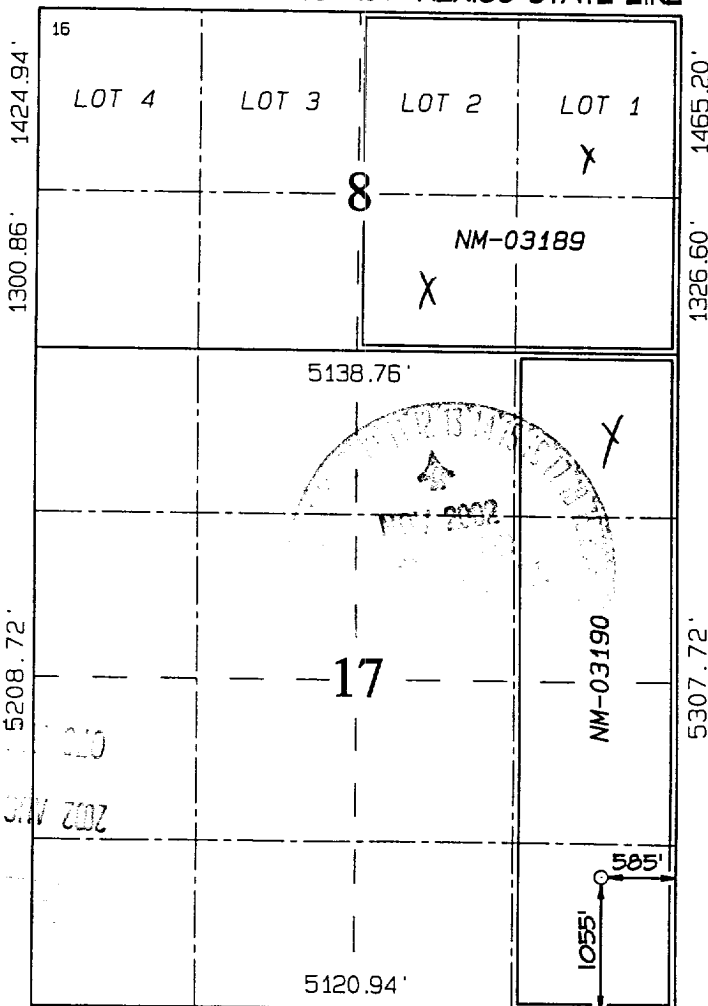
#### <sup>11</sup> Bottom Hole Location If Different From Surface

| 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>328.20 Acres</b><br><b>E/2 Section 8, E/2 E/2 Section 17</b> | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No.<br><b>R-784</b> |
|--|-------------------------------|----------------------------------|---|

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

COLORADO / NEW MEXICO STATE-LINE

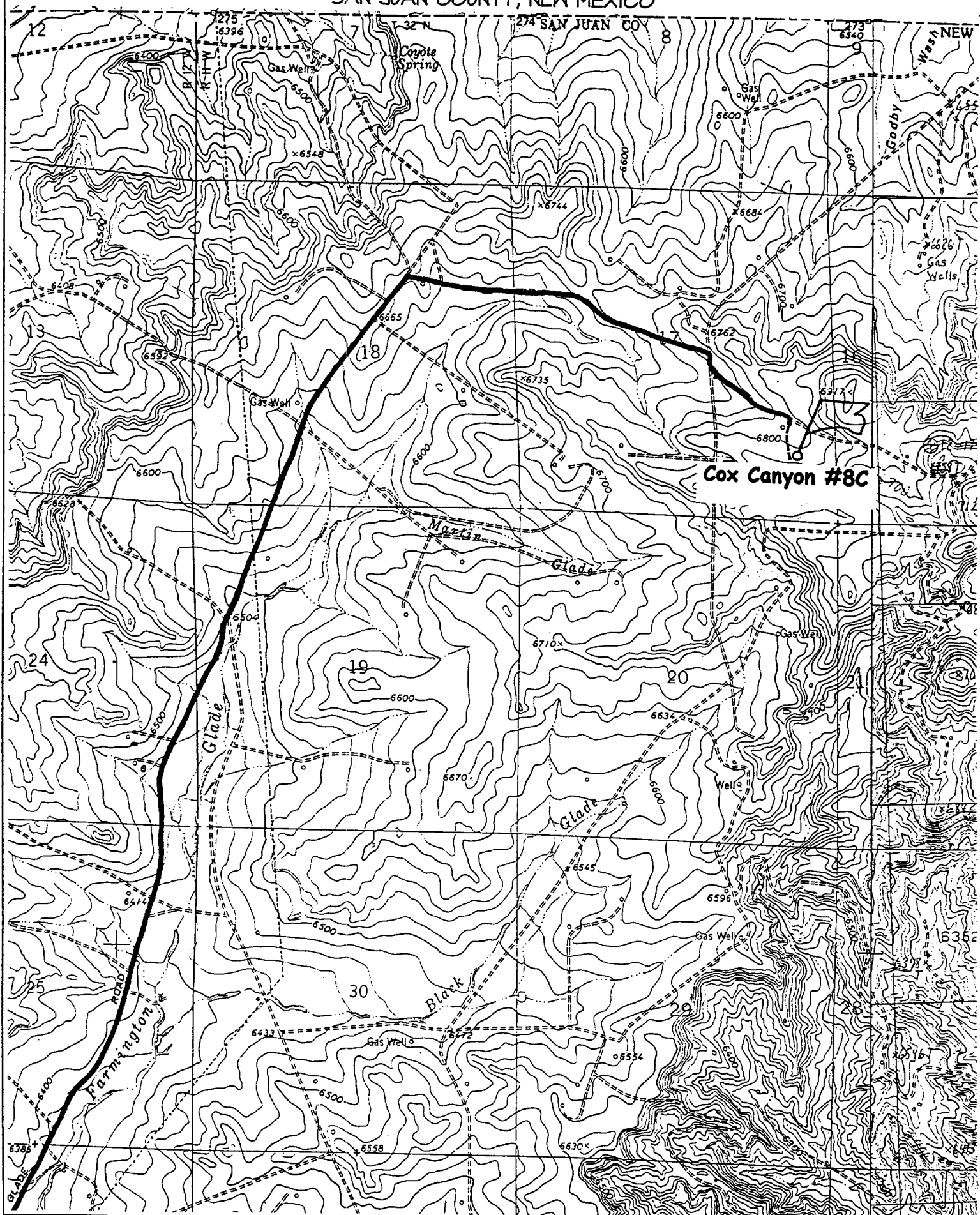


|   |
|---|
| <b><sup>17</sup> OPERATOR CERTIFICATION</b><br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.<br><br>Signature<br><b>John C. Thompson</b><br>Printed Name<br><b>Agent / Engineer</b><br>Title<br><b>08/21/02</b><br>Date   |
| <b><sup>18</sup> SURVEYOR CERTIFICATION</b><br>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.<br>Date of Survey: <b>JULY 14, 2002</b><br>Signature and Seal of Professional Surveyor<br><br><b>JASON C. EDWARDS</b><br>Certificate Number <b>15269</b> |

# WILLIAMS PRODUCTION COMPANY COX CANYON UNIT #8C

1055' FSL & 585' FEL, SECTION 17, T32N, R11W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO





**WILLIAMS PRODUCTION COMPANY**  
***Operations Plan***

*(Note: This procedure will be adjusted on site based upon actual conditions)*

|                               |  |                         |           |
|-------------------------------|--|-------------------------|-----------|
| <b><u>DATE:</u></b>           | 8/20/2002                                | <b><u>FIELD:</u></b>    | Blanco MV |
| <b><u>WELL NAME:</u></b>      | Cox Canyon Unit #8C                      | <b><u>SURFACE:</u></b>  | FEDERAL   |
| <b><u>LOCATION:</u></b>       | SE/4 SE/4 Sec 17-32N-11W<br>San Juan, NM | <b><u>MINERALS:</u></b> | FEDERAL   |
| <b><u>ELEVATION:</u></b>      | 6810' GR                                 | <b><u>LEASE #</u></b>   | NM-03190  |
| <b><u>MEASURED DEPTH:</u></b> | 6307'                                    |                         |           |

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

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

|                      | <b><u>MD</u></b> |               | <b><u>MD</u></b> |
|----------------------|------------------|---------------|------------------|
| Ojo Alamo            | 1617'            | Cliff House   | 5312'            |
| Kirtland             | 1672'            | Menefee       | 5407'            |
| Fruitland            | 3057'            | Point Lookout | 5757'            |
| Pictured Cliffs      | 3482'            | Mancos        | 6082'            |
| Lewis                | 3637'            | Total Depth   | 6307'            |
| Huerfanito Bentonite | 4157'            |               |                  |

**B. LOGGING PROGRAM:** HRI from intermediate casing to TD. GR/D/N over intervals of interest.  
On-site geologist will pick the intervals. ***Subject to change as wellbore conditions dictate.***

**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 and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. 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 (MD)</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"           | +/- 2987'         | 7"                 | 20# K-55               |
| Prod. Casing       | 6-1/4"           | +/- 6307'         | 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:

*(Note: Volumes may be adjusted onsite due to actual conditions)*

1. SURFACE: Slurry: 140sx (176 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: 330sx (689 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: 150x (209 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 = 898 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: 10 bbl Gelled Water space. Lead: 75sx (196ft<sup>3</sup>) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, 1/4 #/sk cello flake and 4% Phenoseal. (Yield = 2.61 cu.ft./sk, Weight = 11.6 #/gal.). Tail: 105\_sx (225 ft<sup>3</sup>) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, 1/4 #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft<sup>3</sup>/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 421ft<sup>3</sup>. WOC 12 hours.

# Williams Production Company, LLC

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

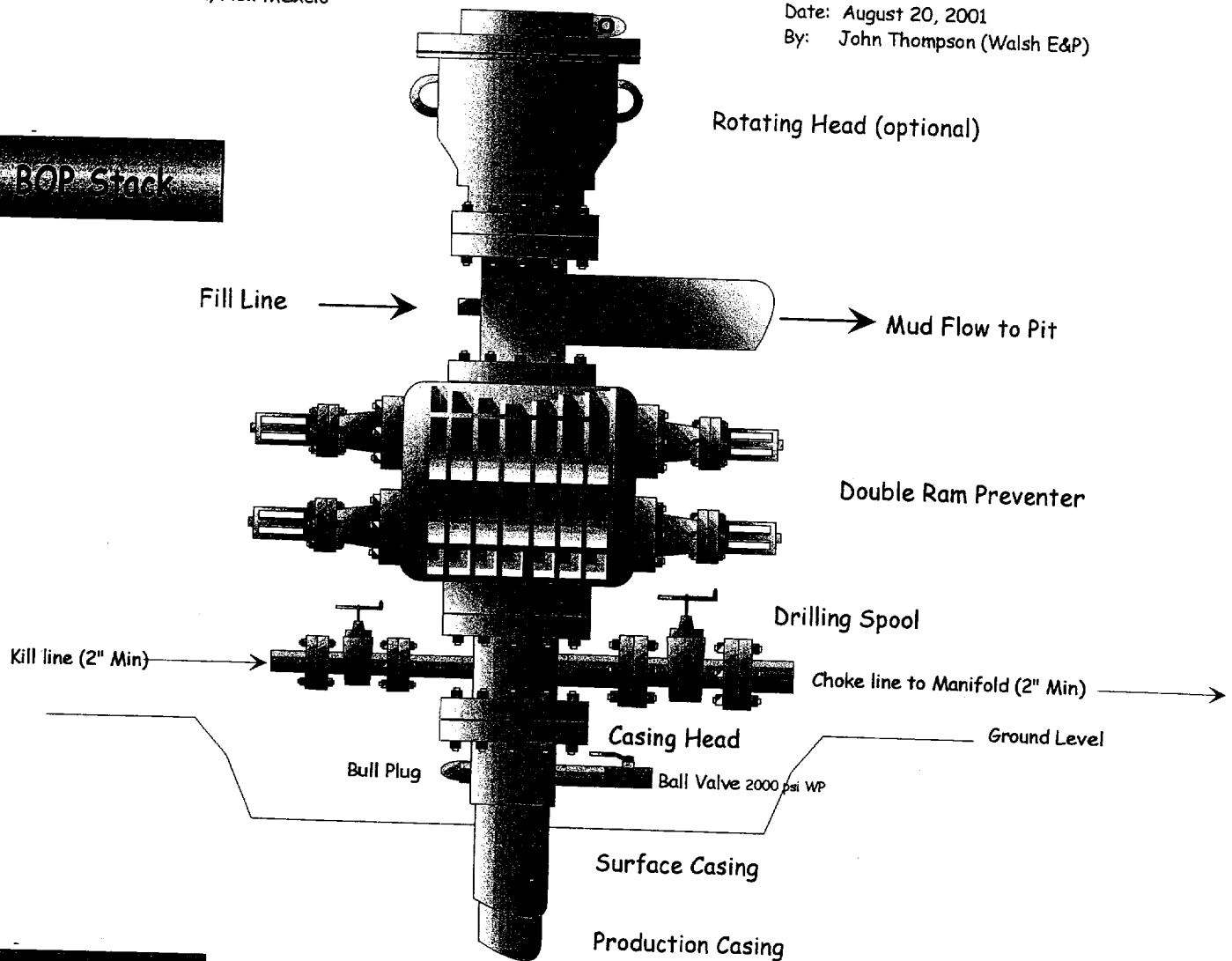
### Typical BOP setup

Location: San Juan Basin, New Mexico

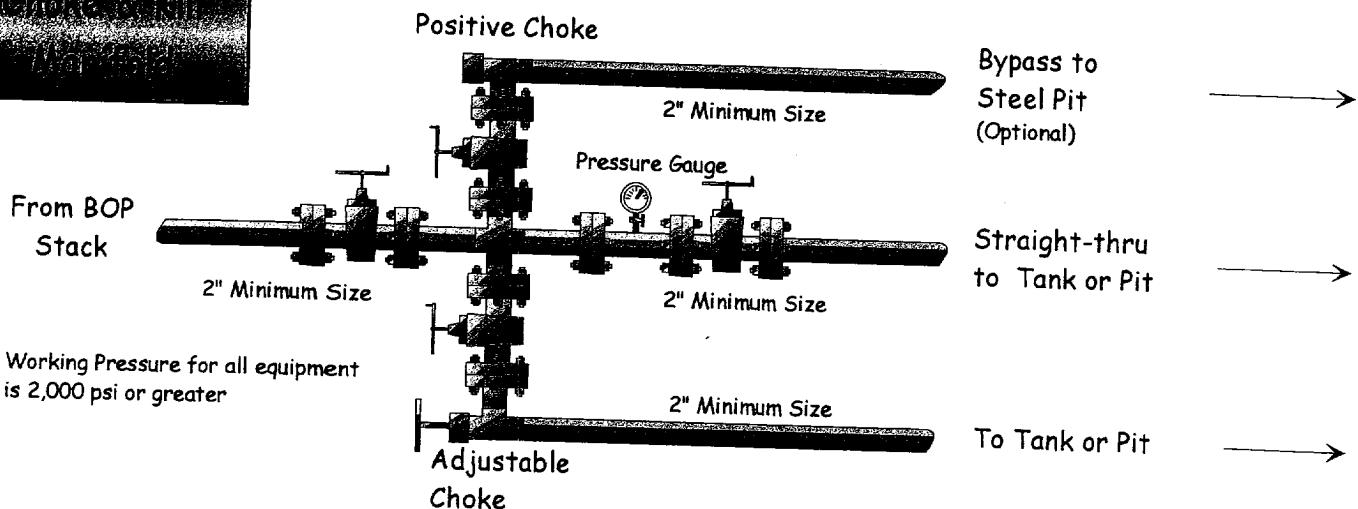
Date: August 20, 2001

By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill  
Manifold



Working Pressure for all equipment  
is 2,000 psi or greater