

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## 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

P. O. Box 316 - Ignacio, CO 81137 (970) 563-3308

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

At Surface 95' FSL &amp; 1415' FEL

At proposed Prod. Zone 575' FSL &amp; 1555' FEL to 1980' FSL &amp; 1980' FEL

5. LEASE DESIGNATION AND SERIAL NO.

SF-0078762

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Rosa Unit

8. FARM OR LEASE NAME, WELL NO.

No. 382

9. API WELL NO.

30039 29364

10. FIELD AND POOL OR WILDCAT

Basin Fruitland Coal

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

Sec. 12, T31N, R5W (W 1/2 SE 1/4)

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

30 miles NE of Blanco, NM

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

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

575

16. NO. OF ACRES IN LEASE

2,560.00

17. NO. OF ACRES ASSIGNED TO THIS WELL

320.0 (E/2)

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

5,000

19. PROPOSED DEPTH

5954'

20. ROTARY OR CABLE TOOLS

Rotary

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

6,671' GR

22. APPROX. DATE WORK WILL START\*

April 1, 2005

## 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#	+/- 300'	~206 cu.ft. Type III with 2% CaCl <sub>2</sub>
8-3/4"	7"	20.0#	+/- 3742'	~1,070 cu.ft. 65/35 poz & ~139 cu.ft. Type III
6-1/4"	4-1/2"	10.5#	+/- 3200'-7164'	Open hole completion - no cement

Williams Production Company proposes to drill a well to develop the Basin 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 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 Jicarilla Ranger District of the Carson National Forest.

This APD also is serving as an application to obtain a pipeline right-of-way. No new access road will be required by this well.

A pipeline tie of approximately 8,218.80 feet will be required by this action.

The pipeline begins at the existing Rosa #371 well in the SW 1/4, Section 13, T. 31N., R. 5W.

and extends to the proposed Rosa #382 well.

HOLD C104 FOR DISSEMINATION SURVEY

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 Larry Higgins, Drig COM

DATE

11/19/2004

(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

TITLE

AFM

DATE

6-8-05

\*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.

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

NMOCD

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

PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District II  
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-039-29364</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>382</b>
*OGRID No. <b>120782</b>	*Operator Name <b>WILLIAMS PRODUCTION COMPANY</b>		*Elevation <b>6671'</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
0	12	31N	5W		95	SOUTH	1415	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
J	12	31N	5W		1980	SOUTH	1980	EAST	RIO ARriba

*Dedicated Acres <b>320.0 Acres - (E/2)</b>	*Joint or Infill	*Consolidation Code	*Drill 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

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Larry Higgins</i> Signature</p> <p><b>LARRY HIGGINS</b> Printed Name</p> <p><b>DRILLING COM</b> Title</p> <p><b>12-3-04</b> Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey: <b>JUNE 21, 2004</b></p> <p>Signature and Seal of Professional Surveyor</p> <div style="text-align: center;"> </div> <p><b>JASON C. EDWARDS</b> Certificate Number 15269</p>

Plat #2 Well Location and Dedication Plat

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.

5. Indicate Type of Lease FEDERAL  
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.  
Federal NMSF-0078762

7. Lease Name or Unit Agreement Name

Rosa Unit

8. Well Number 382

9. OGRID Number 120782

10. Pool name or Wildcat  
Basin Fruitland Coal

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 Exploration and Production Company

3. Address of Operator  
P.O. Box 316, Ignacio, CO 81137

4. Well Location

Unit Letter O: 95 feet from the south line and 1415 feet from the east line

Section 12 Township 31N Range 5W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6,671' GR

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type drilling Depth to Groundwater >100' Distance from nearest fresh water well >1,000' Distance from nearest surface water >1,000'

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

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.

Below-grade Tank to be constructed in accordance with NMOCD Interim Pit and Below-grade Tank Guidelines

Production pit to be located approximately 50 feet west of the well head.

Reserve pit to be located approximately 30 feet east of the well head.

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 Larry Higgins TITLE Drilling COM DATE 11-22-2004

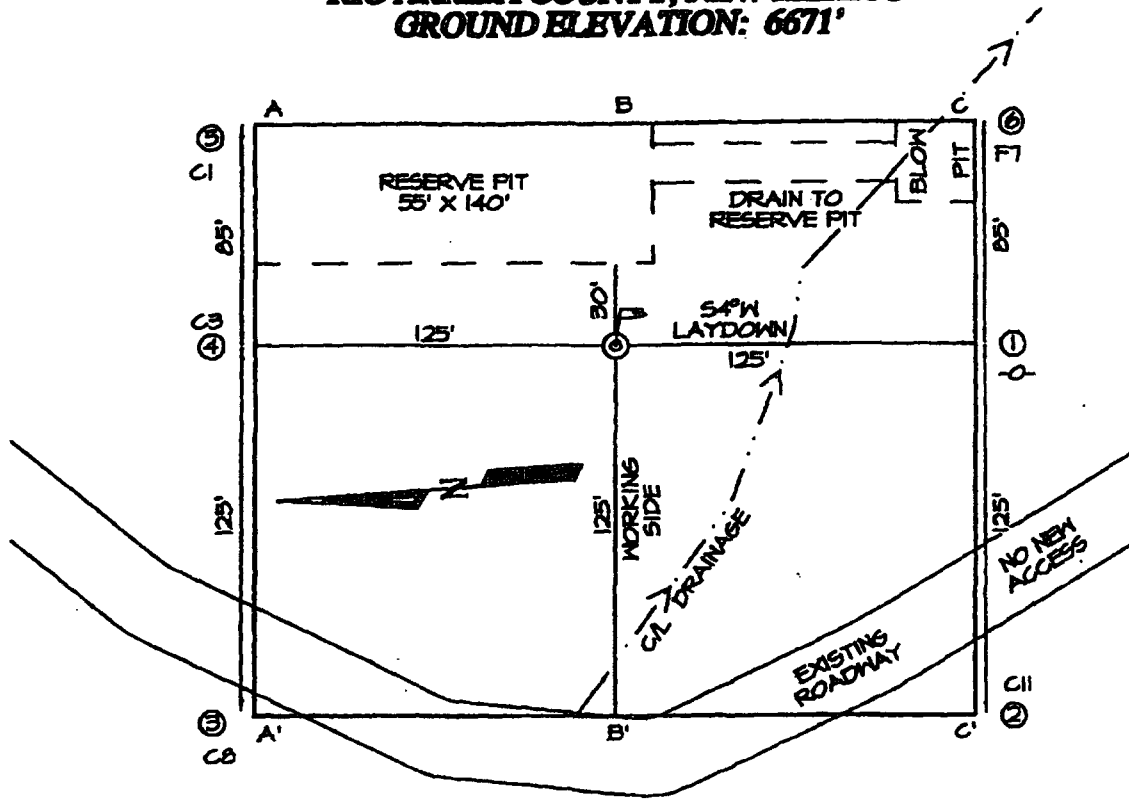
Type or print name Larry Higgins E-mail address: larry.higgins@williams.com Telephone No. (970) 563-3308

For State Use Only

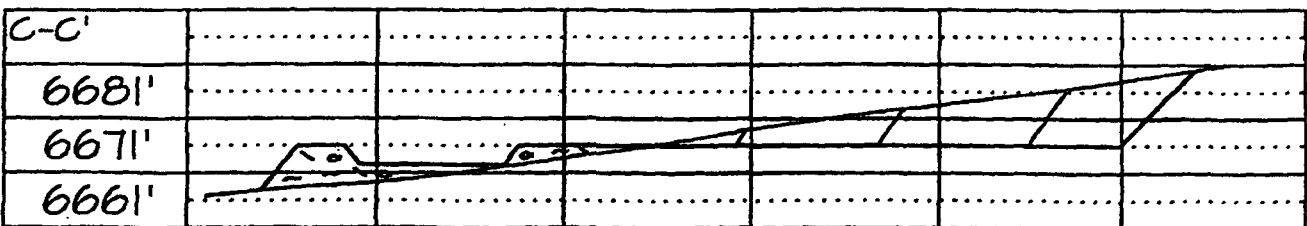
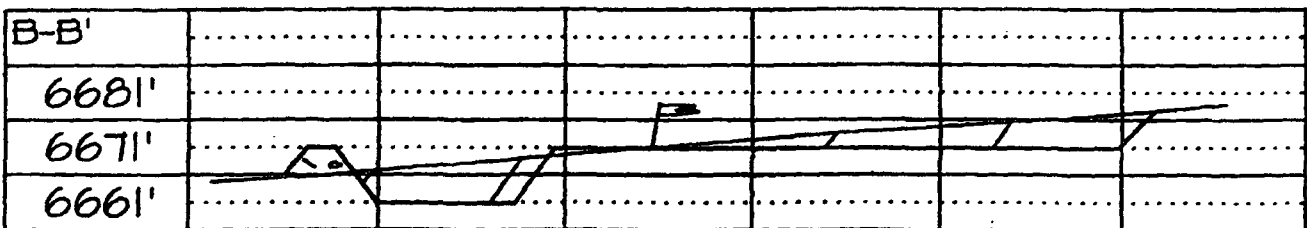
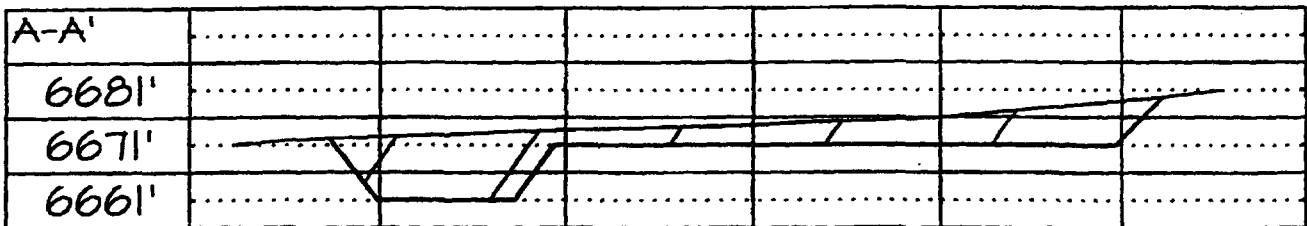
APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 33 DATE JUN 10 2005

Conditions of Approval (if any):

**WILLIAMS PRODUCTION COMPANY ROSA UNIT #382**  
**95' FSL & 1415' FEL, SECTION 12, T31N, R5W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO**  
**GROUND ELEVATION: 6671'**



**LATITUDE: 36°34'25"**  
**LONGITUDE: 107°18'31"**  
 DATUM: NAD1983



FILE NAME: ROSA98027-2

SHEET 2 OF 3

NCE SURVEYS, INC.

DRAWN BY: KER

CHECKED BY: JCE

Plat #4 Location Layout



# WILLIAMS PRODUCTION COMPANY

## Operations Plan

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

**DATE:** 10/19/2004

**WELLNAME:** Rosa #382 **FIELD:** Basin Fruitland Coal

**SURF LOCATION:** SWSE Sec. 12-T31N-R5W **SURFACE:** Forest  
San Juan, NM

**BH LOCATION:** NWSE Sec 12-31N-5W

**ELEVATION:** 6,671' GR **MINERALS:** Federal

**TOTAL DEPTH:** 5,954' **LEASE #** SF-078762

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

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

		Pilot Hole	Horizontal			Pilot Hole	Horizontal
		TVD	Section			TVD	Section
			MD				MD
San Jose		Surface	Surface		Top Coal	3,391	3,451
Nancimiento		1,586	1,586		Top Target Coal	3,486	3,742
Ojo Alomo		2,866	2,866		Bottom Target Coal	3,491	
Kirtland		2,976	2,976		Base Coal	3,501	
Fruitland		3,321	3,349		Picture Cliffs	3,506	
					TD	3,601	7,164

- NOTE: Well will be vertically drilled to 100' into Picture Cliff, logged through the PC, plug back the PC and 8-3/4" hole to 200 ft. above adjusted KOP. Dress / Kick-off cement plug and horizontally drill through the coal.

**B. LOGGING PROGRAM:** High Resolution Induction/ GR and Density/ Neutron log from surface to intermediate casing point and High Resolution Induction/ GR and Density/ Neutron log from intermediate shoe to TD. Onsite geologist will pick Density/ Neutron log intervals on both logging runs.

**C. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

**D. SURVEYING:** Run Single Shot surveys every 500 ft. while drilling the Pilot Hole to 3,469 ft. (MD).

## **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 3459' DO NOT drill deeper until Engineering is contacted.

B. **Drilling Fluid:** Horizontal section will be drilled with Calcium Chloride water.

C. **MUD LOGGING PRORAM:** Mud logger will pick intermediate casing point and 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 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"	+/- 3,742'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,200-7,164'	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. (NTL-FRA 90-1).
3. **PRODUCTION LINER:** 4-1/2" perforated liner with guide shoe on bottom.

## **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 3459' DO NOT drill deeper until Engineering is contacted.

**B. Drilling Fluid:** Horizontal section will be drilled with Calcium Chloride water.

**C. MUD LOGGING PRORAM:** Mud logger will pick intermediate casing point and 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 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"	+/- 3,742'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,200-7,164'	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. (NTL-FRA 90-1).
3. **PRODUCTION LINER:** 4-1/2" perforated liner with guide shoe on bottom.

## **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 3459' DO NOT drill deeper until Engineering is contacted.

B. **Drilling Fluid:** Horizontal section will be drilled with Calcium Chloride water.

C. **MUD LOGGING PRORAM:** Mud logger will pick intermediate casing point and 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 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"	+/- 3,742'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,200-7,164'	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. (NTL-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 155 sx (206 cu.ft.) of "Type III" with 2%  $\text{CaCl}_2$  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 - 445 sx (931 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1%  $\text{CaCl}_2$  and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139 cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1%  $\text{CaCl}_2$  (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 = 1,070 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**


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

**B. STIMULATION**

None

**C. 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

**Williams Production Company, LLC**  
**Well Control Equipment Schematic for 2M Service**

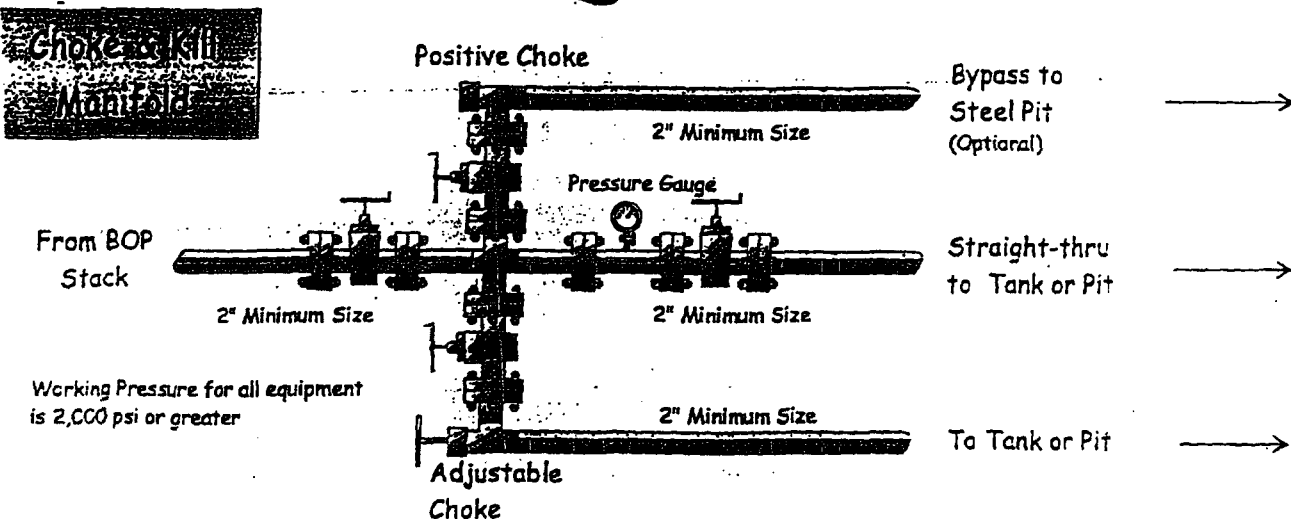
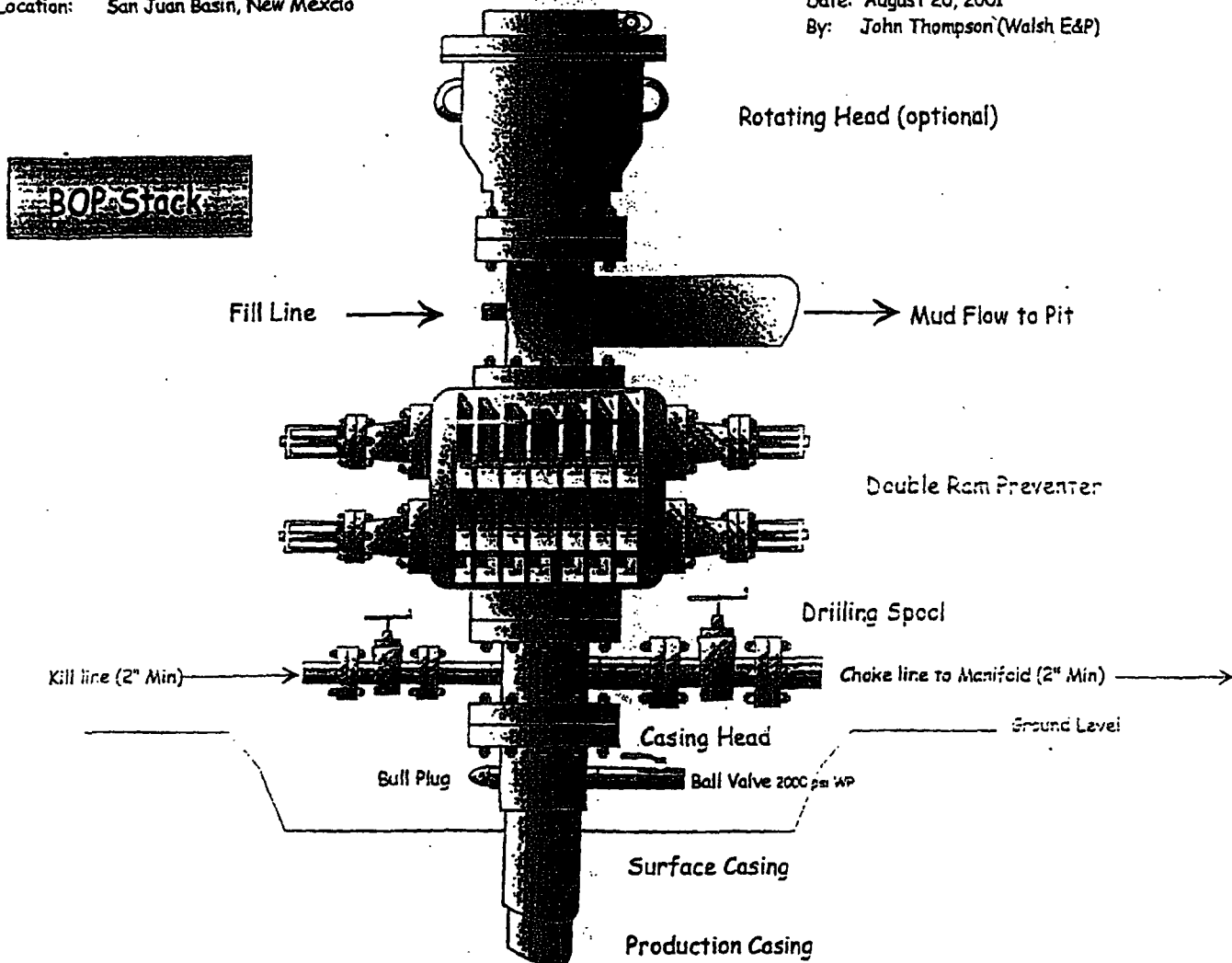
Attachment to Drilling Technical Program

**Typical BOP setup**

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)



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>30-039-29364</b>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name <b>Rosa</b>
8. Well Number <b>382</b>
9. OGRID Number <b>120782</b>
10. Pool name or Wildcat <b>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 <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other
2. Name of Operator <b>Williams Production Company, LLC</b>
3. Address of Operator <b>999 Goddard Ave., Ignacio, CO 81137</b>
4. Well Location Unit Letter <b>O</b> ; <b>95</b> feet from the <b>FSL</b> line and <b>1415</b> feet from the <b>FEL</b> line Section <b>12</b> Township <b>31N</b> Range <b>05W</b> NMPM County <b>Rio Arriba</b>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <b>6671' GR</b>

Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>
Pit type _____ Depth to Groundwater <b>&gt;100 ft</b> Distance from nearest fresh water well <b>&gt;1000 ft</b> Distance from nearest surface water <b>&gt;500 ft</b>
Pit Liner Thickness: _____ mill Below-Grade Tank: Volume <b>120</b> bbls; Construction Material <b>Steel (Plastic Liner)</b>

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
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.

Below Grade tank to be located approximately 50 feet from well head. BGT constructed, operated and closed in accordance with NMOCD guidelines and Williams procedures. (Resubmittal of earlier 11/22/04 application)

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  TITLE EH&S Specialist DATE 6/28/05

Type or print name **Michael K. Lane** E-mail address: **myke.lane@williams.com** Telephone No. **970-563-3319**

**For State Use Only**

APPROVED BY:  TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 59 DATE JUN 29 2005  
Conditions of Approval (if any): \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICE AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

5. Lease Designation and Serial No.  
SF-078762

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

SUBMIT IN TRIPLICATE

1. Type of Well  
Oil Well ☒ Gas Well ☐ Other ☐

8. Well Name and No.  
ROSA UNIT #382

2. Name of Operator  
WILLIAMS PRODUCTION COMPANY

9. API Well No.  
30-039-29364

3. Address and Telephone No.  
PO BOX 3102 MS 25-2, TULSA, OK 74101 (918) 573-6254

10. Field and Pool, or Exploratory Area  
BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
95° FSL & 1415° FEL, SW/4 SE/4 SEC 12-T31N-R05W

11. County or Parish, State  
RIO ARRIBA, NM

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
Notice of Intent	Abandonment
<input checked="" type="checkbox"/> Subsequent Report	Recompletion
Final Abandonment	Plugging Back
	Casing Repair
	Altering Casing
	Other <u>Spud</u>
	Change of Plans
	New Construction
	Non-Routine Fracturing
	Water Shut-Off
	Conversion to Injection
	Dispose Water
	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

This well was spud @ 0300 hrs 09/20/05

APD/ROW



2005 OCT 18 AM 10 06  
RECEIVED  
070 FARMINGTON, NM

14. I hereby certify that the foregoing is true and correct

Signed Tracy Ross

Title Sr. Production Analyst

Date October 13, 2005

(This space for Federal or State office use)

Approved by \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Conditions of approval, if any:

ACCEPTED FOR RECORD  
OCT 24 2005  
FARMINGTON FIELD OFFICE  
BY [Signature]

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.

NMOCD

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

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: Williams Production Co. LLC Telephone: 505/634-4219 e-mail address: myke.lane@williams.com

Address: PO Box 640, Aztec, NM 87410

Facility or well name: Rosa #382 API #: 30-039-29364 U/L or Qtr/Qtr O Sec 12 T 31N R 5W

County: Rio Arriba Latitude Longitude NAD: 1927 ☐ 1983 ☐

Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐

Pit Volume ~11,000 bbl

**Below-grade tank**

Volume: bbl Type of fluid:

Construction material:

Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

50 feet or more, but less than 100 feet

✓ 100 feet or more

(20 points)

(10 points)

✓ (0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

✓ No

(20 points)

✓ (0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

✓ 200 ft or more, but less than 1000 ft

1000 feet or more

(20 points)

✓ (10 points)

(0 points)

**Ranking Score (Total Points)**

**10**

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results.

(5) Attach soil sample results and a diagram of sample locations and excavations.

**Additional Comments:**

Former Drilling/Completion pit located as specified on APD plat. Remediation initiated on Nov 30, completed Dec 1, 2005.

Pit closed in accordance with NMOCD guidelines and approved Williams's closure procedures.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described 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 ☐.

Date: 12/2/05

Printed Name/Title Michael K. Lane, San Juan Basin EH&S Specialist Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

DEPUTY OIL & GAS INSPECTOR, PSI.

Printed Name/Title

Signature

Wendy Fart

Date

DEC 05 2005

**NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Operator <b>Williams Production Company</b>					Lease or Unit Name <b>Rosa Unit</b>				
Test Type <b>X Initial      Annual      Special</b>			Test Date <b>10/30/2005</b>		Well Number (API #) <b>#382 (API # 30-039-29364)</b>				
Completion Date <b>10/7/2005</b>		Total Depth <b>4415'</b>		Plug Back TD		Elevation <b>6671'</b>		Unit    Sec    Twp    Rng <b>O    12    31N    05W</b>	
Casing Size <b>4 1/2"</b>		Weight <b>11.6#</b>		Set At <b>4415'</b>		Perforations:		County <b>Rio Arriba</b>	
Tubing Size <b>2 3/8"</b>		Weight <b>4.7#</b>		Set At <b>3640'</b>		Perforations:		Pool <b>Basin</b>	
Type Well - Single-Bradenhead-GG or GO Multiple					Packer Set At		Formation <b>Fruitland Coal</b>		
Producing Thru <b>Tubing</b>		Reservoir Temp. oF		Mean Annual Temp. oF		Barometer Pressure - Pa		Connection	
L	H	Gq <b>0.6</b>	%CO2	%N2	%H2S	Prover <b>3/4"</b>	Meter Run	Taps	

FLOW DATA				TUBING DATA		CASING DATA			
NO	Prover Line Size	X Orifice Size	Pressure p.s.i.g	Temperature oF	Pressure p.s.i.g	Temperature oF	Pressure p.s.i.g	Temperature oF	Duration of Flow
SI	<b>2" X 3/4"</b>				<b>250</b>	<b>69</b>	<b>1200</b>		<b>0</b>
1					<b>240</b>	<b>69</b>	<b>1160</b>		<b>0.5 hr</b>
2					<b>240</b>	<b>62</b>	<b>1160</b>		<b>1.0 hr</b>
3					<b>210</b>	<b>62</b>	<b>1040</b>		<b>1.5 hrs</b>
4					<b>205</b>	<b>54</b>	<b>1040</b>		<b>2.0 hrs</b>
5					<b>205</b>	<b>54</b>	<b>990</b>		<b>3.0 hrs</b>

RATE OF FLOW CALCULATION									
NO	Coefficient (24 Hours)			hwPm	Pressure Pm	Flow Temp. Factor Fl	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	<b>9.604</b>				<b>217</b>	<b>1.0058</b>	<b>1.29</b>	<b>1.018</b>	<b>2753</b>
2									
3									
4									

NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1					A.P.I Gravity of Liquid Hydrocabrons _____	Deq.
2					Specific Gravity Separator _____	XXXXXXX
3					Specific Gravity Flowing Fluid xxxxxxxxxxxx	
4					Critical Pressure _____ p.s.i.a.	____ p.s.i.a.
5					Critical Temperature _____ R	____ R

NO	Ptl	Pw	Pw2	Pc2-Pw2	(1) $\frac{Pc2}{Pc2-Pw2} =$	(2) $\frac{Pc2^n}{Pc2-Pw2} =$
1		<b>1002</b>	<b>1004004</b>	<b>464940</b>	<b>3.159427</b>	<b>2.3697703</b>
2						
3						
4						

Absolute Open Flow <b>6523</b>		Mcf @ 15.025	Angle of Slope _____	Slope, n <b>0.75</b>
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Remarks:			
Approved By Commission:	Conducted By: <b>Mark Lepich</b>	Calculated By: <b>Tracy Ross</b>	Checked By:



**Williams Production Company**  
**New Mexico**  
**Rio Arriba County**  
**Sec. 12-T31N-R05W**  
**Rosa Unit #382~~4~~ - MWD survey**

## **Halliburton Sperry-Drilling Survey Report**

**6 October, 2005**

Surface Coordinates: 2149813.97 N, 653414.00 E (36° 54' 25.0000" N, 107° 18' 31.0000" W)  
Grid Coordinate System: NAD27 New Mexico State Planes, Western Zone

Surface Coordinates relative to Global Coordinates: 644822.85 N, 355733.24 E (Grid)  
Surface Coordinates relative to SE Cor of Sec 12: 95.00 N, 1415.00 W (True)  
Kelly Bushing Elevation: 6686.00ft above Mean Sea Level  
Kelly Bushing Elevation: 68.00ft below Structure

Survey Ref: svy9360

Surface 95/S 1415/E  
B.H.L. 1 573/S 1597/E  
B.H.L. 2 1093/S 1843/E  
MD 4419  
TVD 3493

**HALLIBURTON**  
**Sperry Drilling Services**

30-039-29384

# HALLIBURTON

Sperry Drilling Services

Williams Production Company  
New Mexico  
Rio Arriba County

## Survey Report for Sec. 12-T31N-R05W - Rosa Unit #382H - MWD survey

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S (ft)	E-W (ft)	Dogleg Severit (°/100ft)	Lease Calls FNL-FSL (ft)	FEL-FWL (ft)	Global Coordinates Grid Y (ft)	Grid X (ft)
0.00	0.000	0.000	0.00	0.00	0.00 N	0.00 E		95.00 FSL	1415.00 FEL	2149813.97 N	653414.00 E
506.00	0.980	78.060	505.98	-0.62	0.90 N	4.23 E	0.19	95.89 FSL	1410.77 FEL	2149814.89 N	653418.23 E
1015.00	1.160	181.620	1014.92	-6.02	3.36 S	8.35 E	0.33	91.64 FSL	1405.65 FEL	2149810.67 N	653422.37 E
1551.00	0.620	156.700	1550.86	-13.96	11.44 S	9.34 E	0.12	83.56 FSL	1405.66 FEL	2149802.58 N	653423.41 E
2242.00	0.700	234.400	2241.82	-18.82	17.33 S	7.39 E	0.12	77.67 FSL	1407.61 FEL	2149796.68 N	653421.49 E
2935.00	0.620	235.100	2934.78	-20.90	21.94 S	0.87 E	0.01	73.06 FSL	1414.13 FEL	2149792.04 N	653414.99 E
2966.00	0.640	217.920	2965.78	-21.03	22.17 S	0.63 E	0.61	72.82 FSL	1414.38 FEL	2149791.80 N	653414.75 E
2997.00	0.500	228.240	2996.77	-21.18	22.40 S	0.42 E	0.56	72.60 FSL	1414.58 FEL	2149791.58 N	653414.55 E
3029.00	0.500	244.180	3028.77	-21.24	22.55 S	0.19 E	0.43	72.44 FSL	1414.81 FEL	2149791.42 N	653414.32 E
3061.00	0.840	325.670	3060.77	-21.03	22.42 S	0.07 W	2.85	72.58 FSL	1415.07 FEL	2149791.55 N	653414.06 E
3091.00	2.820	337.910	3090.75	-20.08	21.56 S	0.47 W	6.69	73.44 FSL	1415.47 FEL	2149792.41 N	653413.65 E
3123.00	5.590	343.000	3122.67	-17.73	19.34 S	1.22 W	8.73	75.66 FSL	1416.22 FEL	2149794.63 N	653412.89 E
3155.00	9.300	343.620	3154.39	-13.59	15.36 S	2.41 W	11.60	79.64 FSL	1417.41 FEL	2149798.60 N	653411.68 E
3185.00	13.790	342.110	3183.78	-7.60	9.63 S	4.19 W	15.00	85.37 FSL	1419.19 FEL	2149804.32 N	653409.87 E
3216.00	18.690	340.370	3213.53	1.06	1.43 S	7.00 W	15.88	93.57 FSL	1422.00 FEL	2149812.50 N	653407.02 E
3249.00	23.860	339.170	3244.27	13.03	9.79 N	11.15 W	15.72	104.79 FSL	1426.15 FEL	2149823.70 N	653402.80 E
3280.00	29.270	338.810	3271.99	26.89	22.73 N	16.12 W	17.46	117.73 FSL	1431.12 FEL	2149836.61 N	653397.76 E
3312.00	34.490	339.990	3299.15	43.78	38.55 N	22.05 W	16.43	133.55 FSL	1437.05 FEL	2149852.40 N	653391.74 E
3343.00	37.840	341.680	3324.18	62.07	55.83 N	28.04 W	11.27	150.83 FSL	1443.04 FEL	2149869.64 N	653385.65 E
3374.00	41.330	343.370	3348.06	81.80	74.67 N	33.96 W	11.78	169.67 FSL	1448.96 FEL	2149888.45 N	653379.63 E
3405.00	45.380	343.520	3370.60	103.03	95.06 N	40.02 W	13.07	190.06 FSL	1455.02 FEL	2149908.81 N	653373.45 E
3436.00	49.570	342.860	3391.55	125.84	116.93 N	46.63 W	13.61	211.93 FSL	1461.63 FEL	2149930.64 N	653366.72 E
3468.00	54.100	342.500	3411.32	150.96	140.94 N	54.12 W	14.18	235.94 FSL	1469.12 FEL	2149954.61 N	653359.10 E
3500.00	58.610	342.530	3429.04	177.56	166.34 N	62.12 W	14.09	261.34 FSL	1477.12 FEL	2149979.97 N	653350.96 E
3531.00	64.340	342.680	3443.84	204.76	192.32 N	70.26 W	18.49	287.32 FSL	1485.26 FEL	2150005.91 N	653342.68 E



Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates		Dogleg Severit (°/100ft)	Lease Calls		Global Coordinates	
					N-S (ft)	E-W (ft)		FNL-FSL (ft)	FEL-FWL (ft)	Grid Y (ft)	Grid X (ft)
3562.00	70.220	342.680	3455.81	233.30	219.61 N	78.77 W	18.97	314.61 FSL	1493.77 FEL	2150033.14 N	653334.02 E
3593.00	76.640	341.980	3464.64	262.97	247.91 N	87.78 W	20.82	342.91 FSL	1502.78 FEL	2150061.39 N	653324.85 E
3662.00	86.280	337.800	3474.89	331.11	311.88 N	111.24 W	15.17	406.88 FSL	1526.24 FEL	2150125.23 N	653301.04 E
3692.00	86.450	337.570	3476.80	361.03	339.58 N	122.60 W	0.99	434.58 FSL	1537.60 FEL	2150152.97 N	653289.52 E
3723.00	86.550	337.310	3478.69	391.94	368.15 N	134.47 W	0.90	463.15 FSL	1549.47 FEL	2150181.37 N	653277.49 E
3752.00	86.480	336.700	3480.46	420.85	394.80 N	145.78 W	2.11	489.80 FSL	1560.78 FEL	2150207.96 N	653266.04 E
3783.00	86.480	336.530	3482.36	451.74	423.20 N	158.06 W	0.55	518.20 FSL	1573.06 FEL	2150236.29 N	653253.60 E
3813.00	85.780	336.180	3484.39	481.62	450.62 N	170.06 W	2.61	545.62 FSL	1585.06 FEL	2150263.64 N	653241.44 E
3843.00	86.840	336.180	3486.32	511.50	478.01 N	182.15 W	3.53	573.01 FSL	1597.15 FEL	2150290.96 N	653229.20 E
3874.00	89.380	336.880	3487.34	542.42	506.42 N	194.49 W	8.50	601.42 FSL	1609.49 FEL	2150319.31 N	653216.71 E
3905.00	90.700	337.230	3487.32	573.39	534.97 N	206.57 W	4.41	629.97 FSL	1621.57 FEL	2150347.79 N	653204.47 E
3937.00	91.670	337.580	3486.65	605.35	564.51 N	218.86 W	3.22	659.51 FSL	1633.86 FEL	2150377.26 N	653192.01 E
3968.00	91.490	337.930	3485.80	636.32	593.19 N	230.59 W	1.27	688.19 FSL	1645.59 FEL	2150405.88 N	653180.12 E
3999.00	90.880	336.350	3485.16	667.27	621.75 N	242.63 W	5.46	716.75 FSL	1657.63 FEL	2150434.37 N	653167.93 E
4030.00	88.420	334.770	3485.35	698.18	649.97 N	255.45 W	9.43	744.37 FSL	1670.45 FEL	2150462.52 N	653154.95 E
4061.00	91.490	334.420	3485.37	729.05	677.97 N	268.75 W	9.97	772.97 FSL	1683.75 FEL	2150490.44 N	653141.50 E
4092.00	92.110	332.490	3484.40	759.84	705.69 N	282.59 W	6.54	800.89 FSL	1697.60 FEL	2150518.08 N	653127.50 E
4123.00	91.410	331.960	3483.45	790.55	733.10 N	297.03 W	2.83	828.10 FSL	1712.03 FEL	2150545.42 N	653112.91 E
4154.00	88.330	330.550	3483.52	821.20	760.28 N	311.94 W	10.93	855.28 FSL	1726.94 FEL	2150572.51 N	653097.85 E
4185.00	86.130	329.500	3485.02	851.70	787.10 N	327.40 W	7.86	882.10 FSL	1742.40 FEL	2150599.25 N	653082.24 E
4217.00	86.040	330.900	3487.20	883.18	814.80 N	343.27 W	4.37	909.80 FSL	1758.27 FEL	2150626.86 N	653066.22 E
4248.00	84.810	332.310	3489.67	913.76	841.99 N	357.96 W	6.02	936.99 FSL	1772.96 FEL	2150653.96 N	653051.37 E
4279.00	85.960	333.890	3492.17	944.44	869.54 N	371.94 W	6.29	964.54 FSL	1786.94 FEL	2150681.44 N	653037.24 E
4310.00	88.510	335.470	3493.66	975.27	897.53 N	385.18 W	9.67	992.53 FSL	1800.18 FEL	2150709.35 N	653023.85 E
<b>last MWD survey</b>											
4341.00	90.880	337.410	3493.83	1006.21	925.94 N	397.57 W	9.88	1020.94 FSL	1812.57 FEL	2150737.70 N	653011.30 E
<b>Projection to TD</b>											
4419.00	90.880	337.410	3492.63	1084.13	997.95 N	427.52 W	0.00	1092.95 FSL	1842.52 FEL	2150809.54 N	652980.95 E

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North.  
Vertical depths are relative to RKB (6671 ± 15 KB). Northings and Eastings are relative to Wellhead.

Based upon Minimum Curvature type calculations, at a Measured Depth of 4419.00ft.,  
The Bottom Hole Displacement is 1085.67ft., in the Direction of 336.807° (True).

**Survey Report for Sec. 12-T31N-R05W - Rosa Unit #382H - MWD survey**

**Comments**

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
4341.00	3493.83	925.94 N	397.57 W	last MWD survey Projection to TD
4419.00	3492.63	997.95 N	427.52 W	

# HALLIBURTON

Sperry Drilling Services

Williams Production Company  
New Mexico  
Rio Arriba County

## North Reference Sheet for Sec. 12-T31N-R05W - Rosa Unit #382H

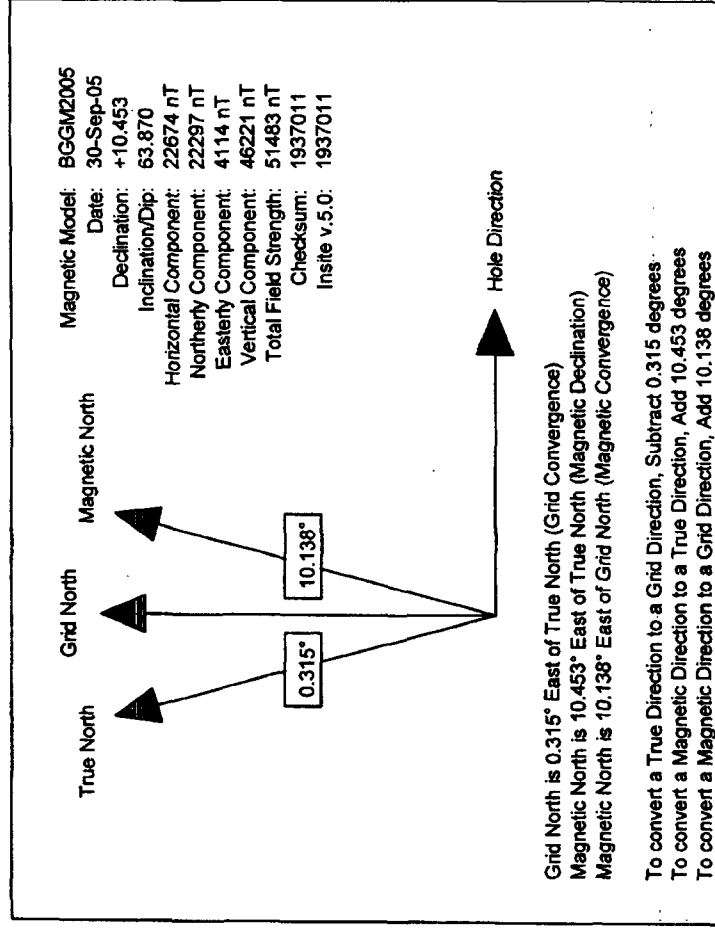
Coordinate System is NAD27 New Mexico State Planes, Western Zone, US Foot  
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866  
Equatorial Radius: 6378206.400m.  
Polar Radius: 6356583.800m.  
Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection  
Central Meridian is -107.833°  
Longitude Origin: 0.000°  
Latitude Origin: 31.000°  
False Easting: 152400.00m  
False Northing: 0.00m  
Scale Reduction: 0.99991667

Grid Coordinates of Well: 2149813.97 N, 653414.00 E  
Geographical Coordinates of Well: 36° 54' 25.0000" N, 107° 18' 31.0000" W  
Surface Elevation of Well: 6686.00ft  
Grid Convergence at Surface is +0.315°  
Magnetic Declination at Surface is +10.453° (30 September, 2005)



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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 & Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-104  
Reformatted July 20, 2001

Submit to Appropriate District Office  
5 Copies

☐ AMENDED REPORT

**I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**

<sup>1</sup> Operator name and Address WILLIAMS PRODUCTION COMPANY P O BOX 3102, MS 25-1 TULSA, OK 74101		<sup>2</sup> OGRID Number 120782
		<sup>3</sup> Reason for Filing Code/ Effective Date NW
<sup>4</sup> API Number 30 - 039-29364	<sup>5</sup> Pool Name BASIN FRUITLAND COAL	<sup>6</sup> Pool Code 71629
<sup>7</sup> Property Code 17033	<sup>8</sup> Property Name ROSA UNIT	<sup>9</sup> Well Number 382

**II. <sup>10</sup> Surface Location**

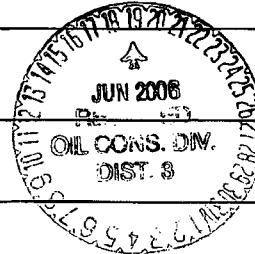
UL or lot no. O	Section 12	Township 31N	Range 5W	Lot Idn	Feet from the 95	North/South Line SOUTH	Feet from the 1415	East/West line EAST	County RIO ARRIBA
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**<sup>11</sup> Bottom Hole Location**

UL or lot no. O	Section 12	Township 31N	Range 5W	Lot Idn	Feet from the 1093	North/South line SOUTH	Feet from the 1843	East/West line EAST	County RIO ARRIBA
<sup>12</sup> Lse Code	<sup>13</sup> Producing Method Code	<sup>14</sup> Gas Connection Date	<sup>15</sup> C-129 Permit Number		<sup>16</sup> C-129 Effective Date		<sup>17</sup> C-129 Expiration Date		

**III. Oil and Gas Transporters**

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
009018	GIANT REFINING P O BOX 12999 SCOTTSDALE, AZ 85267		O	
025244	WILLIAMS FIELD SERVICES P O BOX 645 TULSA, OK 74102		G	



**IV. Produced Water**

<sup>23</sup> POD	<sup>24</sup> POD ULSTR Location and Description
-------------------	--

**V. Well Completion Data**

<sup>25</sup> Spud Date 09/20/05	<sup>26</sup> Ready Date 10/07/05	<sup>27</sup> TD 4415'	<sup>28</sup> PBSD	<sup>29</sup> Perforations 3645-4411	<sup>30</sup> DHC, MC
<sup>31</sup> Hole Size	<sup>32</sup> Casing & Tubing Size	<sup>33</sup> Depth Set	<sup>34</sup> Sacks Cement		
12-1/4"	9-5/8", 36#, K-55	324'	255		
8-3/4"	7", 23#, K-55	3645'	600		
6-1/4"	4-1/2", 17#, N-80	4415'	0		
	2-3/8", 6.5#, J-55	3640'			

**VI. Well Test Data**

<sup>35</sup> Date New Oil	<sup>36</sup> Gas Delivery Date	<sup>37</sup> Test Date 10/30/05	<sup>38</sup> Test Length	<sup>39</sup> Tbg. Pressure 205	<sup>40</sup> Csg. Pressure 990
<sup>41</sup> Choke Size 3/4"	<sup>42</sup> Oil	<sup>43</sup> Water	<sup>44</sup> Gas 344	<sup>45</sup> AOF	<sup>46</sup> Test Method

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		7-19-06 OIL CONSERVATION DIVISION	
Signature: Tracy Ross		Approved by: <i>Chad Ross</i> 7-18	
Printed name: TRACY ROSS		Title: SUPERVISOR DISTRICT # 3	
Title: SR. PRODUCTION ANALYST		Approval Date: JUN 19 2006	
Date: 06/15/06	Phone: 918-573-6254		

Submit 3 Copies  
To Appropriate  
District Office  
**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

**OIL CONSERVATION DIVISION**

2040 South Pacheco  
Santa Fe, NM 87505

**DISTRICT II**  
811 South First, Artesia NM 88210

**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL API NO. 30-039-29364
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: ROSA UNIT
8. Well No. 382
9. Pool name or Wildcat BASIN FRUITLAND COAL
10. Elevation (Show whether DF, RK, B, or GR) 6328' GR

**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 <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other
2. Name of Operator WILLIAMS PRODUCTION COMPANY
3. Address of Operator P O BOX 3102, MS 25-2, TULSA, OK 74101
4. Well Location (Surface) Unit letter O : 1093 feet from the SOUTH line & 1843 feet from the EAST line
10. Elevation (Show whether DF, RK, B, or GR) 6328' GR

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

OTHER:

**SUBSEQUENT REPORT OF:**

REMEDIAL WORK

ALTERING CASING

COMMENCE DRILLING OPNS.

PLUG AND  
ABANDONMENT

CASING TEST AND CEMENT JOB

OTHER: Depths for performances

12. 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.

4 1/2" liner information: liner was landed @ 4415' as follows: liner hanger, 1 jt 4 1/2", 10.5# J-55 non-perforated csg, 33 jts 4 1/2", 11.5#, J-55 pre-perfed csg & shoe on bottom. Liner perms are from 3056' to 4411'. Liner was not cemented. Please note that the formation tops noted on the attached wellbore diagram are measured depths. The setting depths for the csg are true vertical depths.

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

SIGNATURE Tracy Ross TITLE: SR. Production Analyst DATE: July 12, 2006

Type or print name TRACY ROSS

Telephone No: (918) 573-6254

(This space for State use)

APPROVED BY H. Villanueva

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3

DATE JUL 14 2006

Conditions of approval, if any:

# **ROSA UNIT #382** **BASIN FRUITLAND COAL**

Spud date: 9/20/05  
Completed: 10/07/05  
1st Delivered: 11/02/05

**Location:**  
SHL: 95' FSL and 1415' FEL  
SW/4 SE/4 Sec 12(O), T31N, R05W

**BHL:** 1093' FSL and 1843' FEL  
SW/4 SE/4 Sec 12(O), T31N, R05W  
Rio Arriba, New Mexico

**Elevation:** 6671' GR  
**API #** 30-039-29364

Top	Depth
Ojo Alamo	2867'
Kirtland	2976'
Fruitland	3320'
Base of Coal	3497'

Landed 11 jts 9-5/8", 36#, K-55, STC csg @ 324'.  
Cemented with 255 sx cmt

TIW liner hanger.  
TOL @ 3001'

Landed 112 jts of 2-3/8", 4.7#, J-55, EUE, 8rd tbq as follows:  
shoe on bottom, 1 jt 2-3/8" tbq, SN @ 3208', 111 jts 2-3/8"  
tbq. Landed @ 3640'

Landed 94 jts 7", 23#, K-55, LT&C  
csg @ 3645' TMD (3472' TVD).  
Float @ 3605'. Cemented with 600 sx  
cmt.

TD @ 4415' TMD  
@ 3492' TVD

Landed 4-1/2" liner @ 4415' as follows: liner hanger, 1 jt 4  
1/2", 10.5#, J-55 non-perfed csg, 33 jts, 4 1/2", 11.5#, J-55  
perfed csg & shoe on bottom. Liner perfs are from 3056' to  
4411'. Did not cement

Hole Size	Casing	Cement	Volume	Top of CMT
12-1/4"	9-5/8", 36#	255 sx	354 cu ft.	surface
8-3/4"	7", 23#	600 sx	1144 cu ft.	surface
6-1/4"	4-1/2", 11.6#	Did Not Cmt	N/A	N/A

UNITED STATES  
DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICE AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

5. Lease Designation and Serial No.  
SF-078762

6. If Indian, Allottee or Tribe Name

If Unit or CA, Agreement Designation

SUBMIT IN TRIPLICATE

1. Type of Well  
Oil Well ☒ Gas Well ☐ Other ☐

Well Name and No.  
ROSA UNIT #382

2. Name of Operator  
WILLIAMS PRODUCTION COMPANY

API Well No.  
30-039-29364

3. Address and Telephone No.  
PO BOX 3102 MS 25-2, TULSA, OK 74101 (918) 573-6254

10. Field and Pool, or Exploratory Area  
BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
95' FSL & 1415' FEL, SW/4 SE/4 SEC 12-T31N-R05W

11. County or Parish, State  
RIO ARRIBA, NM

CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
Notice of Intent	Abandonment
X Subsequent Report	Recompletion
Final Abandonment	Plugging Back
	Casing Repair
	Altering Casing
	Other <u>Completion</u>
	Change of Plans
	New Construction
	Non-Routine Fracturing
	Water Shut-Off
	Conversion to Injection
	Dispose Water
	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

09-19-2005 MIRU

09-20-2005 MIRU, drill rat & mouse hole, spud well @ 0300 hrs, 09/20/05.

09-21-2005 Drilling 12 1/4" surface hole from 40' to 330', circulate & condition hole, TOO. RU csg crew. RIH & land 7 jts, 9%", 36#, K-55, ST&C csg @ 324'. Cmt surface csg as follows: 255 sxs (354 cu.ft.) Type III cmt w/ 2% CaCl2 + 1/4#/sx Cello Flake. Plug down @ 2130 hrs with 15 bbls cmt to surface. WOC

09-22-2005 NU BOP, pressure test, TIH w/ bit #2, drilling plug & cmt from 280' to 340'. Drilling 8 3/4" hole from 340' to 1393'.

09-23-2005 Drilling 8 3/4" hole from 1393' to 2745'.

09-24-2005 Drilling 8 3/4" hole from 2745' to 3606'.

Continued on Back

14. I hereby certify that the foregoing is true and correct

Signed

Tracy Ross

Title Sr. Production Analyst

Date June 15, 2006

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

ACCEPTED FOR RECORD

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.

JUN 19 2006

FARMINGTON FIELD OFFICE

NMOC

09-25-2005 Circulate & condition, TOOH. TIH, tag @ 3570' (36' of fill). TIH to knock out bridge @ 955', CO to bottom, tag fill @ 3575'. Raise viscosity to 80 sec/qt. Wash from 3575' to 3606'. TIH to knock out bridges & condition hole.

09-26-2005 Circulate & condition hole. Viscosity - 100 sec/qt, water loss - 7. TIH to knock out bridges to 2082', TOOH, TIH to knock out bridges.

09-27-2005 TIH to knock out bridges, TOOH. TIH w/ 15 jts 3 1/2" DP, 97 jts 4 1/2" DP. Tag fill @ 3550', circulate, RU cementers. Pump cmt as follows: 20 bbl water spacer, 69 bbl (387 cu/ft, 300 sx) Type III w/ .1% CD-32. + 1/4#sx Cello Flake mixed @ 15 ppg. Displace w/ 5 bbl water & 27 bbls mud. Cmt plug from 2600' to 3520', TOOH 25 stds, WOC, slow circulate @ 3.5 bbl/ min.

09-28-2005 WOC, tag cmt @ 0600 hrs @ 2652', TOOH, LD 3 1/2" DP. MU bit & TIH w/ DC's & DP to 2600', circulate. Drilling cmt from 2652' to 3004'. Circulate & condition hole, TOOH, PU & TIH w/ directional drilling assembly.

09-29-2005 TIH w/ directional drilling assembly. Circulate & wash 23' to 3004'. Time drill fr/ 3004' to 3027'.

09-30-2005 Drilling 8 3/4" hole from 3027' to 3210'.

10-01-2005 Drilling 8 3/4" hole from 3210' to 3545'.

10-02-2005 Drilling 8 3/4" hole from 3545' to 3645', circulate, short trip to csg shoe, circulate, TOOH, LD DP & BHA.

10-03-2005 RU csg crew, run guide shoe, 94 jts 7", 23#, K-55, LT&C csg w/ insert float in top of first joint. Csg total length - 3660', set @ 3645' MD, 3472' TVD. Circulate csg @ 3000', no centralizers. Circulate casing @ 3645'. RU cementers, cmt 7" csg w/ 10 bbl H2O flush, 167 bbl (937 cu.ft, 450 sx) Premium LT HS, w/ 8% gel, 1% CaCl, 1/4#sx Cello Flake - mixed @ 12.1 ppg, 37 bbl (207 cu.ft, 150 sxs) Type III w/ 1% CaCl, 1/4#sx Cello Flake, mixed @ 14.5 ppg. Displaced w/ 142 bbl H2O. Bump plug w/ 1560 psi, float held, RD cementers. Circulated 65 bbls cmt to surface. Plug down @ 1720 hrs. ND BOP, set csg slips w/ 70,000, cut off csg. NU BOP & choke manifold. Pressure test pipe rams, choke manifold & csg - 250 psi - 15 min, 1500 psi - 30 min. OK. PU 6 1/2" bit, directional drlg assy & ABI. Test same (ok). PU 3 1/2" DP & TIH w/ dir drlg assy & DP.

10-04-2005 PU 3 1/2" DP & TIH w/ dir drlg assy & DP. Drill cmt & equipment, horizontally drilling 6 1/4" hole rotate & sliding from 3645' to 3820'. Target coal came in @ 3812' TMD, 3484' TVD. Horizontally drlg 6 1/4" hole, rotate & slide from 3820' to 4139'.

10-06-2005 Horizontally drlg 6 1/4" hole, rotate & slide from 4139' to 4419'. Circulate drilling gas out of hole @ 7" shoe, 3600' TMD. TOOH & LD directional tools. Sperry drlg tools out of hole @ 4419'. Circulate & work tight hole, pressuring up & dragging, TOOH to 7" csg shoe. Circulate drlg gas out of hole @ 7" shoe, 3600' TMD. TOOH & LD directional tools, Sperry drlg tools out of hole @ 1830 hrs on 10/5/05. LD 16 - 5" DC's out of derrick. TIH w/ re-run bit on 3 1/2" DP to 4150', no drag, no fill. Pull up to 3600', circulate trip gas out of hole. TOOH to PU 4 1/2" liner. RU csg crew.

10-07-2005 Run 33 jts 4 1/2" liner & liner hanger. TIH w/ 4 1/2" liner on 3 1/2" DP. Attempt to hang liner, no good, set liner on bottom, rotate off liner & pack off liner top. Liner top @ 3001' TMD. Overlap = 645'. 7" csg shoe @ 3645' TMD. 1 1/2" liner shoe @ 4415' TMD, 3492' TVD. LDDP & setting tool, PU & break 3 1/2" kelly. Set retrievable bridge plug @ 600' & load hole. ND BOP & install tbq head, XO spool 11" - 3000# x 7" - 3000# & NU BOP. Retrieve bridge plug, circulate gas bubble out of hole, RU csg crew, change rams to 2 3/4", stab flow line on BOP. Run 112 jts 2 3/4" tbq, landed @ 3640', SN 1 jt above mule shoe @ 3608' TMD. Displace CaCl in annulus w/ FW. Land tbq hanger & ND BOP, rig released @ 1000 hrs, 10/7/05.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN  
DUPLICATE

(See other instructions on  
reverse side)

FORM APPROVED  
OMB NO. 1004-0137  
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION:  
☒ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR  
WILLIAMS PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 3102 MS 25-1 TULSA, OK 74101 (918) 573-6254

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At Surface: 95' FSL & 1415' FEL  
At top production interval reported below:  
At total depth: 1093' FSL & 1843' FEL

15. DATE  
SPUDDED  
09/20/05

16. DATE T.D.  
REACHED  
10/06/05

17. DATE COMPLETED (READY TO PRODUCE)  
10/07/05

14. PERMIT NO.

DATE ISSUED

18. ELEVATIONS (DK, RKB, RT, GR, ETC.)\*  
6671' GR

10. FIELD AND POOL, OR WILDCAT  
BASIN FRUITLAND COAL

11. SEC. T.R.M. OR BLOCK AND  
SURVEY OR AREA  
SW/4 SE/4 SEC 12-31N-5W

12. COUNTY OR  
RIO ARriba

13. STATE  
NEW MEXICO

19. ELEVATION CASINGHEAD

20. TOTAL DEPTH, MD & TVD  
3488' MD TVD  
4419' MD

21. PLUG, BACK T.D., MD & TVD

22. IF MULTICOMP.,  
HOW MANY

23. INTERVALS  
DRILLED BY

ROTARY TOOLS  
x

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)\*  
3645 - 4419

25. WAS DIRECTIONAL SURVEY MADE  
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED  
NO

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB/FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9-5/8" K-55	36#	324'	12-1/4"	255 SX - SURFACE	
7" K-55	23#	3645'	8-3/4"	600 SX - SURFACE	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4-1/2", 11.6#, J-55	3001'	4415'	0 sx		2-3/8", 4.7#, J-55	3640'	

31. PERFORATION RECORD (Interval, size, and number)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED

WELL WAS NOT ACIDIZED OR FRACED

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump) Flowing				WELL STATUS (PRODUCING OR SI) Producing	
DATE OF TEST	TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
10/30/05	3 hr	3/4"			344		
FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY-API (CORR.)
205	990						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): TO BE SOLD

TEST WITNESSED BY: MARK LEPICH

35. LIST OF ATTACHMENTS: SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Shirley Rees

TITLE Sr. Production Analyst DATE June 15, 2006

ACCEPTED FOR RECORD

NMOCD

JUN 19 2006

FARMINGTON FIELD OFFICE

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals, and all drill stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries)					38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP		
					NAME	MEASURED DEPTH	TRUE VERTICAL DEPTH
					OJO ALAMO	2868'	
					KIRTLAND	2976'	
					FRUITLAND	3320'	
					BASE OF COAL	3497'	

Williams Production Company, L.L.C.

Rosa Unit Well No. 382

30-039-29364

Spud Date: Sep 6, 2005

TD'd: 4,419' MD on 10-6-2005

Reported top of coal @ ~~3391' or 3295'~~ (3320')

Surface Location: 95' FSL - 1415' FEL (0) 12-T31N-R5W

Sub-surface Locations:

KOP @ 3004'

Top of Coal (3320')

Calculated @ 138' FSL + 1439' FEL

Horizontal Inclination achieved @ 38 4/3' MD (3486 TMA)

573' FSL - 1597' FEL

TD @ 4419'

1093' FSL + 1843' FEL (0) 12-T31N-R5W

Horizontal length = 576'

7" Casing landed @ 3645' MD (3472' TMA)  
(Cemented to surface) → 391' FSL - 1520' FEL

4 1/2" liner from 3001' to 4415'

Perforations from 3056' to 4411'

@ 23937' MD to wellbore is 660' FSL at Sec. 12