

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROW/APD

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. Type of Work

DRILL ☒

DEEPEN ☐

b. Type of Well

Oil Well ☐ Gas Well ☒ Other ☐

Single Well ☒ Multiple Zone ☐

2. Name of Operator

Williams Production Company

3. Address and Telephone No

P.O. Box 3102, MS 37-2, Tulsa, OK. 74101

4. Location of Well (Footages)

At Surface

1395' FSL 2245' FEL, NWSE

proposed prod. zone

14. Distance in Miles and Directions from Nearest Town or Post Office

Approximately 17.7 miles northeast of Navajo Dam Post Office (straight line)

15. Distance from Proposed Location to Nearest

Property or Lease Line, Ft 1395'

16. No. of Acres in Lease

2560.0 acres

17. No. of Acres Assigned to This Well

320 acres, E/2

18. Distance from Proposed Location to Nearest Well Drilling, Completed, or Applied for, on this Lease, FT

1200'

19. Proposed Depth

6100' KB

20. ~~Drilling Operations~~ **DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"**

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

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165. PROPOSED CASING AND CEMENTING PROGRAM

22. Approximate Date Work will Start

April 1, 2001

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# K-55	500'	255 sx-352 cu ft Type III
8-3/4"	7"	20# K55	3645'	405 sx-845 cu ft Type III
6-1/4"	4-1/2"	10.5# K55	3545'-6100'	180sx-251 cu ft Type III
				80sx-116 cu ft 190sx-277 cu ft Class H + 50/50 poz+4%gel

Williams Production Co. proposes to drill a vertical well to develop the Blanco Mesa Verde Formation in the described location above, and in accordance with the attached Operation and Surface Use plans. The surface is under the jurisdiction of the Bureau of Land Management-Farmington Field Office. Independent Contract Archaeology has surveyed the proposed location for Cultural Resources, and the report has been submitted to BLM for review. Nelson Consulting has submitted an environmental assessment to BLM-FFO for review.

This proposed well would not require the construction of a new access road (see Pipeline & Well Plats #3 and #4). The proposed 1,024-foot long pipeline would tie into the Williams Gas Gathering System on the Rosa Unit #36. This proposed well gathering pipeline would follow an existing gas field road (see the attached Pipeline Plat Map #4).

8. Above signature of the person who has proposed to deepen, give present productive zone and proposed new productive zone.

Signed

Steve Nelson

Title Agent

COPIES: BLM+4, WELL FILE+1

Date December 5, 2000

(This space for Federal or State office use)

Permit No.

Approval Date

Application approval does not warrant or certify that 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:

Jim Lovato

TITLE

Team Lead, Petroleum Management

DATE

FEB 15 2001

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-10
Revised February 21, 199
Instructions on bac
Submit to Appropriate District Office
State Lease - 4 Copie
Fee Lease - 3 Copie

200 DEC 11 PM 3:38 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039-26600		*Pool Code 72319	*Pool Name Blanco Mesaverde
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 36B
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6348

10 Surface Location

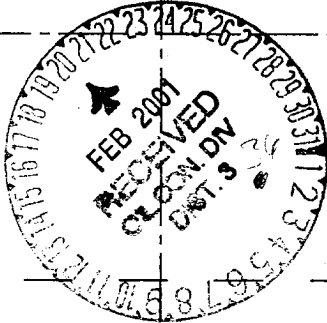

UL or lot no. J	Section 11	Township 31N	Range 6W	Lot Idn	Feet from the 1395	North/South line SOUTH	Feet from the 2245	East/West line EAST	County RIO ARriba
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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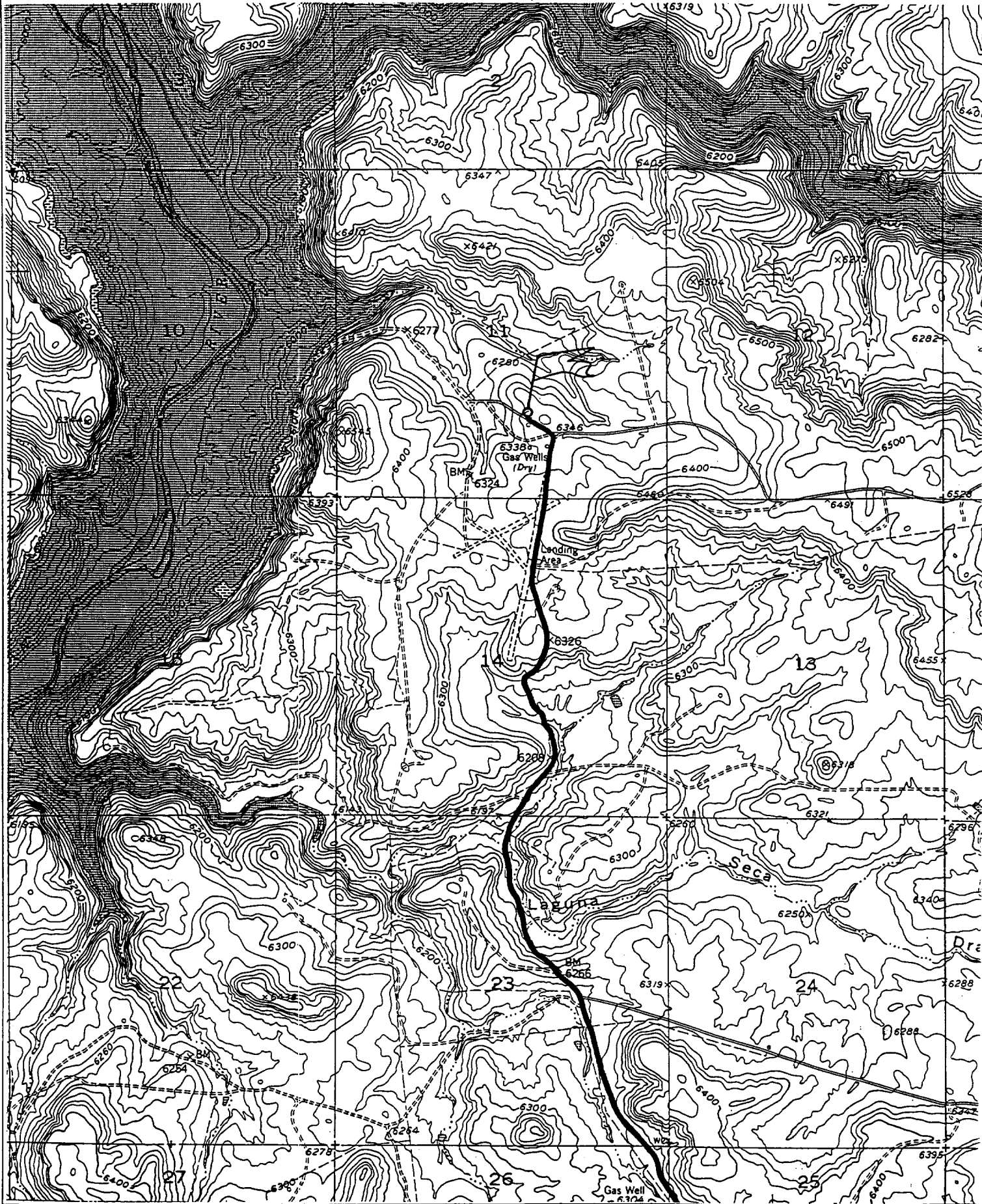
12 Dedicated Acres 320 - E/2	13 Joint or Infill I	14 Consolidation Code U	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

15	5280.00'	5289.24'	11	2245'	5287.92'	5280.00'	17 OPERATOR CERTIFICATION
							I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
							Signature <i>Steve Nelson</i>
							Printed Name Steve Nelson
							Title Agent, Nelson Consulting
							Date December 5, 2000
							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.
							OCTOBER 23, 2000
							Date of Survey
							Signature and Seal of Professional Surveyor
							
							Certificate No. 6857

WILLIAMS PRODUCTION COMPANY ROSA UNIT #36B

1395' FSL & 2245' FEL, SECTION II, T31N, R6W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO



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:

1. SURFACE: Slurry: 255sx (352 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: 405sx (845 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: 180sx (251 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 = 1096 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: Lead: 80sx (116 ft³) of Class-H + 50/50 poz + 4 % gel + 0.4% FL-52. (Yield = 1.45 cu.ft./sk, Weight = 13.2 #/gal.). Tail: 190sx (277 ft³) of Class-H + 50/50 poz + 4 % gel + 0.4% FL-5 + 1/4# celloflake/sk and 4% Phenoseal (Yield = 1.45 ft³/sk, Weight = 13.2 #/gal.). Displace cement at a minimum of 8 BPM. The 50% excess in lead and tail should cover liner top. Total volume 393 ft³. WOC 12 hours.

IV COMPLETION

A. CBL

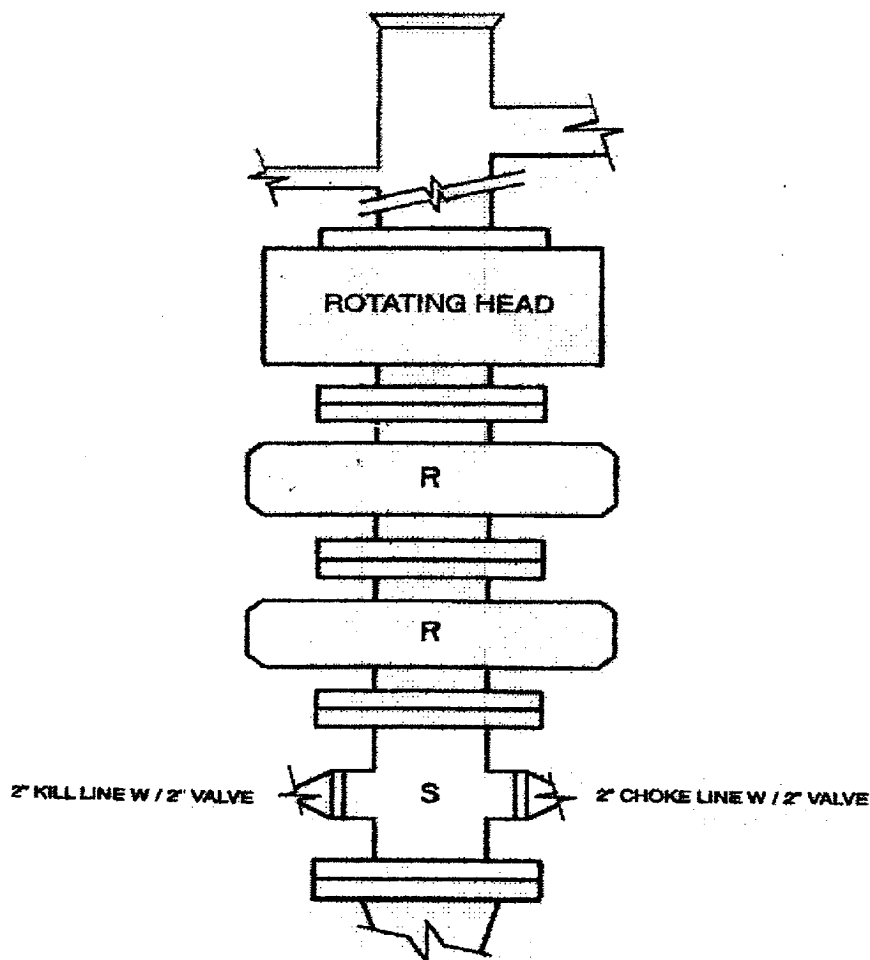
1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings.

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 CIBP.
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.



2M – BOP ARRANGEMENT

2M SYSTEM:

- Annular preventer or double ram or two rams with one being blind and one being a pipe ram
- Kill line (2 inch minimum)
- 1 kill line valve (2 inch minimum)
- 1 choke line valve
- 2 chokes (refer to diagram)
- Upper kelly cock valve with handle available
- Safety valve and subs to fit all drill strings in use
- Pressure gauge on choke manifold
- 2 inch minimum choke line
- Fill-up line above uppermost preventer

Anticipated reservoir pressure is expected to be less than 1300 psi on all encountered zones.

All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi. The pipe and blind rams will be activated and checked for operational readiness each trip. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock with handle, floor safety valve with changeovers for each tool joint in the string and choke manifold all rated to 2000 psi