

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87405

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address Williams Production Company, LLC c/o New Horizons Consultants, Inc. P.O. Box 1391 Cortez, CO 81321		<sup>2</sup> OGRID Number 120782
<sup>3</sup> Property Code 17033	<sup>4</sup> Property Name Rosa Unit	<sup>5</sup> API Number 30 - 045 - 33245
<sup>9</sup> Proposed Pool 1 Basin Fruitland Coal		<sup>10</sup> Proposed Pool 2

<sup>7</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	16	31N	6W		1820	NORTH	1940	EAST	San Juan

<sup>8</sup> Proposed 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
I	16	31N	6W		2535	SOUTH	1180	EAST	San Juan

Additional Well Information

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code M	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 6328'
<sup>16</sup> Multiple Yes	<sup>17</sup> Proposed Depth +/- 3482' MD	<sup>18</sup> Formation Basin Fruitland Coal	<sup>19</sup> Contractor Aztec Well Services	<sup>20</sup> Spud Date When Approved
Depth to Groundwater 50' - 100'		Distance from nearest fresh water well >1000'		Distance from nearest surface water >1200'
Pit: Liner: Synthetic X 12 mils thick Clay <input type="checkbox"/> Pit Volume: 10,000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water X Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8"	36	+/- 300'	190	Surface
8-3/4"	7"	20#	+/- 3,343'	455 / 50	Surface
6-1/4"	5-1/2"	15.5	3243' - 3482'	N/A	Open Hole

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Drilling Plan, Surface Use Plan and pit application are attached.

Federal surface use is necessary for construction and drilling of this well.

NO ACTION FOR directional survey

ORIGINAL

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit or an (attached) alternative OCD-approved plan <input type="checkbox"/>		OIL CONSERVATION DIVISION	
Printed name: Don Hamilton		Approved by:	
Title: Agent		Title: DEPUTY OIL & GAS INSPECTOR, DIST. 48	
E-mail Address: starpoint@ctv.net		Approval Date: JUL 18 2005 Expiration Date: JUL 18 2006	
Date: 7/8-05	Phone: 435-719-2018	Conditions of Approval Attached <input type="checkbox"/>	

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>30-045-33245</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>274A</b>
*GRID No. <b>120782</b>	*Operator Name <b>WILLIAMS PRODUCTION COMPANY</b>		*Elevation <b>6328'</b>

#### 10 Surface Location

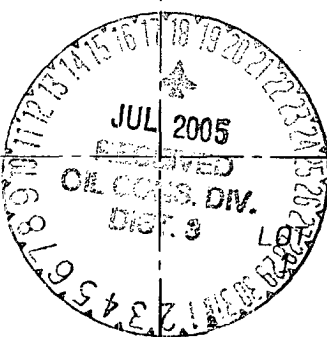

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	16	31N	6W		1820	NORTH	1940	EAST	SAN JUAN

#### 11 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
I	16	31N	6W		2535	SOUTH	1180	EAST	SAN JUAN

12 Dedicated Acres <b>320.0 Acres - (E/2)</b>	13 Joint or Infill	14 Consolidation Code	15 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

 <b>16</b> TRACT 40 TRACT 39 5277.36' 1820' 1200.0' 539°46.6'E 1180' 5280.00' 5280.00'	<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <u>Don Hamilton</u> Signature <u>Don Hamilton</u> Printed Name <u>Agent</u> Title <u>7-8-05</u> Date
	<b>18 SURVEYOR CERTIFICATION</b> 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 Revised: MAY 5, 2005 Survey Date: DECEMBER 22, 2004 Signature and Seal of Professional Surveyor  <u>JASON C. EDWARDS</u> Certificate Number 15269

Submit 3 Copies To Appropriate District Office  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103

May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO.
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator <b>Williams Production Company, LLC</b>		6. State Oil & Gas Lease No. <b>SF-078766</b>
3. Address of Operator <b>999 Goddard Ave, Ignacio, CO 81137</b>		7. Lease Name or Unit Agreement Name <b>Rosa Unit</b>
4. Well Location Unit Letter <b>G</b> : <b>1,820</b> feet from the <b>N</b> line and <b>1,940</b> feet from the <b>E</b> line Section <b>16</b> Township <b>31N</b> Range <b>6W</b> NMPM County <b>San Juan</b>		8. Well Number <b>274A</b>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <b>6,328' GL</b>		9. OGRID Number <b>120782</b>
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat <b>Basin Fruitland Coal</b>
Pit type <u>Drilling</u> Depth to Groundwater <u>50-100'</u> Distance from nearest fresh water well <u>&gt;1000 ft</u> Distance from nearest surface water <u>&gt;1,200 ft</u>		
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume _____ bbls; Construction Material _____		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

**NOTICE OF INTENTION TO:**  
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
OTHER: ☐

**SUBSEQUENT REPORT OF:**  
REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐  
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Pit to be located approximately 50 to 75 feet from well head. Pit will be for multi-use drilling and completion to avoid additional site disturbance and pit will be considered out of service once production tubing set. Pit to be constructed, operated and closed in accordance with NMOCD guidelines and Williams procedures.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Don Hamilton TITLE Agent DATE 7/8/05

Type or print name Don Hamilton E-mail address: starpoint@etv.net Telephone No. 435-719-2018  
**For State Use Only**

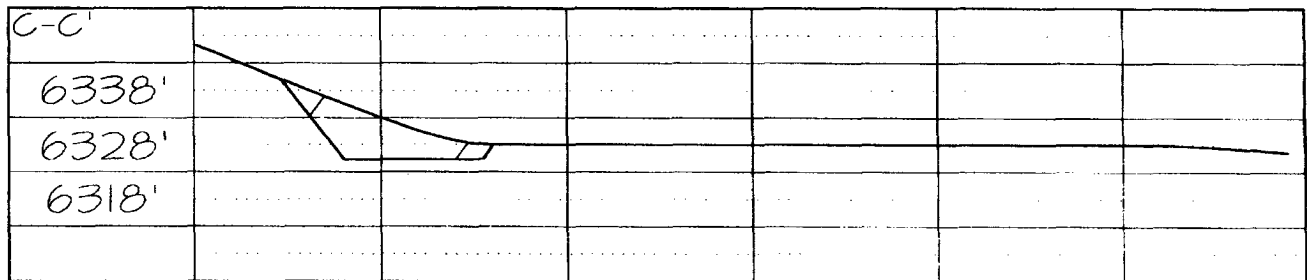
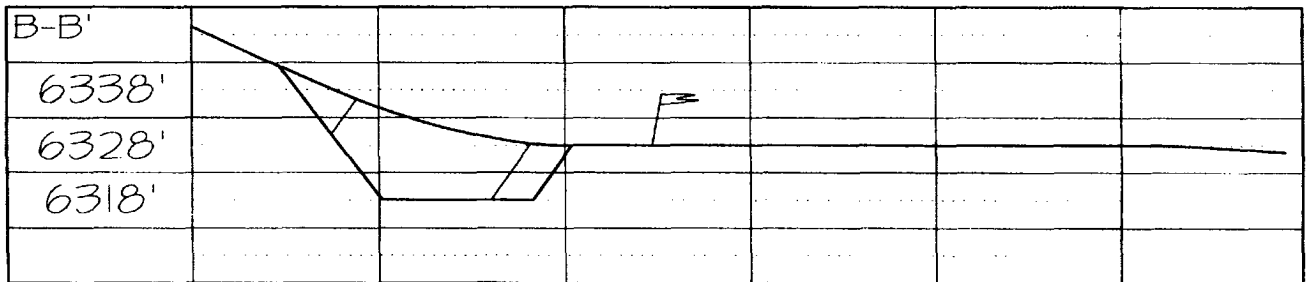
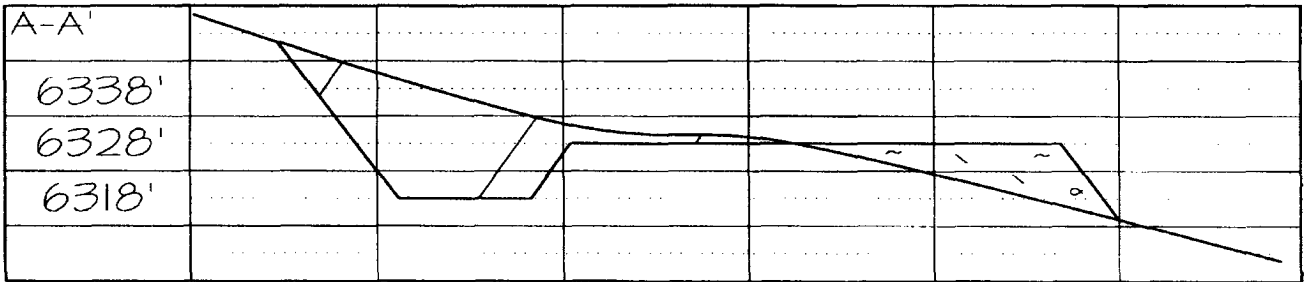
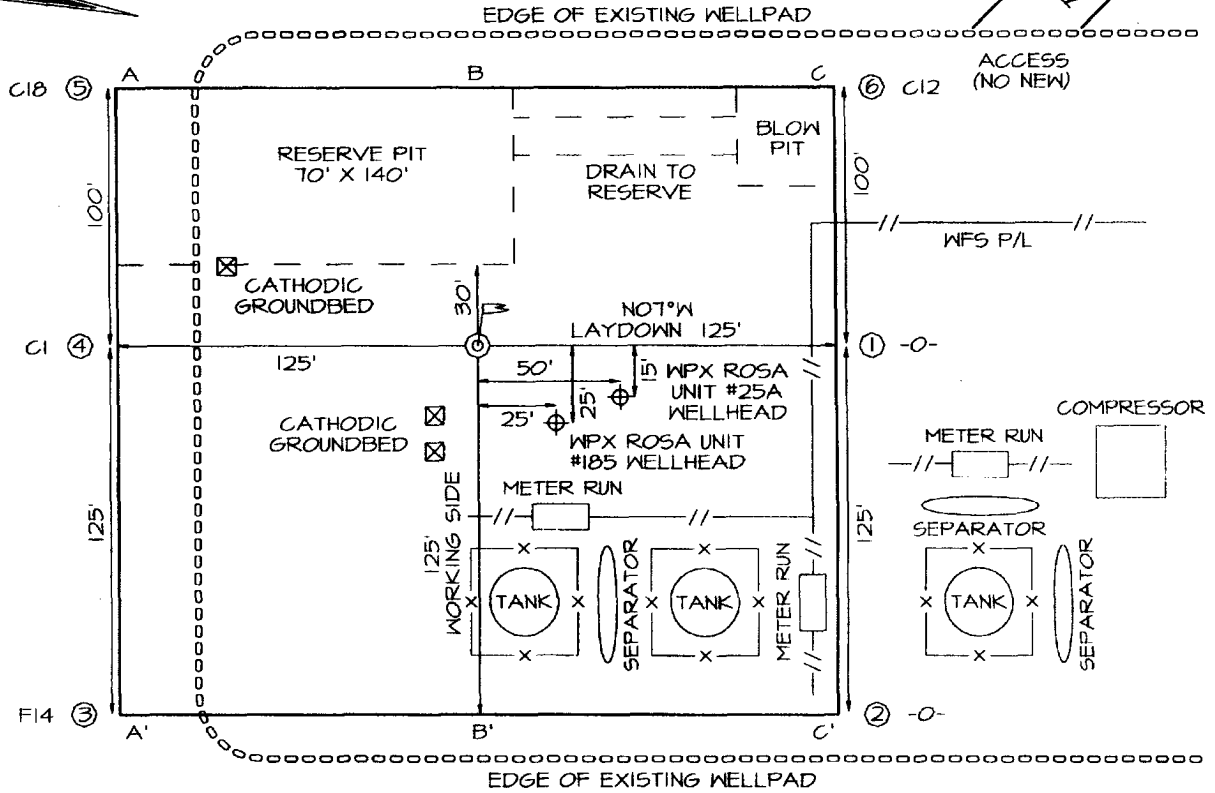
APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 1 DATE JUL 18 2005  
Conditions of Approval (if any): \_\_\_\_\_

**WILLIAMS PRODUCTION COMPANY ROSA UNIT #274A**  
**1820' FNL & 1940' FEL, SECTION 16, T31N, R6W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6328'**



EXISTING  
ROADWAY

LATITUDE: 36°54'07"  
 LONGITUDE: 107°27'55"  
 DATUM: NAD1927





## **WILLIAMS PRODUCTION COMPANY**

### **Operations Plan**

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

**DATE:** 7/8/2005

**WELLNAME:** Rosa Unit #274A      **FIELD:** Basin Fruitland Coal

**BH LOCATION:** NESE Sec 16-31N-6W      **SURFACE:** STATE  
San Juan, NM

**SURF. LOCATION:** SWNE Sec 16-31N-6W

**ELEVATION:** 6,328' GR      **MINERALS:** BLM

**TOTAL DEPTH:** 3,482'      **LEASE #** STATE/FED

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

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

NAME	TVD	MD	NAME	TVD	MD
San Jose	Surface	Surface	Top Coal	3,047	3,362
Nacimiento	1,167	1,203	Bottom Coal	3,167	3,482
Ojo Alamo	2,337	2,627	Pictured Cliffs	3,167	3,482
Kirtland	2,452	2,751	TD	3,167	3,482
Fruitland	2,912	3,225			

**B. LOGGING PROGRAM:** None

**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 3,343 (MD) 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 .
- C. MUD LOGGING PRORAM:** Mud logger will be on location at drill out below 7" casing to TD.

- D. **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 BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections 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"	+/- 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 3,343'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,243'-3,482'	5-1/2"	15.5# 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 (4) 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 (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
3. PRODUCTION LINER / CASING: 4-1/2" & 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place centralizers as needed across selected production intervals.

#### C. CEMENTING:

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

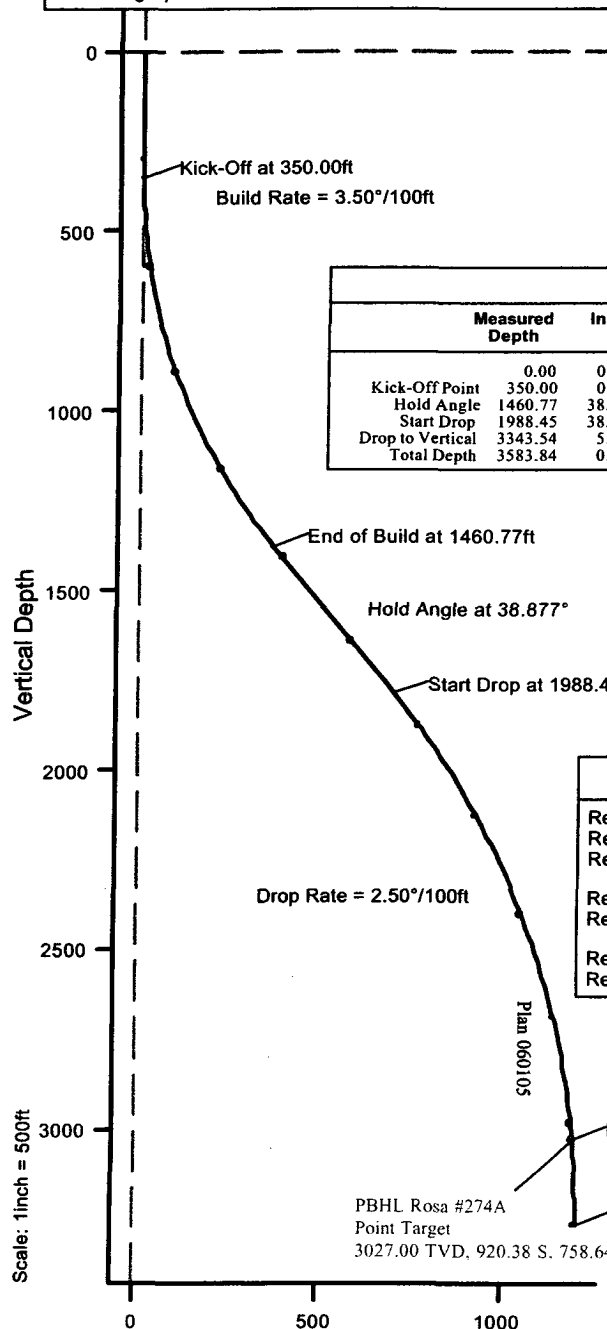
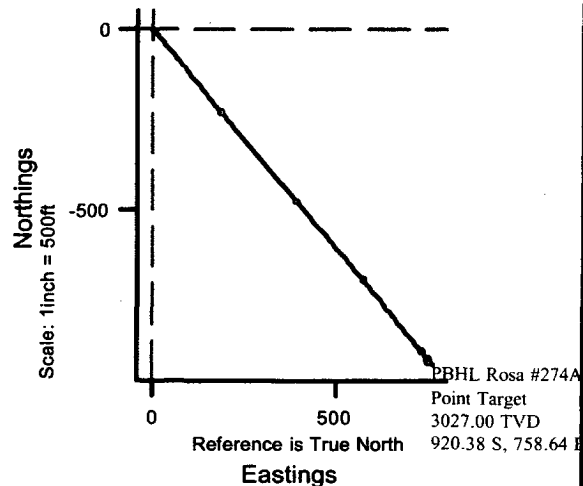
1. SURFACE: Use 190 sx (264 cu.ft.) of "Type III" with 2% CaCl<sub>2</sub> and 1/4# of cello-flake/sk (Yield = 1.41 cu.ft./sk, Weight = 14.5 #/gal.). Use **100% excess** to circulate the surface. WOC 12 hours. Total volume = 264 cu.ft. Test to 1500#.
2. INTERMEDIATE: Lead - 455 sx (951 cu.ft.) of "Type 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 = 1,021 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.

New Mexico  
San Juan County  
Sec. 16-T31N-R06W  
Rosa Unit #274A  
Plan 060105



**Rosa Unit #274A Surface Location**

RKB Elevation: 6340.00ft above Mean Sea Level  
Ref. NE Corner of Sec. 16: 1820.00 S, 3337.36 E  
Ref. Global Coordinates: 2147784.70 N, 607661.16 E  
Ref. Geographical Coordinates: 36° 54' 07.0509" N, 107° 27' 54.4423" W



**Plan 060105 Proposal Data**

	Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Eastings	Vertical Section	Dogleg Rate
Kick-Off Point	350.00	0.000	0.000	350.00	0.00 N	0.00 E	0.00	0.00
Hold Angle	1460.77	38.877	140.502	1377.48	279.81 S	230.64 E	362.61	3.50
Start Drop	1988.45	38.877	140.502	1788.28	535.38 S	441.30 E	693.81	0.00
Drop to Vertical	3343.54	5.000	140.502	3027.00	920.38 S	758.64 E	1192.74	2.50
Total Depth	3583.84	0.000	0.000	3267.00	928.46 S	765.31 E	1203.22	2.08

**Plan 060105 Bottom Hole Location**

Ref. RKB(6328' +12' KB): 3267.00ft  
Ref. Ground Level: 3386.00ft  
Ref. Mean Sea Level: -3073.00ft  
Ref. Wellhead: 928.46 S, 765.31 E (True North)  
Ref. NE Corner of Sec. 16: 2748.37 S, 4102.78 E (True North)  
Ref. Global Coordinates: 2146859.20 N, 608430.05 E  
Ref. Geographical Coordinates: 36° 53' 57.8697" N, 107° 27' 45.0200" W

# Williams

## Well Control Equipment Schematic for 2M Service

### Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

