

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. <b>NMSF-0078892</b>	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No. <b>Rosa Unit</b>	
8. Lease Name and Well No. <b>392A</b>	
9. API Well No. <b>30-039-29799</b>	
10. Field and Pool, or Exploratory <b>Basin Fruitland Coal</b>	
11. Sec., T., R., M., or Blk. and Survey or Area <b>Section 15. 31N. 4W</b>	
12. County or Parish <b>Rio Arriba</b>	13. State <b>NM</b>
14. Distance in miles and direction from nearest town or post office* <b>approximately 34 miles northeast of Blanco, New Mexico</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>10'</b>	16. No. of Acres in lease <b>1920.00</b>
17. Spacing Unit dedicated to this well <b>320.0 acres E/2</b>	18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft. <b>50'</b>
19. Proposed Depth <b>6212</b>	20. BLM/BIA Bond No. on file <b>UT0047 UT0899</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6878 GR</b>	22. Approximate date work will start* <b>June 1, 2006</b>
23. Estimated duration <b>1 month</b>	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Larry Higgins</i>	Name (Printed/Typed) <b>Larry Higgins</b>	Date <b>2006-31-06</b>
Title <b>Drilling COM</b>		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) <b>AFM</b>	Date <b>5/8/06</b>
Title <b>AFM</b>	Office <b>FFO</b>	

070 FARMINGTON  
 RECEIVED  
 MAY 8 2006

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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on reverse)

Williams Exploration and Production Company, LLC, proposes to drill a directional well to develop the Basin Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans.

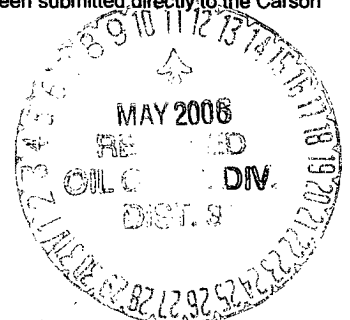
The well pad surface is under jurisdiction of the USDA Forest Service, Carson National Forest, Jicarilla Ranger District.

This location has been archaeologically surveyed by La Plata Archaeological Consultants. Copies of their report have been submitted directly to the Carson National Forest.

This APD is also serving as an application to obtain a 58.90-foot gas pipeline tie.

*directional survey*

NMOCDC



This location is subject to technical and procedural review pursuant to 43 CFR 3165.3 and approval pursuant to 43 CFR 3165.4

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE IN ACCORDANCE WITH ATTACHED FEDERAL REQUIREMENTS.

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised June 10, 2003

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

1220 South St. Francis Dr.  
Santa Fe, NM 87505

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29799		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 17033	*Property Name ROSA		*Well Number 392A
*GRID No. <del>120728</del> 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6878

2005 FEB  
OIL FARMING  
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FEB 10 2005

10 Surface Location

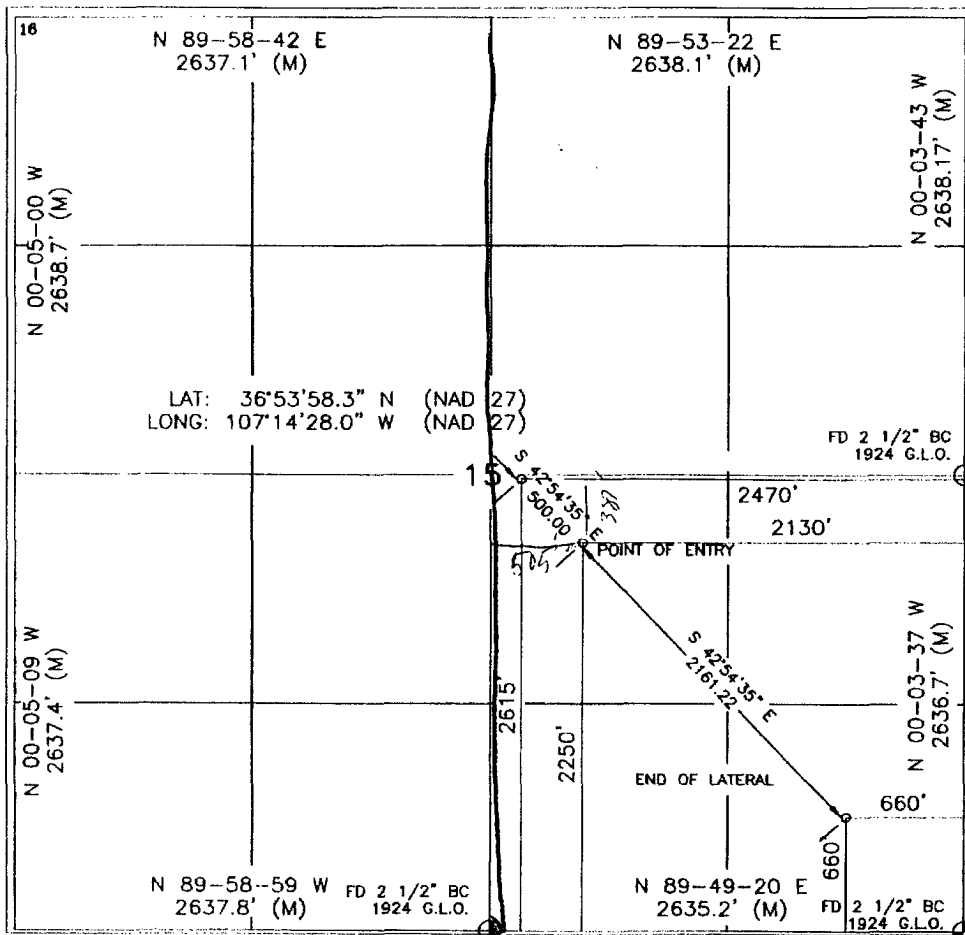
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	15	31-N	4-W		2615	SOUTH	2470	EAST	RIO ARriba

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
P	15	31-N	4-W		660	SOUTH	660	EAST	RIO ARriba

*Dedicated Acres	*Joint or Infill	*Consolidation Code	*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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *Larry Higgins*  
 Printed Name: LARRY HIGGINS  
 Title: DRILLING COM  
 Date: 1-31-06

18 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.

Signature and Title of Professional Surveyor:  
 JOHN VUKONICH  
 14831  
 Certificate Number

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 88240  
 District II  
 1301 W. Grand Ave., Artesia, NM 88210  
 District III  
 1000 Rio Brazos Rd., 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-103  
 May 27, 2004

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

WELL API NO. <b>30-039-29799</b>
5. Indicate Type of Lease FEDERAL X STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. <b>NMSF-0078892</b>
7. Lease Name or Unit Agreement Name <b>Rosa</b>
8. Well Number <b>392A</b>
9. OGRID Number <b>120782</b>
10. Pool name or Wildcat <b>Basin Fruitland Coal</b>

**SUNDRY NOTICES AND REPORTS ON WELLS**  
 (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.)

1. Type of Well: Oil Well  Gas Well  Other

2. Name of Operator  
**Williams Production Company, LLC**

3. Address of Operator  
**POB 640, Aztec, NM**

4. Well Location  
 Unit Letter **F** : **2615** feet from the **S** line and **2720** feet from the **E** line  
 Section **15** Township **31N** Range **04W** NMPM County **Rio Arriba**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
**6878' GR**

Pit or Below-grade Tank Application  or Closure

Pit type Drig/Completion Depth to Groundwater >100 ft Distance from nearest fresh water well >1000 ft Distance from nearest surface water >500 ft

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume \_\_\_\_\_ bbls: Construction Material \_\_\_\_\_

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

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.

Drilling/Completion pit to be located approximately 50 to 75 feet from well head. Pit 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 *Michael K. Lane* TITLE EH&S Specialist DATE 01/31/06  
 Type or print name **Michael K. Lane** E-mail address: **myke.lane@williams.com** Telephone No. **505-634-4219**

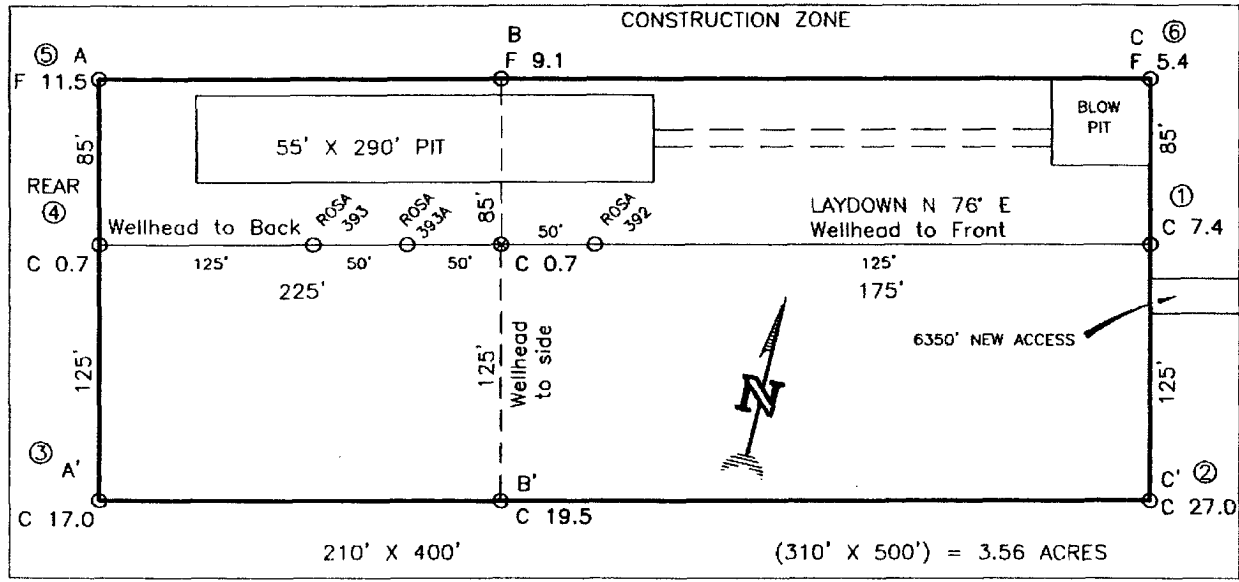
**For State Use Only**

APPROVED BY: *[Signature]* TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 9 DATE MAY 08 2006  
 Conditions of Approval (if any): \_\_\_\_\_

WILLIAMS PRODUCTION COMPANY  
 ROSA NO. 392A, 2615' FSL 2470' FEL  
 SECTION 15, T31N, R4W, N.M.P.M., RIO ARRIBA COUNTY, N. M.  
 GROUND ELEVATION: 6878', DATE: NOVEMBER 4, 2004

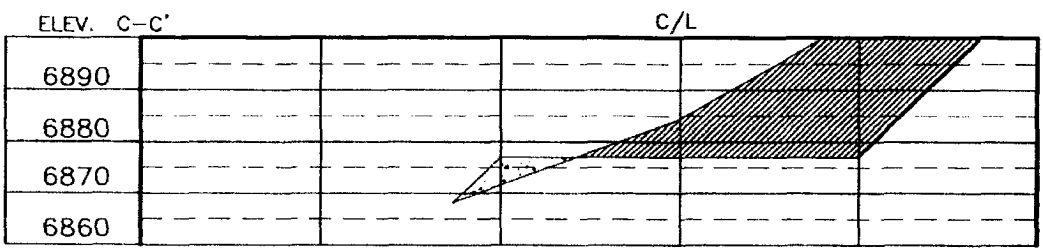
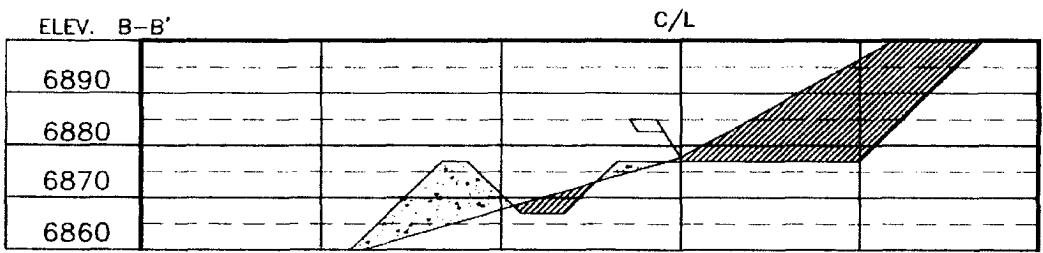
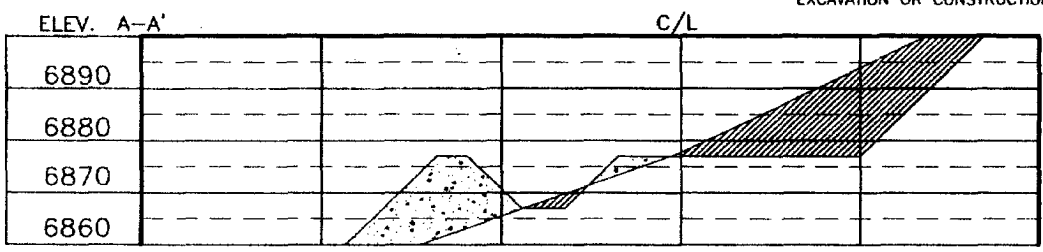
LAT. = 36°53'58.3" N  
 LONG. = 107°14'28.0" W  
 NAD 27

PLAT #1



RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW -- 3' WIDE AND 1' ABOVE SHALLOW SIDE).  
 BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

REVISION:	DATE	REVISION BY:
CORRECT CUT-FILL VALUES	04/13/05	B.L.

**Daggett Enterprises, Inc.**  
 Surveying and Oil Field Services  
 P. O. Box 15088 • Farmington, NM 87401  
 Phone (505) 326-1772 • Fax (505) 326-6019  
 NEW MEXICO L.S. No. 14831

DRAWN BY: G.V.  
 CHECKED: WF014, 392ACFB  
 DATE: 11/24/04



**WILLIAMS PRODUCTION COMPANY**

**Operations Plan**

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

**DATE:** 2/2/2006

**WELLNAME:** Rosa #392A                                    **FIELD:** Basin Fruitland Coal

**SURF LOCATION:** NWSE Sec. 15-31N-4W                                    **SURFACE:** Forest  
Rio Arriba, NM

**BH LOCATION** SESE Sec 15-31N-4W

**ELEVATION:** 6,878' GR                                    **MINERALS:** Federal

**TOTAL DEPTH:** 6,212'                                    **LEASE #** SF-078892

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

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

	<b><u>TVD</u></b>	<b><u>MD</u></b>		<b><u>TVD</u></b>	<b><u>MD</u></b>
San Jose	Surface	Surface	Top Coal	3,752	3,984
Nacimiento	2,017	2,017	Top Target Coal	3,752	3,984
Ojo Alamo	3,157	3,157	Bottom Target Coal	3,762	
Kirtland	3,282	3,282	Base Coal	3,762	
Fruitland	3,617	3,657	Picture Cliffs	N/A	
			TD	3,756	6,212

**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.
- B. **Drilling Fluid:** Horizontal section will be drilled with Calcium Chloride water.
- C. **MUD LOGGING PRORAM:** Mud logger will be on location from 500' above Ojo Alamo to TD of intermediate casing. Then from drillout of intermediate 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"	+/- 3,935'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,278'-6,212'	4-1/2" perfed	10.5# K-55

\*Note: All casing depths are measured depths.

**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. (N<sup>T</sup>L-FRA 90-1).
3. PRODUCTION LINER: 4-1/2" perforated liner with guide shoe on bottom.

**C. CEMENTING:**

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

1. SURFACE: Use 170 sx (237 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~~ <sup>240</sup> cu.ft. Test to 1500#.
2. INTERMEDIATE: Lead - 475 sx (995 cu.ft.) of Premium Light 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 - 100 sx (139cu.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 **120% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry.** Total volume = 1,134 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.

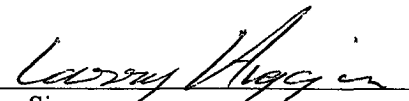
**IV COMPLETION**

**A. PRESSURE TEST**

1. Pressure test 7" casing to 3300# for 15 minutes.

**B. RUNNING TUBING**

1. Fruitland Coal: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.375" ID) on top of bottom joint. Land tubing at approximately 3,730'.

  
 Gary Sizemore  
 Sr. Drilling Engineer

FOR

# WILLIAMS PRODUCTION Company, LLC

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

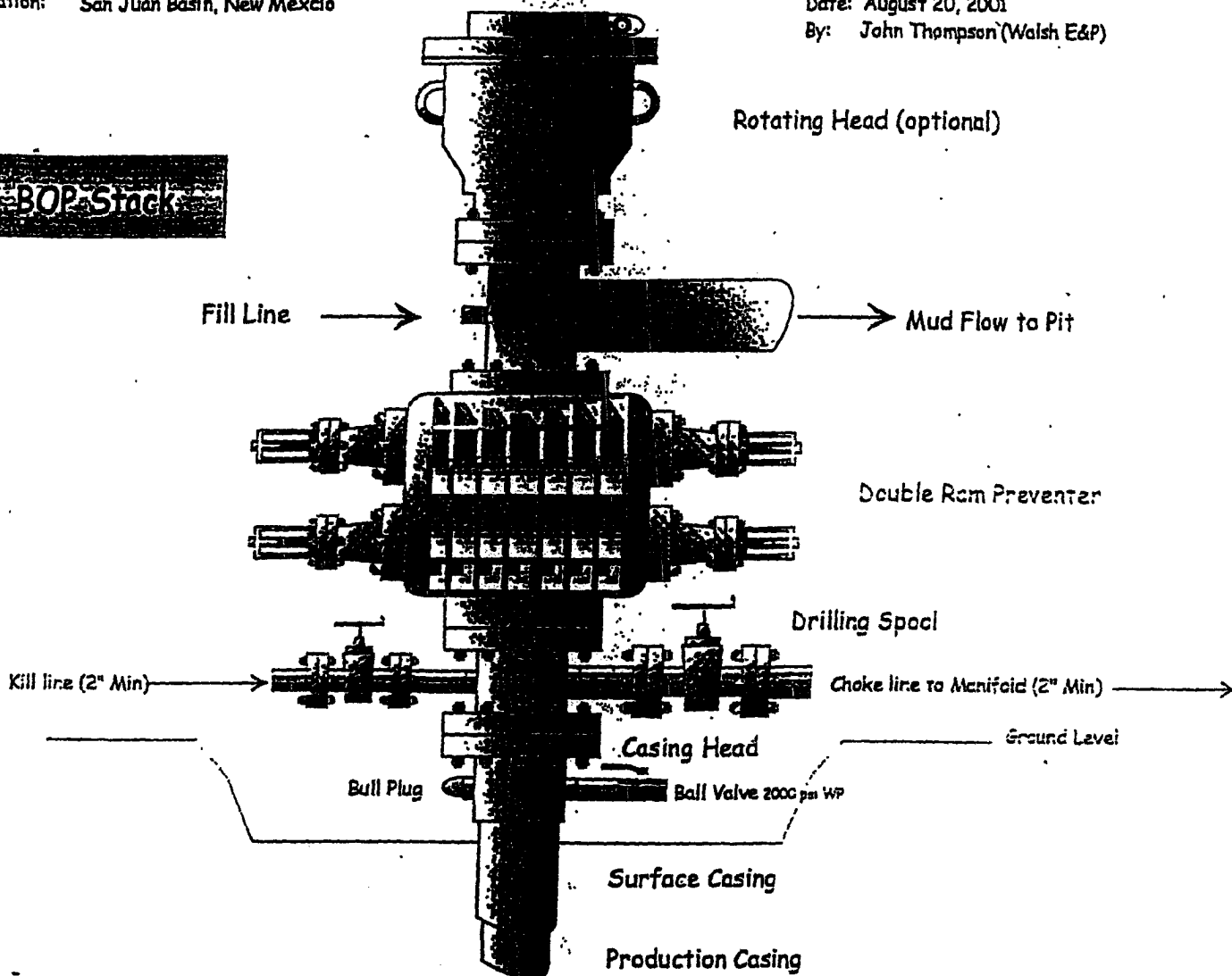
### Typical BOP setup

Location: San Juan Basin, New Mexico

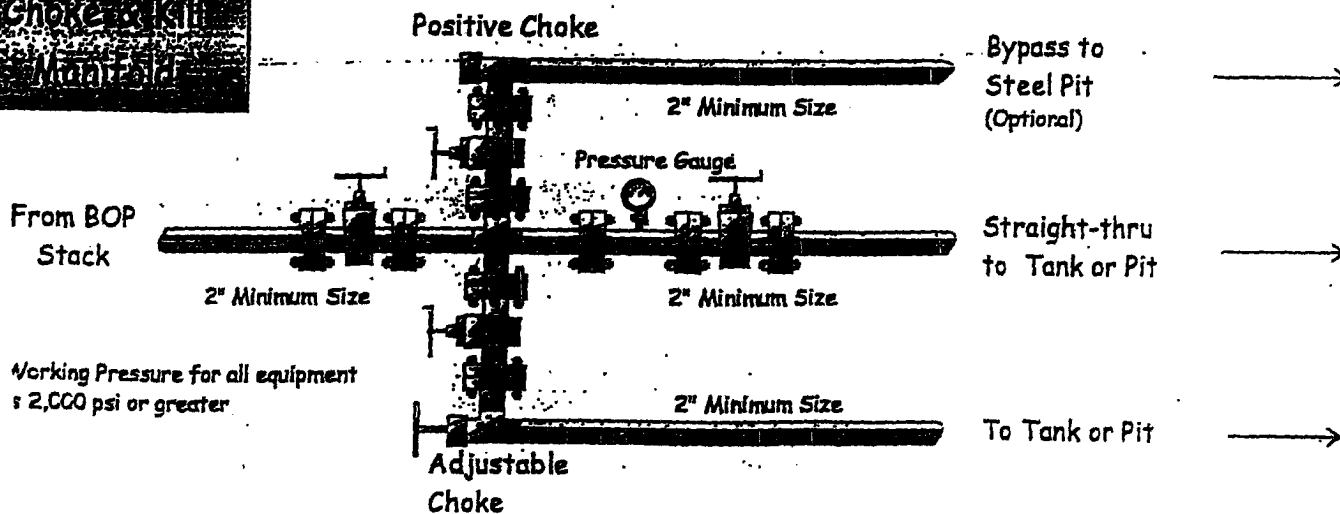
Date: August 20, 2001

By: John Thompson (Walsh E&P)

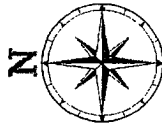
**BOP Stack**



**Choke & Kill Manifold**

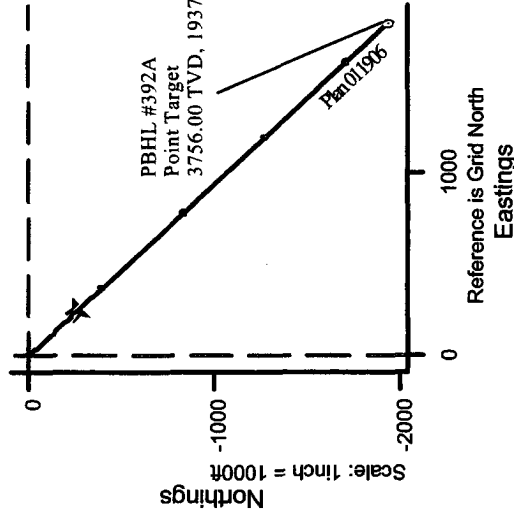


**New Mexico**  
**Rio Arriba County**  
**Sec. 15-T31N-R04W**  
**Rosa Unit #392A**  
**Plan 011906**



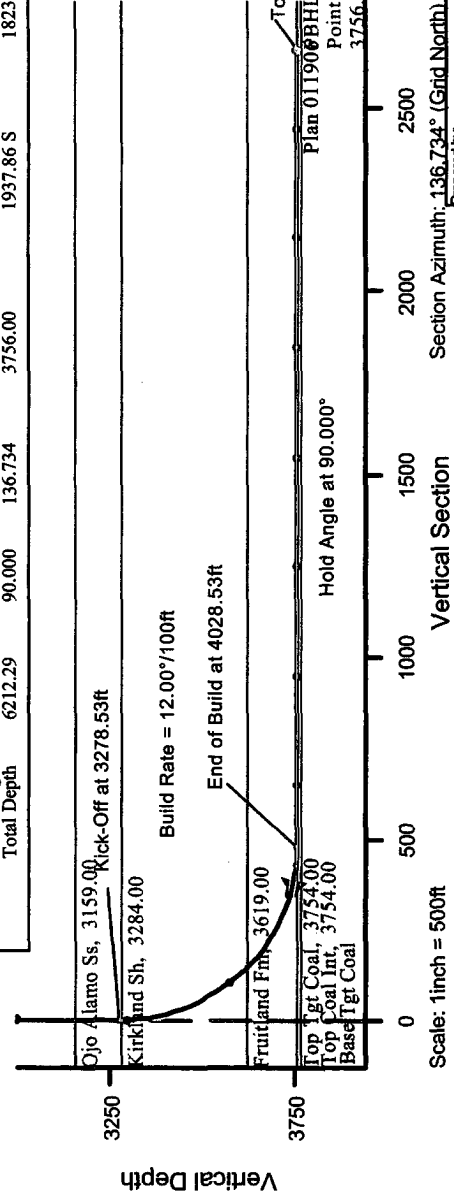
Rosa Unit #392A Surface Location	
RKB Elevation:	6894.00ft above Mean Sea Level
Ref. NE Cor Sec 15:	2655.28 S, 2468.67 W
Ref. Global Coordinates:	2147229.39 N, 673166.05 E
Ref. Geographical Coordinates:	36° 53' 58.3000" N, 107° 14' 28.0000" W

Plan 011906 Bottom Hole Location	
Ref. RKB(6882' +12' KB):	3756.00ft
Ref. Structure:	3744.00ft
Ref. Mean Sea Level:	-3138.00ft
Ref. Wellhead:	1937.86 S, 1823.95 E
Ref. NE Cor Sec 15:	4593.14 S, 644.72 W
Ref. Global Coordinates:	2145291.53 N, 674990.00 E
Ref. Geographical Coordinates:	36° 53' 39.0257" N, 107° 14' 05.6945" W



**Plan 011906 Proposal Data**

Coordinate System :		NAD27 New Mexico State Planes, Western Zone					
Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Easting	Vertical Section	Dogleg Rate
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	0.00
Kick-Off Point	3278.53	0.000	3278.53	0.00 N	0.00 E	0.00	0.00
Hold Angle	4028.53	90.000	136.734	347.68 S	327.24 E	477.46	12.00
Total Depth	6212.29	90.000	3756.00	1937.86 S	1823.95 E	2661.22	0.00



Approved:

Checked:

Date/Time: 19 January, 2008 - 14:32

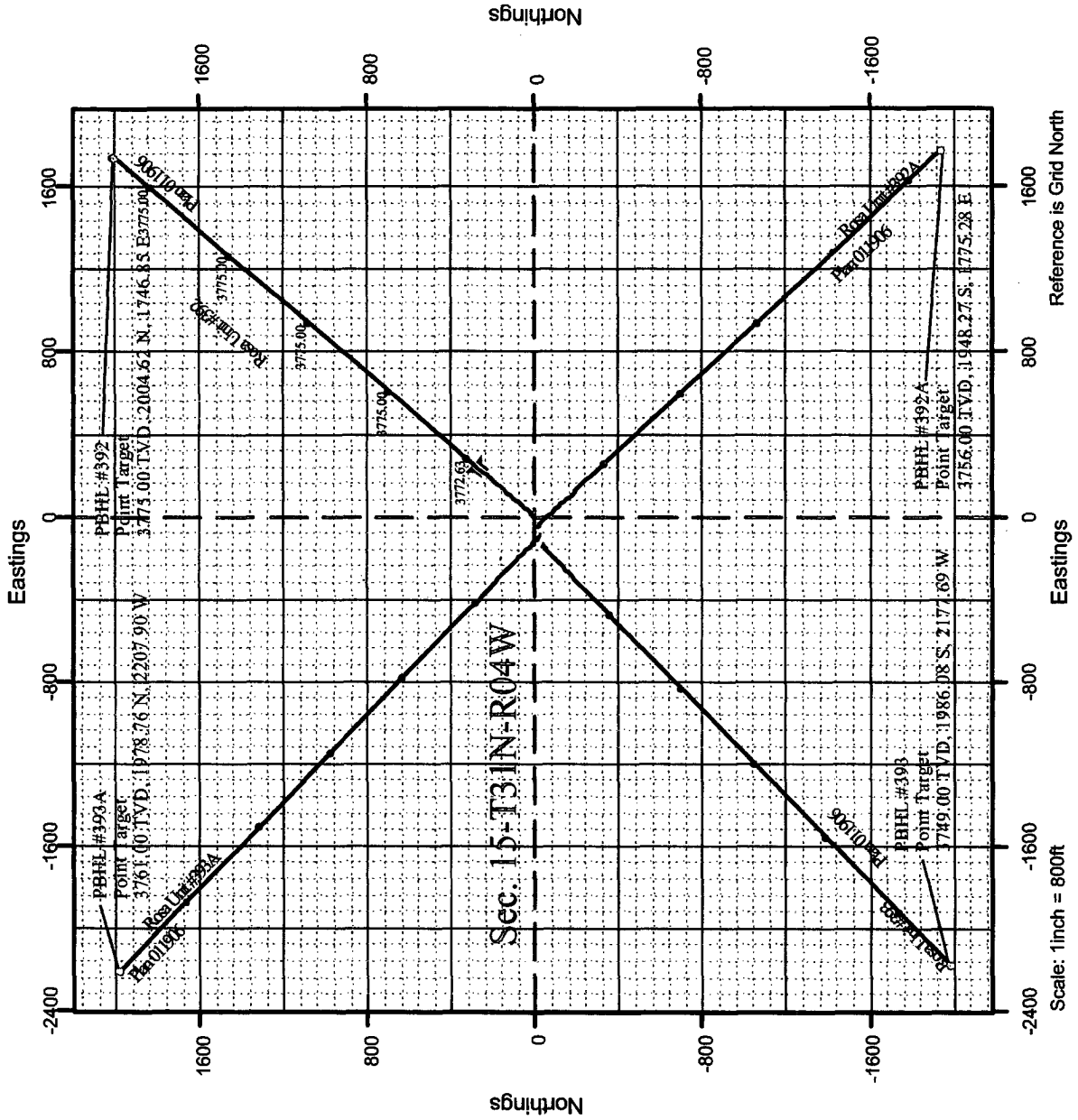
Prepared by: Dennis Cook

Section Azimuth: 136.734° (Grid North)

Scale: 1inch = 500ft



New Mexico  
Rio Arriba County  
Sec. 15-T31N-R04W  
Rosa Unit #392  
Plan 011906



## GENERAL ROSA DRILLING PLAN

### Rosa Unit boundaries:

- T31N, R4W: all except sections 32-36
- T31N, R5W: all except sections 1 & 2
- T31N, R6W: all except sections 6,7,18,20, & 27-36
- T32N, R6W: sections 32-36

FORMATION	LITHOLOGY	WATER	GAS	OIL/COND	OVER-PRES	LOST CIRC
Nacimiento	Interbedded shales, siltstones and sandstones	Possible	Possible	No	No	No
Ojo Alamo	Sandstone and conglomerates with lenses of shale	Fresh	No	No	No	No
Kirtland	Shale W/interbedded sandstones	No	Possible	No	No	No
Fruitland	Inter, SS, SiltSt, SH & Coals w/carb, SS, SiltSt, SH	Yes	Yes	No	Possible	Possible
Pictured Cliffs	Massive Sandstone w/thin interbedded shales	Possible	Yes	Possible	No	Possible
Lewis	Shale w/thin interbedded sandstones and siltstones	No	Possible	No	No	No
Cliff House	Transgressive sandstones	Possible	Yes	No	No	No
Menefee	Sandstones, carb shales and coal	Possible	Yes	No	No	No
Point Lookout	Regressive coastal barrier sandstone	Possible	Yes	Possible	No	Yes
Mancos	Marine shale and interbedded sandstone	No	Possible	Possible	No	Possible
Upr Dadota	Marine sand and shales	No	Yes	Possible	No	Possible
Lwr Dakota	Fluvial sands, shales, & coal	Possible	Yes	Possible	No	Possible

## DRILLING

### Potential Hazards:

1. There are no overpressured zones expected in this well.
2. No H2S zones will be penetrated while drilling this well.

### Mud System:

1. Surface - The surface hole will be drilled with a low-solids, non-dispersed system with starch and lost circulation material as needed. Expected mud weights will be in the 8.4 to 9.0 lb per gal range. Viscosities will be in the 30 to 60 sec/qrt range as needed to remove drill cuttings.
2. Intermediate - The intermediate hole will be drilled with clear water and Benex to TD where the well will be mudded up to log and run casing. The mud system will be low-solids, non-dispersed with mud weights in the 9 to 10 lb per gal range as needed to control the well. Viscosities will be in the 45 to 55 range as needed to support any weight material. The weight material will consist of Barite.
3. Production - The well will be drilled using air from the intermediate casing point to TD. For Fruitland Coal wells, the coal section will be drilled with air/mist.