

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTRECEIVED  
SEP -8 PM 4:03

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

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>SF-078777</b>		
1b. TYPE OF WELL  <b>OIL</b> <input type="checkbox"/> <b>GAS</b> <input checked="" type="checkbox"/> <b>OTHER</b> <input type="checkbox"/> <b>SINGLE</b> <input checked="" type="checkbox"/> <b>MULTIPLE</b> <input type="checkbox"/> <b>WELL</b> <input type="checkbox"/> <b>WELL</b> <input type="checkbox"/> <b>ZONE</b> <input type="checkbox"/> <b>ZONE</b> <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
2. NAME OF OPERATOR <b>Williams Production Company, LLC</b>		7. UNIT AGREEMENT NAME <b>Rosa Unit</b>		
3. ADDRESS OF OPERATOR <b>P. O. Box 316 - Ignacio, CO 81137 (970) 563-3308</b>		8. FARM OR LEASE NAME, WELL NO. <b>372</b>		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *) At Surface <b>2460' FSL and 1205' FWL</b> At proposed Prod. Zone		9. API WELL NO. <b>30039 27492</b>		
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 31, T31N, R4W</b>		10. FIELD AND POOL OR WILDCAT <b>Basin Fruitland Coal</b>		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>30 miles NE of Blanco, NM</b>		12. COUNTY OR PARISH <b>Rio Arriba</b>		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>1205'</b>		13. STATE <b>NM</b>		
16. NO. OF ACRES IN LEASE <b>720</b>		17. NO. OF ACRES ASSIGNED TO THIS WELL <b>294.84 W/2</b>		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. <b>5280'</b>		20. ROTARY OR CABLE TOOLS <b>Rotary</b>		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>6618' GR</b>		22. APPROX. DATE WORK WILL START* <b>April 1, 2004</b>		
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<b>12-1/4"</b>	<b>9-5/8"</b>	<b>36.0#</b>	<b>+/- 300'</b>	<b>~206 cu.ft. Type III with 2% CaCl<sub>2</sub></b>
<b>8-3/4"</b>	<b>7"</b>	<b>20.0#</b>	<b>+/- 3348'</b>	<b>~866 cu.ft. 65/35 poz &amp; ~70 cu.ft. Type I</b>
<b>6-1/4"</b>	<b>5-1/2"</b>	<b>15.5#</b>	<b>+/- 3248' - 3543'</b>	<b>Open hole completion - no cement</b>

Williams Production Company proposes to drill a well to develop the Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans. The surface is under the jurisdiction of the United States Forest Service (USFS), Jicarilla Ranger District of the Carson National Forest. 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 road and pipeline right-of-ways. This well will require approximately 5900' of new access road (see Pipeline & Well Plats #3 & #4). This well will be accessed by Forest Service Road #309 which will connect with the new road in the NW qtr of sec 36, T31N, R5W.

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 <u>Larry Higgins</u> TITLE <u>Larry Higgins, Drlg COM</u> DATE <u>9/8/2003</u>	
(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 <u>[Signature]</u> TITLE <u>AFM</u> DATE <u>5-19-04</u>	

\*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".

NMOC

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

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 <b>30-039-27492</b>		*Pool Code <b>71629</b>	*Pool Name <b>BASIN FRUITLAND COAL</b>
*Property Code <b>17033</b>	*Property Name <b>ROSA UNIT</b>		*Well Number <b>372</b>
*OGRID No. <b>120782</b>	*Operator Name <b>WILLIAMS PRODUCTION COMPANY</b>		*Elevation <b>6618'</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>K</b>	<b>31</b>	<b>31N</b>	<b>4W</b>		<b>2460</b>	<b>SOUTH</b>	<b>1205</b>	<b>WEST</b>	<b>RIO ARriba</b>

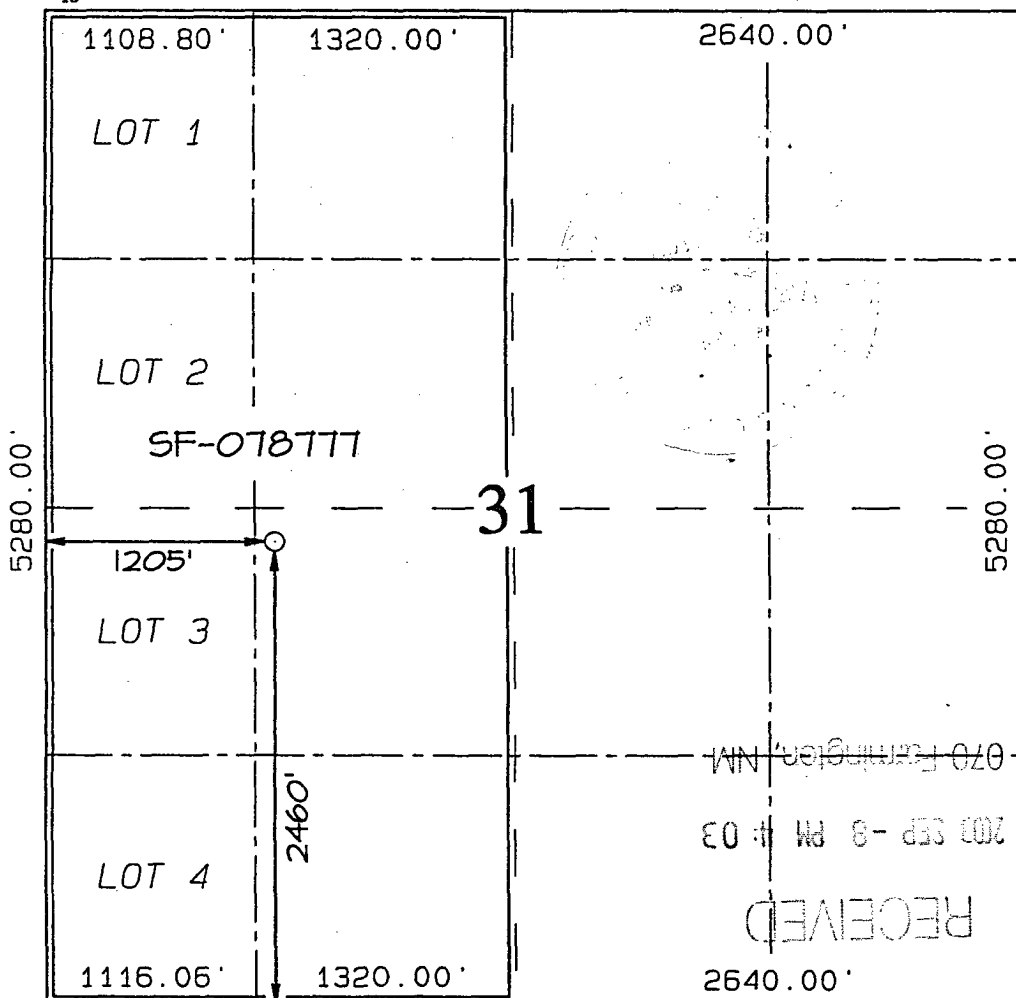
<sup>11</sup> Bottom Hole Location If Different From Surface

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 <b>294.84 Acres - (W/2)</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<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

<sup>16</sup>



<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

*Larry Higgins*  
Signature

**LARRY HIGGINS**  
Printed Name

**DRLE COM**  
Title

**9-8-03**  
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: **JULY 11, 2002**

Signature and Seal of Professional Surveyor



**JASON C. EDWARDS**  
Certificate Number 15269



## WILLIAMS PRODUCTION COMPANY

### Operations Plan

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

<b><u>DATE:</u></b>	9/8/2003		
<b><u>WELLNAME:</u></b>	Rosa #372	<b><u>FIELD:</u></b>	Basin Fruitland Coal
<b><u>LOCATION:</u></b>	NE/4 SW/4 Sec. 31, T31N, R4W Rio Arriba, NM	<b><u>SURFACE:</u></b>	Forest
<b><u>ELEVATION:</u></b>	6618' GR	<b><u>MINERALS:</u></b>	Federal
<b><u>TOTAL DEPTH:</u></b>	3543'	<b><u>LEASE #</u></b>	SF-078777

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

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

Ojo Alamo	2773'
Kirtland	2958'
Fruitland	3258'
Top of Coal	3368'
Base of Coal	3443'
Pictured Cliffs	3443'
Total Depth	3543'

**B. LOGGING PROGRAM:** High resolution SDL from TD to Intermediate casing. DSN from TD to surface casing.

**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. Treat for lost circulation as necessary. Expect 100% returns prior to cementing. Notify Engineering of any mud losses. If coal is detected before 3368' DO NOT drill deeper until Engineering is contacted.

**B. Drilling Fluid:** Coal section will be drilled with Fruitland Coal water. Mud logger will pick TD at +/- 3543'.

**C. MUD LOGGING PRORAM:** Mud logger will be on location at drill out below 7" casing to TD.

**C. 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</u>	<u>CASING SIZE</u>	<u>WT. &amp; GRADE</u>
Surface	12-1/4"	+/- 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 3348'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3248-3543'	5-1/2"	15.5# K-55

#### **B. FLOAT EQUIPMENT:**

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self- fill insert float. Place float one(1) joint above the shoe and five(5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 1585' to the surface. Total centralizers = 5 regular and 14 turbulent.
3. PRODUCTION LINER: 5-1/2"liner with notched collar on bottom.

#### **C. CEMENTING:**

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

1. SURFACE: Use 155 sx (206 cu.ft.) of "Type III" with 2% CaCl<sub>2</sub> and 1/4# of cello-flake/sk (Yield = 1.41 cu.ft./sk, Weight = 14.5 #/gal.). Use **100% excess** to circulate the surface. WOC 12 hours. Total volume = 206 cu.ft. Test to 1500#.
2. INTERMEDIATE: Lead - 415 sx (866 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl<sub>2</sub> and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 50 sx (70cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl<sub>2</sub> (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **100% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry.** Total volume = 876 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION LINER: Open hole completion. No cement.

# Williams Production Company, LLC

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

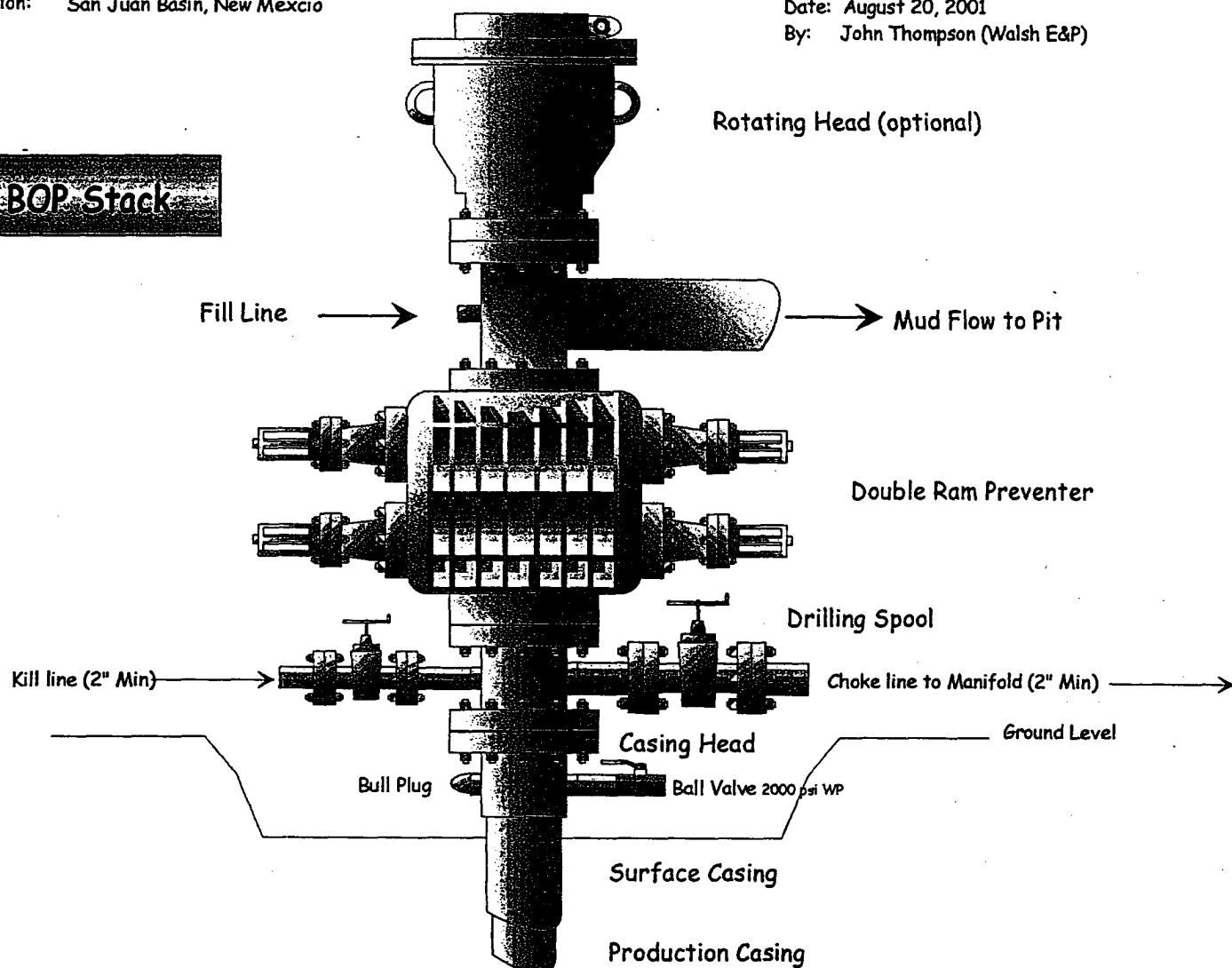
### Typical BOP setup

Location: San Juan Basin, New Mexico

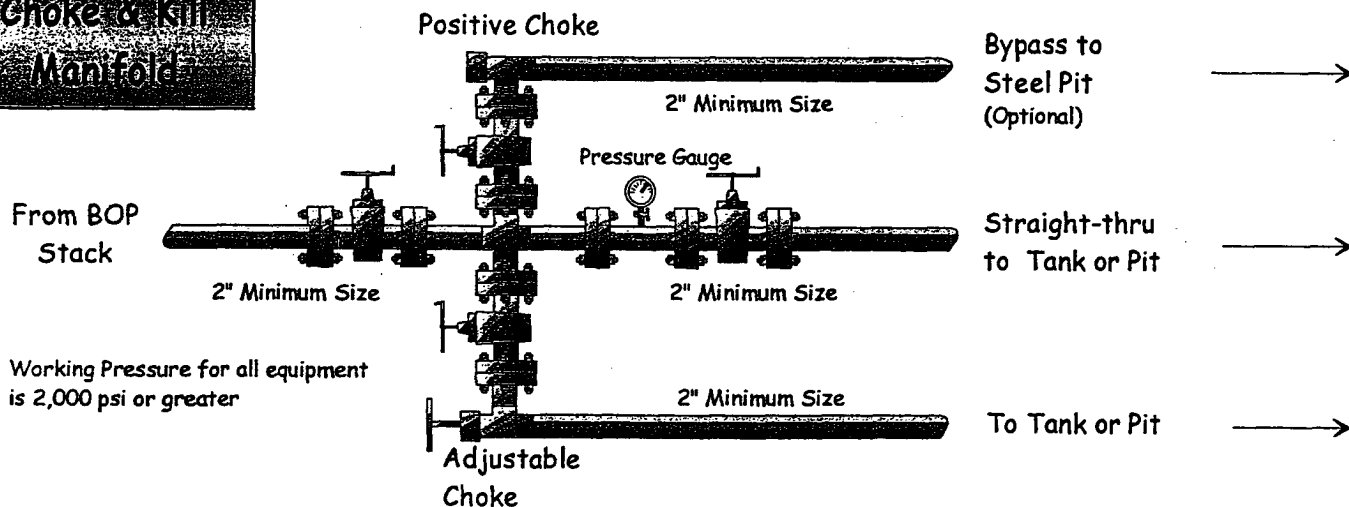
Date: August 20, 2001

By: John Thompson (Walsh E&P)

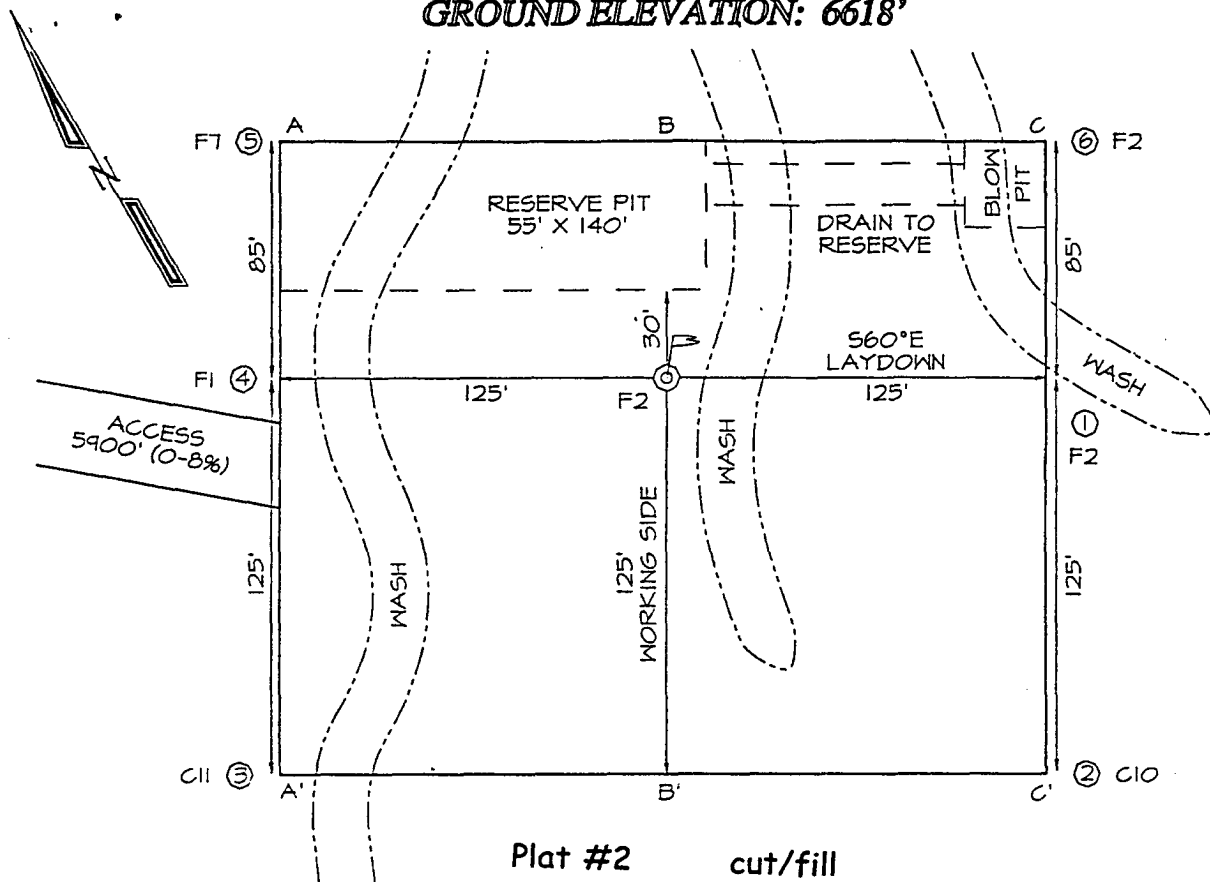
**BOP Stack**



**Choke & Kill Manifold**



**WILLIAMS PRODUCTION COMPANY ROSA UNIT #372**  
**2460' FSL & 1205' FWL, SECTION 31, T31N, R4W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO**  
**GROUND ELEVATION: 6618'**



**LATITUDE: 36°51'20"**  
**LONGITUDE: 107°17'59"**  
 DATUM: NAD1927

