

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF- 078767		
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
2. NAME OF OPERATOR Williams Production Company, LLC		7. UNIT AGREEMENT NAME Rosa Unit		
3. ADDRESS OF OPERATOR c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892		8. FARM OR LEASE NAME, WELL NO. 171B		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At Surface 725' FSL and 1235' FEL SE SE At proposed Prod. Zone 550' FNL and 1980' FEL NW NE		9. API WELL NO. 30-039-27013		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 28 miles NE of Blanco, NM		10. FIELD AND POOL OR WILDCAT Blanco Mesa Verde		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 725'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 6, T31N, R5W		
16. NO. OF ACRES IN LEASE 2518.04		12. COUNTY OR PARISH Rio Arriba		
17. NO. OF ACRES ASSIGNED TO THIS WELL 231.86		13. STATE NM		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 1500'		19. PROPOSED DEPTH 6373' (measure depth)		
20. ROTARY OR CABLE TOOLS Rotary		21. APPROX DATE WORK WILL START* June 20, 2002		
22. ELEVATIONS (Show whether DF, RT, GR, etc.) 6416' GR				
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#	+/- 250'	~180 cu.ft. Type III with 2% CaCl ₂
8-3/4"	7"	20#	+/- 4220'	~939 cu.ft. 65/35 poz & ~330 cu.ft. Type I
6-1/4"	4-1/2"	10.5#	+/- 4120'-6373'	~101 cu.ft. 50/50 poz & ~199 cu.ft. PL HS

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

This location has been archaeologically surveyed by Independent Contract Archaeology. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will require ~1450' of new access road (see Pipeline & Well Plats #3 & #4). This pad will also be used for directionally drilling the Rosa 41B and Rosa 171C. The well will be accessed by utilizing an existing road that runs NE/NE of section 6, NW/NW, NE/NW of section 5 all of 31N, R5W and the SE/SW of section 32, 32N, 5W where it joins the main "Rosa Road".

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE John C. Thompson, Agent DATE 5/19/02

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ David J. Mankiewicz TITLE _____ DATE JUN 27

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

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

NMOCD

HOLD C104 FOR

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

OIL CONSERVATION DIVISION

PO Box 2088

Santa Fe, NM 87504-2088

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27013	*Pool Code 72319	*Pool Name BLANCO MESAVERDE
*Property Code 17033	*Property Name ROSA UNIT	*Well Number 171B
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 6416'

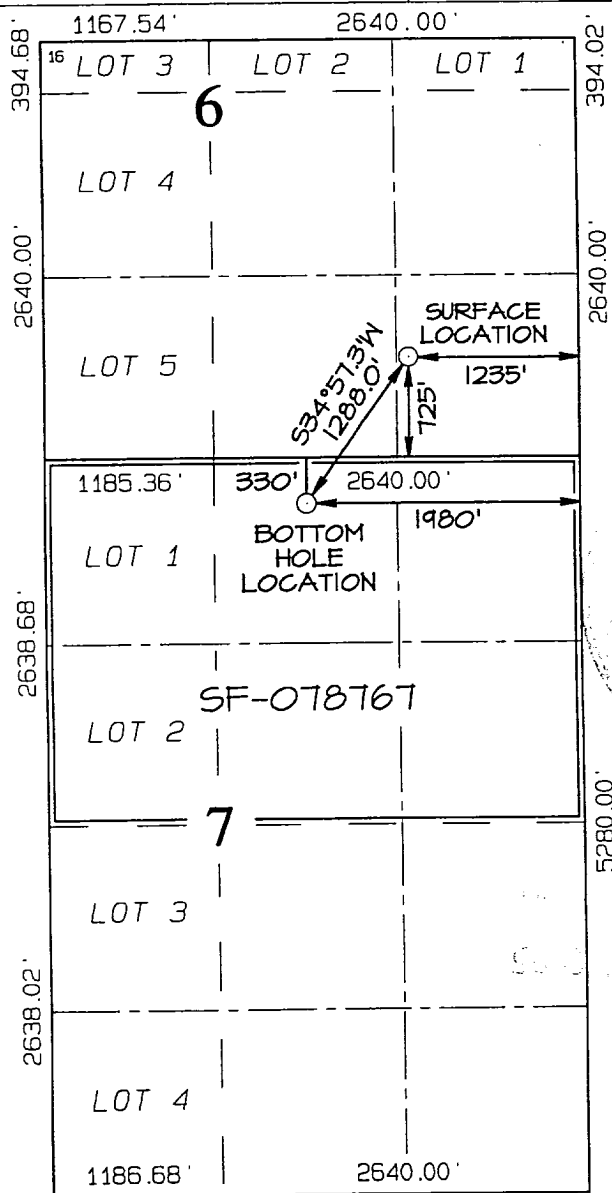
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	31N	5W		725	SOUTH	1235	EAST	RIO ARRIBA

¹¹Bottom 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
B	7	31N	5W		330	NORTH	1980	EAST	RIO ARRIBA


¹² Dedicated Acres	231.86 Acres - (N/2)	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

17 OPERATOR CERTIFICATION

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



Signature

JOHN C. THOMPSON

Printed Name

AGENT / ENGINEER

Title

5/19/02


Date

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.

Date of Survey: APRIL 2, 2002

Signature and Seal of Professional Surveyor

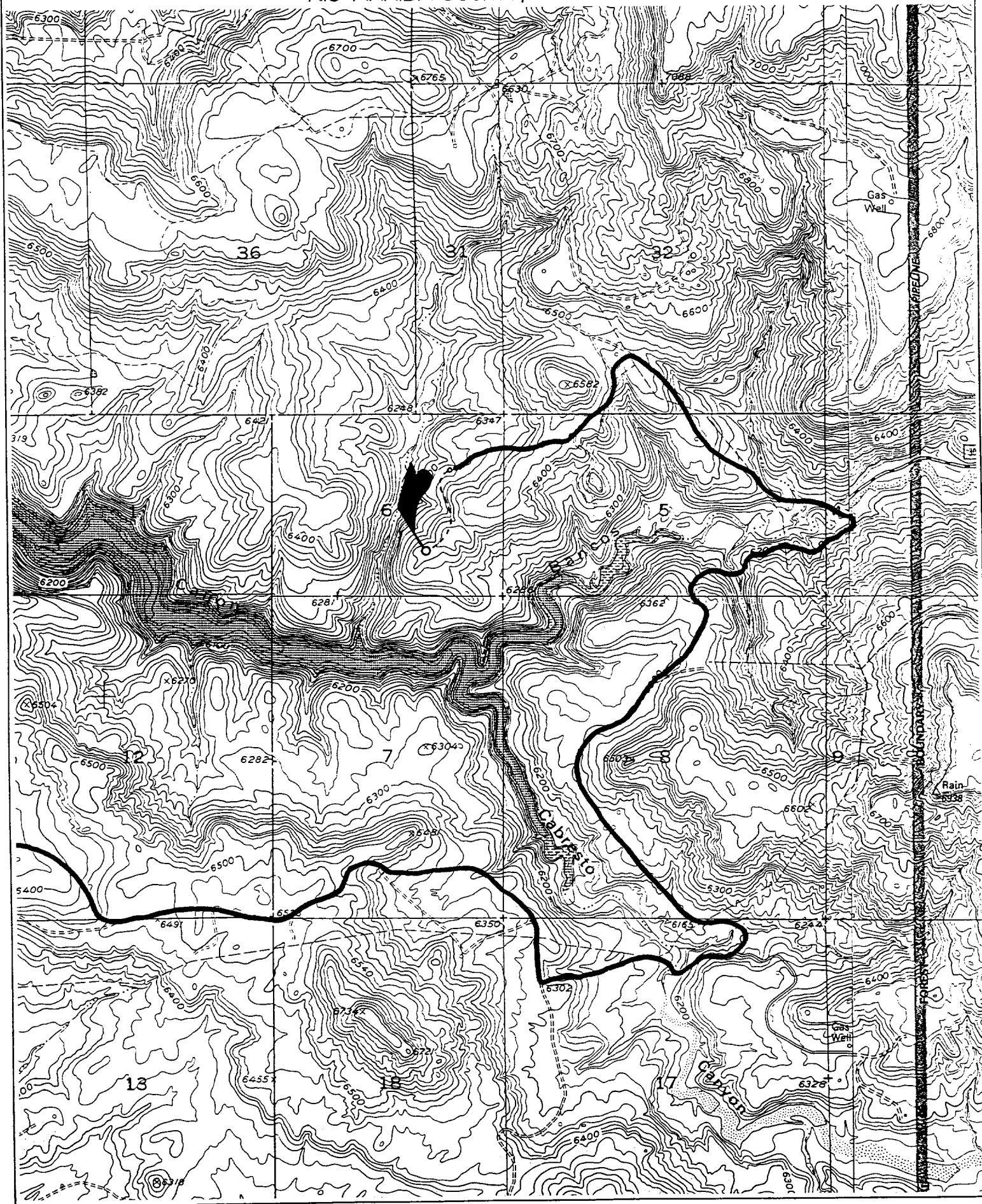


JASON C. EDWARDS

Certificate Number 15269

WILLIAMS PRODUCTION COMPANY ROSA UNIT #171B

725' FSL & 1235' FEL, SECTION 6, T31N, R5W, N.M.P.M.
RIO ARRIBA COUNTY, NEW MEXICO





WILLIAMS PRODUCTION COMPANY

Operations Plan

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

<u>DATE:</u>	4/24/2002	<u>FIELD:</u>	Blanco MV
<u>WELL NAME:</u>	Rosa Unit 171B	<u>SURFACE:</u>	BLM
<u>LOCATION:</u>	SE/4 SE/4 Sec 6-31N-5W Rio Arriba, NM	<u>MINERALS:</u>	BLM
<u>ELEVATION:</u>	6416' GR	<u>LEASE #</u>	SF-078767
<u>MEASURED DEPTH:</u>	6373'		

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

	<u>TVD</u>	<u>MD</u>		<u>TVD</u>	<u>MD</u>
Ojo Alamo	2483'	2607'	Cliff House	5458'	5683'
Kirtland	2588'	2721'	Menefee	5503'	5728'
Fruitland	3048'	3220'	Point Lookout	5698'	5923'
Pictured Cliffs	3248'	3437'	Mancos	6028'	6253'
Lewis	3543'	3749'	Total Depth	6148'	6373'

B. LOGGING PROGRAM: DIL from intermediate casing to TD. CNL/FDC over intervals of interest.(selected intervals by on-site Geologist). *Subject to change as wellbore conditions dictate.*

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. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. 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 (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	12-1/4"	250'	9-5/8"	36# K-55
Intermediate	8-3/4"	4220'	7"	20# K-55
Prod. Liner	6-1/4"	4120'-6373'	4-1/2"	10.5# K-55

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install one Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (4) joints to the surface casing. Total centralizers = (26) regular and (3) turbulent.
3. PRODUCTION CASING: 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20" bottom joint. Place marker joint above 5630'. Place one positive standoff turbolizer every other joint. Total turbolizers is 34.

C. CEMENTING:

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

1. SURFACE: Slurry: 140sx (180 cu.ft.) of "Type III" + 2% CaCl₂ + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 125% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. INTERMEDIATE: Lead: 450sx (939 ft³) of "Type III" 65/35 poz + 8% gel + 1% CaCl₂ + ¼ # cello-flake/sk (Yield = 2.09 ft³/sk, Weight = 12.1 #/gal.). Tail: 240x (330 ft³) of class "Type III" + 1% CaCl₂ + ¼ # cello-flake/sk. (Yield = 1.39 ft³/sk, Weight = 14.5#/gal.). The 100% excess in lead and tail should circulate cement to the surface. Total volume = 1269 ft³. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated to the surface. Test csg. to 1500psi.
3. PRODUCTION LINER: Scavenger: 30sx of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl (Weight = 11 #/gal). Lead: 50sx (101 ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl. (Yield = 2.02 cu.ft./sk, Weight = 12.5 #/gal.). Tail: 100 sx (199 ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl + .25 #/sk Celloflake + 4% Phenoseal. (Yield = 2.02 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. The 30% excess in lead and tail should cover liner top. Total volume 300ft³. WOC 12 hours.

Williams Production Company, LLC

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

