

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.

SF- 078773

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Rosa Unit

17033

8. FARM OR LEASE NAME, WELL NO.

77B

9. API WELL NO.

30-039-26926

10. FIELD AND POOL OR WILDCAT

Blanco Mesaverde

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

N Sec. 33, T31N, R5W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

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

c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892

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

At Surface 900' FSL and 2520' FWL

At proposed Prod. Zone

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

29 miles NE of Blanco, NM

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

900'

16. NO. OF ACRES IN LEASE

1920.00

17. NO. OF ACRES ASSIGNED TO THIS WELL

320 DRILLING OPERATIONS AUTHORIZED ARE

SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL,
DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.

1700'

19. PROPOSED DEPTH

6219'

21. ELEVATIONS (Show whether ~~procedural~~ review pursuant to 43 CFR 3160.3
6502' and appeal pursuant to 43 CFR 3165.4.22. APPROX DATE WORK WILL START*
April 1, 2002

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#	+/- 250'	~180 cu.ft. Type III with 2% CaCl ₂
8-3/4"	7"	20.0#	+/- 3849'	~905 cu.ft. 65/35 poz & ~252 cu.ft. Type I
6-1/4"	4-1/2"	10.5#	+/- 6219'	~157 cu.ft. 50/50 poz & ~238 cu.ft. PL HS

Williams Production Company proposes to drill a vertical well to develop the Mesa Verde formation at the above described location in accordance with the attached drilling and surface use plans. The surface is under the jurisdiction of the US Forest Service, Carson National Forest, Jicarilla District Office. 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 not require a new access road (see Pipeline & Well Plats #3 & #4). The access road will utilize an existing that runs north/south through the W/2 of section 33 of T31N R5W where it joins Forest Road 309 in the NW/4 of section 33 T31N R5W.

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

24.

SIGNED

John C. Thompson, Agent

DATE

1/30/02

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

4/9/02

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

AFM

DATE

4/9/02

*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.

NMOCD

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District I
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 30039-26926		*Pool Code 72319	*Pool Name Blanco Mesaverde
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 77B
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6502'

¹⁰ Surface Location


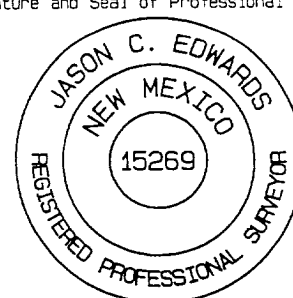
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	33	31N	5W		900	SOUTH	2520	WEST	RIO ARriba

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

¹² Dedicated Acres 320.0 Acres - (S/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

<div><p>¹⁶</p></div>	<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>John C. Thompson</i></p> <p>Signature</p> <p>John C. Thompson</p> <p>Printed Name</p> <p>Agent</p> <p>Title</p> <p>1/22/02</p> <p>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>Survey Date: FEBRUARY 5, 2001</p> <p>Revised: JANUARY 22, 2002</p> <p>Signature and Seal of Professional Surveyor</p>
	
	<p><i>Jason C. Edwards</i></p> <p>Certificate Number 15269</p>



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

<u>DATE:</u>	1/30/2002	<u>FIELD:</u>	Blanco MV
<u>WELL NAME:</u>	Rosa Unit 77B	<u>SURFACE:</u>	BLM/Forest
<u>LOCATION:</u>	SE/4 SW/4 Sec 33-31N-5W La Plata, CO	<u>MINERALS:</u>	BLM/ Forest
<u>ELEVATION:</u>	6502' GR	<u>LEASE #</u>	SF-78773
<u>MEASURED DEPTH:</u>	6219'		

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

	<u>MD</u>		<u>MD</u>
Ojo Alamo	2604'	Cliff House	5494'
Kirtland	2764'	Menefee	5549'
Fruitland	3109'	Point Lookout	5769'
Pictured Cliffs	3374'	Mancos	5059'
Lewis	3619'	Total Depth	6219'

B. LOGGING PROGRAM: IND/GR, CDL/SNL. Log the Mesa Verde from TD Intermediate Casing shoe. (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 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"	3849'	7"	20# K-55
Prod. Liner	6-1/4"	3749'-6219'	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 + 1/4 # 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: 435sx (905 ft³) of "Type III" 65/35 poz + 8% gel + 1% CaCl₂ + 1/4 # cello-flake/sk (Yield = 2.09 ft³/sk, Weight = 12.1 #/gal.). Tail: 185x (252 ft³) of class "Type III" + 1% CaCl₂ + 1/4 # 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 = 1157 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 (157 ft³) of Premium Light HS + 0.65% FL-52 + .32% CD-32 (Weight = 11 #/gal). Lead: 80sx (157 ft³) of Premium Light HS + 0.65% FL-52 + .32% CD-32. (Yield = 1.96 cu.ft./sk, Weight = 12.5 #/gal.). Tail: 120 sx (238 ft³) of Premium Light HS + 0.65% FL-52 + .32% CD-32 + .25 #/sk Celloflake + 4% Phenoseal. (Yield = 1.98 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. The 50% excess in lead and tail should cover liner top. Total volume 395ft³. WOC 12 hours.

IV COMPLETION

A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement is not circulated to surface.

B. PRESSURE TEST

1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Stimulate with approximately 80,000# of 20/40 sand in slick water.
2. Isolate Point Lookout with a DBP.
3. Perforate the Menefee/Cliff House as determined from the open hole logs.
4. Stimulate with approximately 80,000# of 20/40 sand in slick water.
5. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. *Mesa Verde*: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation.



John C. Thompson
Engineer

Walsh Engineering & Production

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

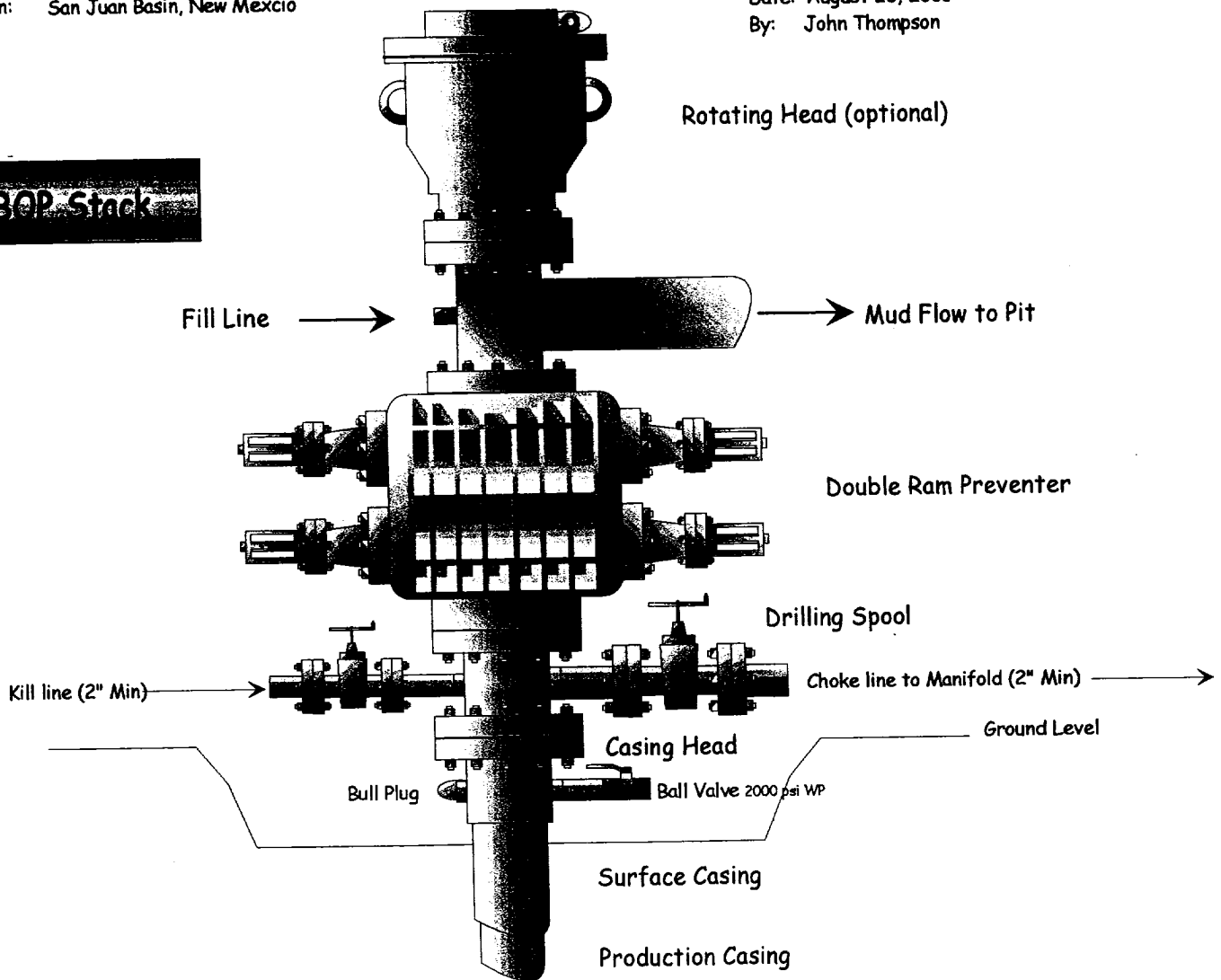
Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson

BOP Stack



Choke & Kill Manifold

