

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.

SF- 078772

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Rosa Unit

8. FARM OR LEASE NAME, WELL NO.

91 C

9. API WELL NO

30-039-26991

10. FIELD AND POOL OR WILDCAT

Blanco Mesaverde

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

6 Sec. 35, T32N, R6W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

1b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒OTHER ☐SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Williams Production Company, LLC

3. ADDRESS OF OPERATOR

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

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

At Surface 2530' FNL and 2530' FEL

At proposed Prod. Zone

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

~27 miles NE of Blanco, NM

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

167'

16. NO. OF ACRES IN LEASE

2561.86

17. NO. OF ACRES ASSIGNED TO THIS WELL

320

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

1150'

19. PROPOSED DEPTH

6064'

20. ROTARY OR CABLE TOOLS

Rotary

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

6354'

22. APPROX. DATE WORK WILL START\*

May 30, 2002

23.

## PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT/FOOT | SETTING DEPTH | QUANTITY OF CEMENT                             |
|--------------|----------------|-------------|---------------|------------------------------------------------|
| 12-1/4"      | 9-5/8"         | 36.0#       | +/- 500'      | ~352 cu.ft. Type III with 2% CaCl <sub>2</sub> |
| 8-3/4"       | 7"             | 20.0#       | +/- 3631'     | ~853 cu.ft. 65/35 poz & ~238 cu.ft. Type I     |
| 6-1/4"       | 4-1/2"         | 10.5#       | +/- 6081'     | ~141 cu.ft. 50/50 poz & ~199 cu.ft. Pl. HS     |

Williams Production Company, LLC 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 require ~700' of new access road (see Pipeline & Well Plats #3 & #4). The well will be accessed by an existing road that crosses the NE/SW, NW/SE, SW/SE, SE/SE of section 35, SW/SW, SE/SW, NE/SW, SE/NW, NE/NW, NW/NE, NE/NE of section 36, N/2 of section 31 all of T32N, R6W where it joins the main "Rosa Road".

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

TITLE John C. Thompson, Agent

DATE

4/23/02

(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

/s/ Mark Kelly

TITLE

Assistant Field Manager (Minerals)

ACTING

DATE

MAY 24

\*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.

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>30-039-26991</b> |                                               | *Pool Code<br>72319 | *Pool Name<br>BLANCO MESAVERDE |
| *Property Code<br>17033            | *Property Name<br>ROSA UNIT                   |                     | *Well Number<br>91C            |
| *GRID No.<br>120782                | *Operator Name<br>WILLIAMS PRODUCTION COMPANY |                     | *Elevation<br>6354'            |

<sup>10</sup> Surface Location

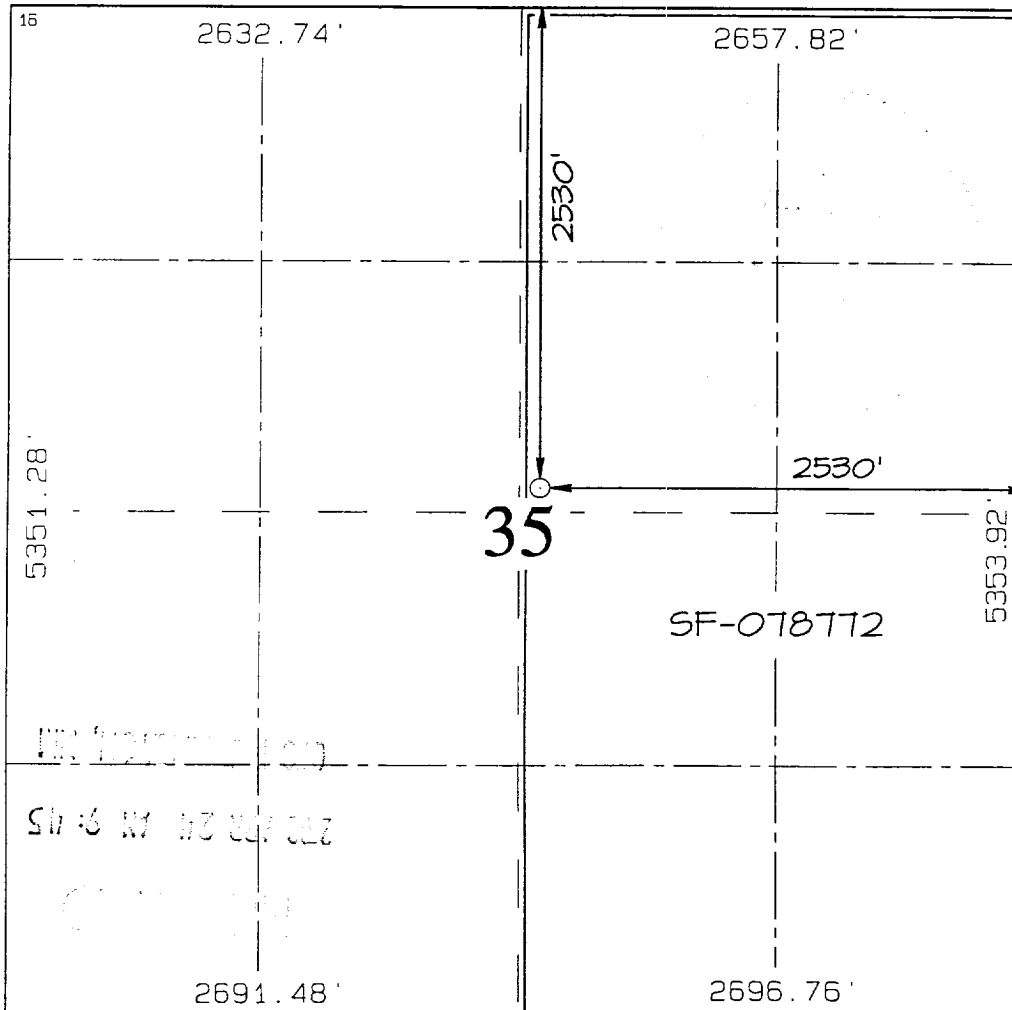
|               |         |          |       |         |               |                  |               |                |            |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
| G             | 35      | 32N      | 6W    |         | 2530          | NORTH            | 2530          | EAST           | RIO ARriba |

<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>320.0 Acres - (E/2) | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <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

|                  |
|------------------|
| Signature        |
| John C. Thompson |
| Printed Name     |
| Agent/Engineer   |
| Title            |
| 4/22/02          |
| 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.

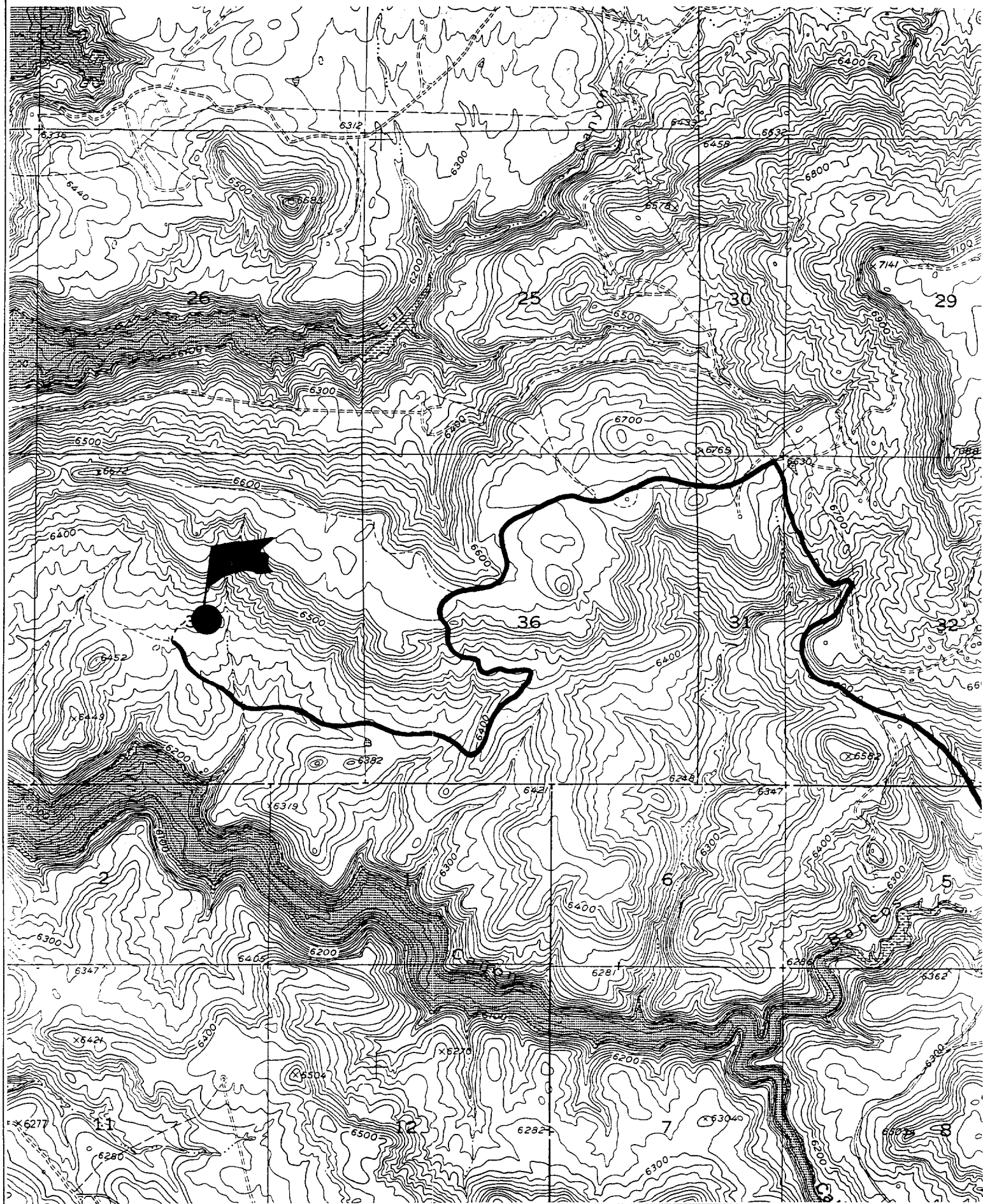
Date of Survey: MARCH 26, 2002

Signature and Seal of Professional Surveyor



**JASON C. EDWARDS**  
Certificate Number 15269

WILLIAMS PRODUCTION COMPANY ROSA UNIT #91C  
2530' FNL 2530' FEL, SECTION 35, T32N, R6W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO



### 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"          | 500'              | 9-5/8"             | 36# K-55               |
| Intermediate       | 8-3/4"           | 3631'             | 7"                 | 20# K-55               |
| Prod. Liner        | 6-1/4"           | 3531'-6081'       | 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: 255sx (352 cu.ft.) of "Type III" + 2% CaCl<sub>2</sub> + ¼ # 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: 410sx (853 ft<sup>3</sup>) of "Type III" 65/35 poz + 8% gel + 1% CaCl<sub>2</sub> + ¼ # cello-flake/sk (Yield = 2.09 ft<sup>3</sup>/sk, Weight = 12.1 #/gal.). Tail: 170x (238 ft<sup>3</sup>) of class "Type III" + 1% CaCl<sub>2</sub> + ¼ # 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 = 1091 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: Scavenger: 30sx of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl (Weight = 11 #/gal). Lead: 70sx (141 ft<sup>3</sup>) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl. (Yield = 2.02 cu.ft./sk, Weight = 12.5 #/gal.). Tail: 100sx (199 ft<sup>3</sup>) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl + .25 #/sk Celloflake + 4% Phenoseal. (Yield = 2.02 ft<sup>3</sup>/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. The 30% excess in lead and tail should cover liner top. Total volume 340ft<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**

Rotating Head (optional)

Fill Line

Mud Flow to Pit

Double Ram Preventer

Drilling Spool

Kill line (2" Min)

Choke line to Manifold (2" Min)

Ground Level

Casing Head

Bull Plug

Ball Valve 2000 psi WP

Surface Casing

Production Casing

**Choke & Kill Manifold**

Positive Choke

Bypass to  
Steel Pit  
(Optional)

2" Minimum Size

Pressure Gauge

From BOP  
Stack

Straight-thru  
to Tank or Pit

2" Minimum Size

2" Minimum Size

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

2" Minimum Size

To Tank or Pit

Adjustable  
Choke

