

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 DEEPEEN

1a Type of Work

DRILL ☒DEEPEEN ☐

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

2174' FSL 350' FEL, NESE Sec. 17, T31N, R6W (Surface Location)

2174' FSL 350' FWL, NWSW Sec. 16, T31N, R6W (Bottom Hole Location)

proposed prod. zone

2175'

2135'

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

Approximately 20.4 miles northeast of Navajo Dam Post Office (straight line)

15 Distance from Proposed Location to Nearest

Property or Lease Line, Ft 850'

16 No. of Acres in Lease

2552.71. acres

17 No. of Acres Assigned to This Well

320 acres, W/2

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

495'

19. Proposed Depth

TVD
3290 KB - 3600' MD

20 Rotary or Cable Tools

Rotary

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

G11 GR 6411'

22. Approximate Date Work will Start

April 1, 2000

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#	500'	255 sx-352 cu ft Class Type 3
8-3/4"	7"	20#	3420'	460 sx-959 cu ft Lite 65/35 50 sx-70 Cu ft-Class Type III
6-1/4"	5-1/2"	15.5#	3350' - 3600'	Open hole completion, no cement

Williams Exploration & Production 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 Bureau of Reclamation, Durango Colorado Office. Moore Anthropological Research of Aztec, NM has surveyed the proposed location for Cultural Resources, and the report has been submitted to the BLM for review.

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 495-foot long pipeline would tie into Williams Gathering System on the Rosa Unit Well #138 (see the attached Pipeline Plat Map # 4). This application will also serve as the application for the pipeline right-of-way.

This action is subject to technical and procedural review pursuant to 43 CFR 3103.3 and appeal pursuant to 43 CFR 3103.4.

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

Directional Survey

If applicant proposes to deepen, give present productive zone and proposed new productive zone

Signed

Steve Nelson

Title Agent

COPIES: BLM+4, WELL FILE+1

Date March 23, 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

/s/ Jim Lovato

TITLE

DATE

MAR-22-2000 13:23

P.02/03

District I

1911 Hwy 1900, Hobbs, NM 88241-1900

District II

111 South First, Artesia, NM 88210

District III

1900 New Braun Rd., Amar, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources DepartmentOIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

200 MAR 23 PM 3:27

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

AP# Number 30-045-30-700		Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 17033	Property Name ROSA UNIT		Well Number 341
OGRID No. 120782	Operator Name WILLIAMS PRODUCTION COMPANY		Elevation 6411'

10 Surface Location

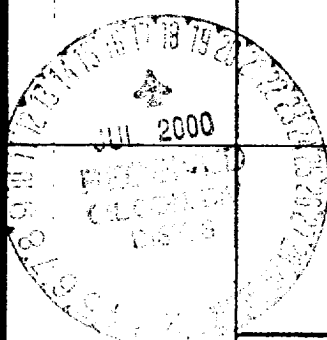
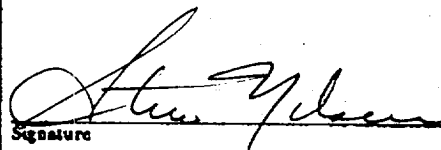

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	31N	6W		2174'	SOUTH	350'	EAST	SAN JUAN

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
L	16	31N	6W		2174'	SOUTH	350'	WEST	SAN JUAN

12 Dedicated Acres 320 - W/2	13 Joint or Infill J	14 Consolidation Code II	15 Order No. 2175
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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

16 N89°40'E 2638.02'	S89°58'E 2638.68'		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Steve Nelson Printed Name Agent, Nelson Consulting Title March 23, 2000 Date
Section 17	Section 16		
Surface 350'	Bottom 350'	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 10/06/99 Signature and Seal of Professional Surveyer: 	
2174'	2174'		
N89°45'E 2640.66'	N89°34'E 2640.00'	Tract 40	



WILLIAMS PRODUCTION COMPANY
Operations Plan

DATE: 2/1/2000

WELLNAME: Rosa #341

FIELD: Basin Fruitland Coal

LOCATION: Surface NE/4 SE/4 Sec. 17, T31N, R6W

SURFACE: BOR

Bottom Hole NW/4 SW/4 Sec 16, T31N, R6W (2174' PSL 850' FWL)

San Juan
 Rio Arriba, NM

ELEVATION: 6634' GR

MINERALS: Fed

TOTAL DEPTH: 3290' (TVD) 3600' (MD)

LEASE # SF-078766

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

	<u>TVD</u>	<u>MD</u>
Ojo Alamo	2410'	2700'
Kirtland	2530'	2820'
Fruitland	3070'	3370'
Base of Coal	3290'	3600'
Total Depth	3290'	3600'

B. LOGGING PROGRAM: No logs anticipated. Mud logger will be present to determine TD.

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. Treat for lost circulation as necessary. Expect 100% returns prior to cementing. Notify Engineering of any mud losses. If coal is detected before 3420 (MD) DO NOT drill deeper until Engineering is contacted.

B. Drilling Fluid: Coal section will be drilled with Fruitland Coal water. Mud logger will pick TD at +/- 3600' MD.

C. BOP TESTING: While drill pipe is in use, the pipe rams will be tested not less than once each day. The blind rams will be tested once each trip. The drum brakes will inspected and tested each tour. All tests and inspections 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. & GRADE</u>
Surface	12-1/4"	500'	9-5/8"	36# K-55
Intermediate	8-3/4"	3420'	7"	20# K-55
Prod. Liner	6-1/4"	3350'-3600'	5-1/2"	15.5# K-55

Rosa #341
Drilling Prognosis
Page #2

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 255 sx (352cu.ft.) of class "Type III" with 2% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). Use 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. INTERMEDIATE: Lead - 460sx (959 cu.ft.) of class "Premium Lite" 65/35 Type III/Poz with 8% gel, 1% CaCl₂ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 50sx (70cu.ft.) of class "Type III" with, 1% CaCl₂, and 1/4# cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5#/gal.). Use 100 excess in lead and tail to circulate to surface. Total volume = 1029 cu.ft. WOC 12 hours. Test to 1500#.
3. PRODUCTION LINER: Open hole completion. No cement.

IV COMPLETION

A. PRESSURE TEST

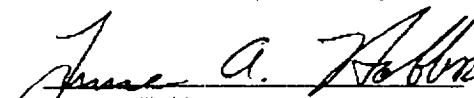
Pressure test 7" casing to 3300# for 15 minutes.

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", 4.6#, J-55, EUE tubing with a SN (1.375" ID) on top of bottom joint. Land tubing approximately 50' above TD.


Lance A. Hobbs
Engineer, Production & Drilling

file:341Rosa

WILLIAMS PRODUCTION Co.

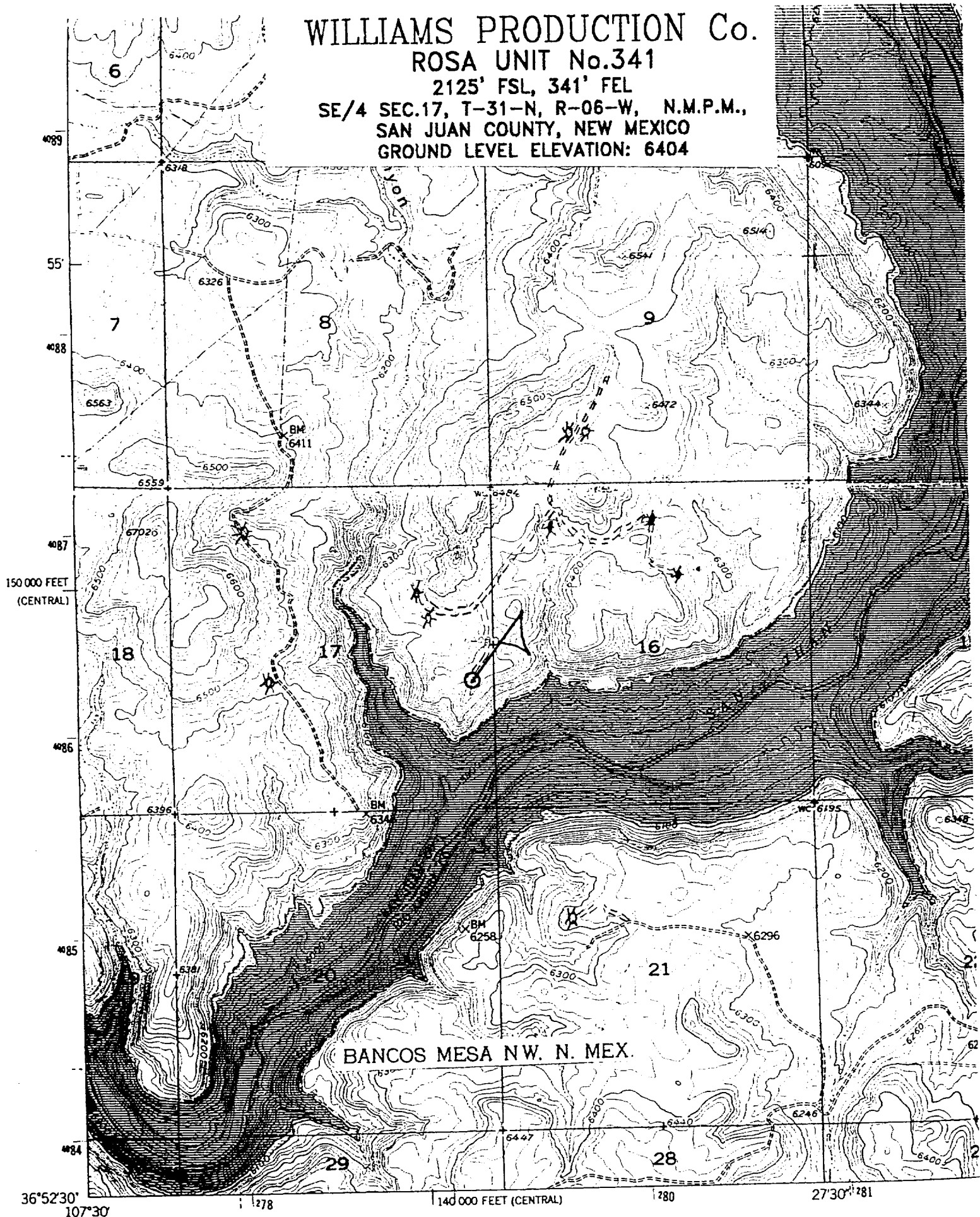
ROSA UNIT No.341

2125' FSL, 341' FEL

SE/4 SEC.17, T-31-N, R-06-W, N.M.P.M.,

SAN JUAN COUNTY, NEW MEXICO

GROUND LEVEL ELEVATION: 6404



Mapped, edited, and published by the Geological Survey

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Topography by photogrammetric methods from aerial photographs

RIVER
1 SE

