

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROW/APD

FORM APPROVED
Budget Bureau No. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. Lease Designation and Serial No.
SF-078763

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation
Rosa Unit8. Well Name and No.
Rosa Unit #3599. API Well No.
30-039-26 72410. Field and Pool, or Explanatory Area
Basin Fruitland Coal11. Sec., T., R., M., or BLK.
and Survey or Area
K Section 4, T31N, R5W12. County or Parish
Rio Arriba13. State
NM

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

2155' FSL 1870' FWL, NESW

proposed prod. zone

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

Approximately 22.4 miles northeast of Navajo Dam Post Office (straight line)

15. Distance from Proposed (Also to nearest drig. unit line, if any)
Location to Nearest

Property or Lease Line, Ft 1870'

16. No. of Acres in Lease

2544.64 acres

17. No. of Acres Assigned to This Well

368.28 acres, All

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

1200'

19. Proposed Depth

3002 KB -

20. Rotary or Cable Tools

Rotary

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

6192' GR

22. Approximate Date Work will Start

May 1, 2001

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# K-55	250'	130 sx-188 cu ft Class Type 3
8-3/4"	7"	20# K-55	2845'	300 sx-617 cu ft Type 3 65/35 170 sx-238 Cu ft-Type III
6-1/4"	5-1/2"	15.5# K-55	2745' - 3002' -	Open hole completion, no cement

Williams Production Company proposes to drill a vertical well to develop the Basin Fruitland Coal 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 Carson National Forest, Jicarilla Ranger District.** Independent Contract Archaeology of La Plata, NM has surveyed the proposed location for Cultural Resources, and the report has been submitted to the BLM-FFO for review. The Forest Service will process this under their environmental procedures.

This proposed well would utilize an existing gas field road, therefore no new access road would be constructed (see Pipeline & Well Plats #3 and #4). The proposed 161-foot long pipeline would tie into Williams Gathering System on the Rosa Unit #107 (see the attached Pipeline Plat Map # 4). This application will also serve as the application for the pipeline right-of-way for the Forest Service.

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

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

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal to deepen, give present productive zone and proposed new productive zone.

Signed

Steve Nelson

Steve Nelson

Title Agent

COPIES: BLM+4, WELL FILE+1

Date March 27, 2001

(This space for Federal or State office use)

Permit No.

Approval Date

5/23/01

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:

/s/ Lee Otten

TITLE

DATE

NIMROD

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

2001 MAR 28 PM 2: 22

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26724		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 359
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6192'

¹⁰ Surface Location

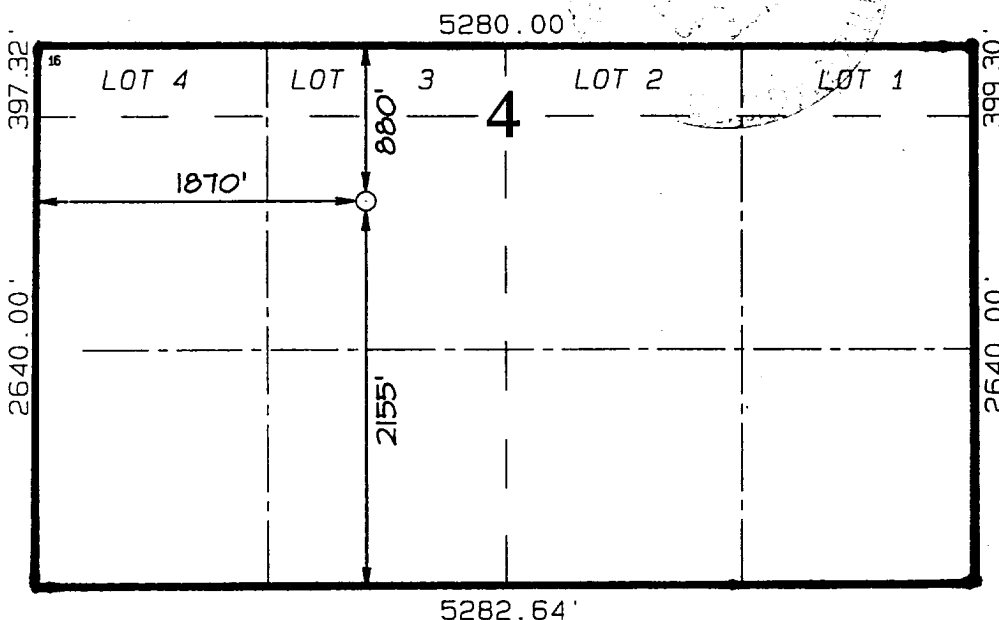
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	4	31N	5W		2155	SOUTH	1870	WEST	RIO ARriba

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 368.28 A11	¹³ Joint or Infill J	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



¹⁷ OPERATOR CERTIFICATION

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

Steve Nelson
Signature

Steve Nelson
Printed Name

Agent, Nelson Consulting
Title

March 27, 2001
Date

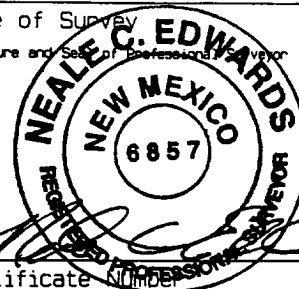
¹⁸ SURVEYOR CERTIFICATION

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.

JANUARY 9, 2001

Date of Survey

Signature and Seal of Professional Surveyor

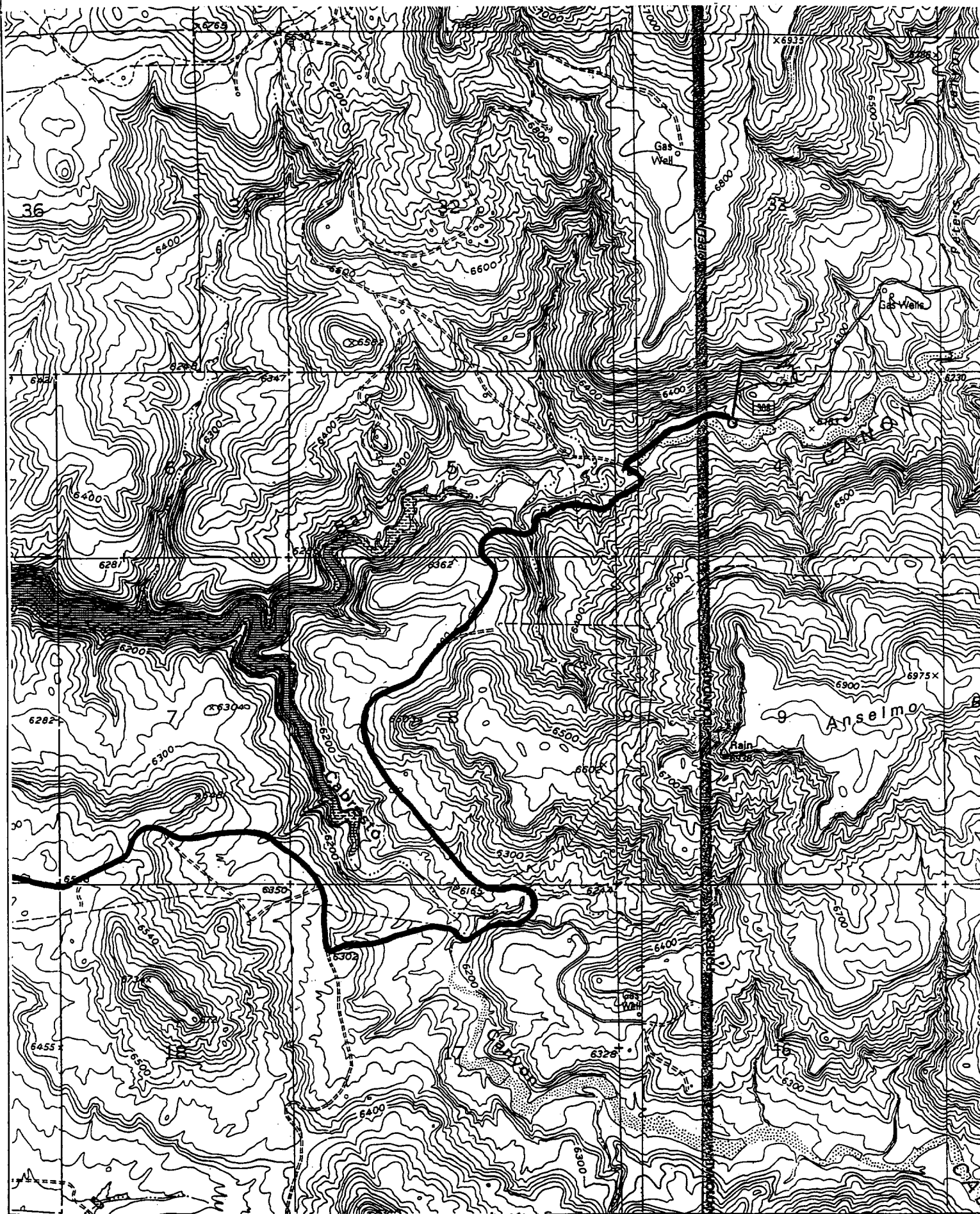


Certificate Number 6857

WILLIAMS PRODUCTION COMPANY ROSA UNIT #359

2155' FSL & 1870' FWL, SECTION 4, T31N, R5W, N.M.P.M.

RIO ARriba COUNTY, NEW MEXICO



B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self- fill insert float. Place float one(1) joint above the shoe and five(5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 1585' to the surface. Total centralizers = 5 regular and 14 turbulent.
3. PRODUCTION LINER: 5-1/2" liner with notched collar on bottom.

C. CEMENTING:

1. SURFACE: Use 130 sx (188 cu.ft.) of "Type III" with 2% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.41 cu.ft./sk, Weight = 14.5 #/gal.). Use 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. INTERMEDIATE: Lead - 300 sx (617 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl₂ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 170 sx (238 cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl₂ (Yield = 1.4 cu.ft./sk, Weight = 14.5 #/gal.). Use 100% excess in lead and tail to circulate to surface. Total volume = 855 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated. Test to 1500#.
3. PRODUCTION LINER: Open hole completion. No cement.

IV COMPLETION

A. PRESSURE TEST

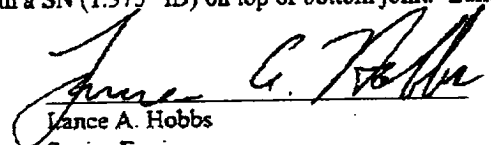
Pressure test 7" casing to 3300# for 15 minutes.

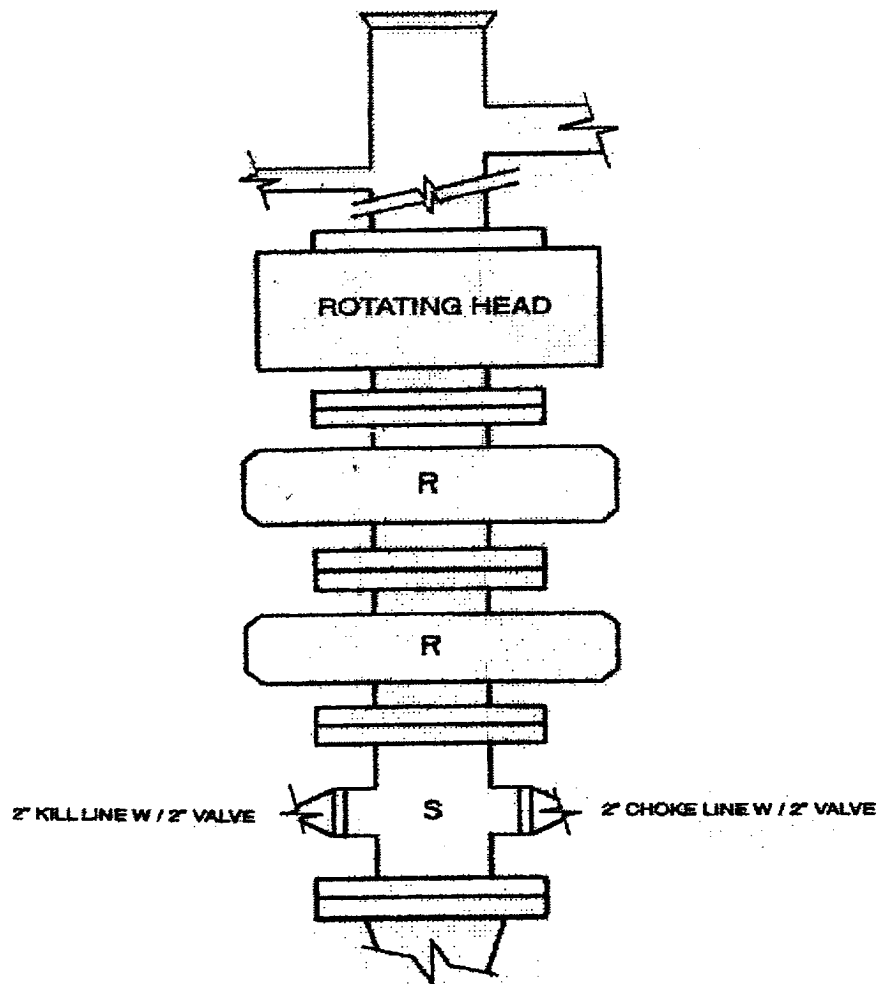
B. STIMULATION

Cavitate Well with reciprocation and rotation. Surge wells with water and air and then flow back to pit.
Cavitate for 2 to 3 weeks. Maximum pressure not expected to exceed 2,000 psi.

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 approximately 50' above TD.


Lance A. Hobbs
Senior Engineer



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