FORM 3160-3 (December 1990)

SUBMIT IN TRIPLICATE* (Other instructions on Form approved. Budget Bureau No. 1004-0136

5/22/02

AUG - 6 2002

DATE

SINGLE X ZONE C ton, NM 87402 A State requirements.*) FICE* 16. NO. OF ACRES IN LEA 19. PROPOSED DEPTH	SE 028' (measured depth)	5. LEASE DESIGNATION AND SERIAL NO. SF- 078762 6. IF INDIAN, ALLOTTEE OR TRIBE NAME 7. UNIT AGREEMENT NAME ROSA Unit 8. FARM OR LEASE NAME, WELL NO. 371 9. API WELL NO. 371 9. API WELL NO. 371 10. FIELD AND POOL OR WILDCAT Basin Fruitland Coal 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 13, T31N, R5W 12. COUNTY OR PARISH Rio Arriba 13. STATE NM 14. NO. OF ACRES ASSIGNED TO THIS WELL 320 DRILLING OPERATIONS AUTHORIZED AF SUBJECT TO COMPLIANCE WITH ATTACK 20. ROTARY OR GARLER NO. REQUIREMENTS. ROTARY 12. APPROX. DATE WORK WILL START. July 15, 2002
SINGLE X ZONE X Con, NM 87402 (State requirements.*) FICE* 16. NO. OF ACRES IN LEA 19. PROPOSED DEPTH challed and not to 43 CFR 3165.3 G CFR 3165.4	MULTIPLE ZONE 505) 327-48924 Air 2000 SEE	6. IF INDIAN, ALLOTTEE OR TRIBE NAME 7. UNIT AGREEMENT NAME ROSA Unit 8. FARM OR LEASE NAME, WELL NO. 371 9. API WELL NO. 30. 039. 27239 10. FIELD AND POOL OR WILDCAT Basin Fruitland Coal 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 13, T31N, R5W 12. COUNTY OR PARISH RIO Arriba 13. STATE NM 14. NO. OF ACRES ASSIGNED TO THIS WELL 320 DRILLING OPERATIONS AUTHORIZED AF SUBJECT TO COMPLIANCE WITH ATTACK 20. ROTARY OR GARLET TO COMPLIANCE WITH ATTACK ROTARY 12. APPROX. DATE WORK WILL START*
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3 CFR 3165.4	C PROCEAM	
	C DD OCD AM	
	G PRUGRAMI	
WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<i>36.0</i> #	+/- 250'	~188 cu.ft. Type III with 2% CaCl 2
20.0#	+/- 3230'	~762 cu.ft.65/35 poz & ~209 cu.ft.Typ
15.5#	+/- 3130' - 6028'	Open hole completion - no cement
ched drilling and AISES) - licaril	i surjace use piaris. La Ranger District o	ruitland Coal formation at the above The surface is under the f the Carson National Forest. ology. Copies of their report have been
	15.5# Il a horizontal we ched drilling and (USFS), Jicaril wed by Independent	15.5# +/- 3130' - 6028' Il a horizontal well to develop the Fiched drilling and surface use plans. (USES) Figarilla Ranger District 0

*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.

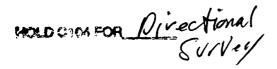
TITLE

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

ctionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any

TITLE John C. Thompson, Agent DATE

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.



Is/ David J. Manklewicz

If proposal is to drill or deepen

(This space for Federal or State office use)

CONDITIONS OF APPROVAL, IF ANY

SIGNED

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

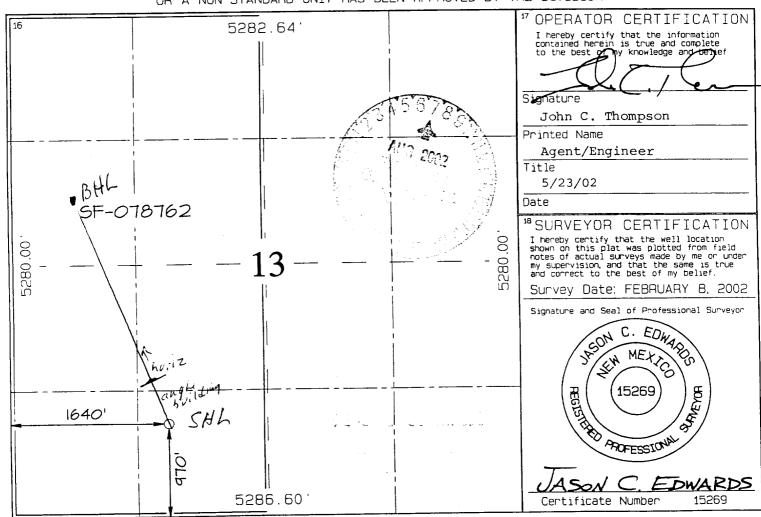
³Pool Name

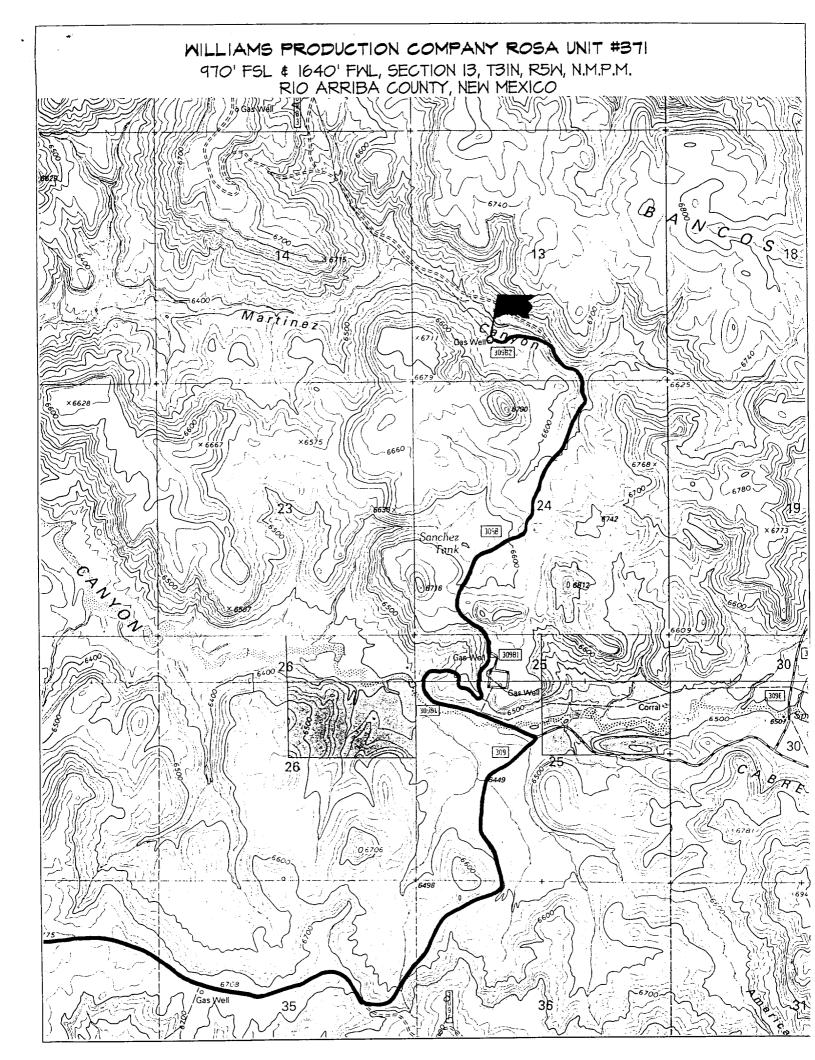
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

Al I Hamber			²Pool Co	l l	³Pool Name					
30-039-27239 71629				9	Basin Fruitland Coal					
'Property Code				Property Name				⁴Well Number		
1	17033				ROSA UNIT				. 371	
OGRID No.				*Operator Name				°Elevation		
12078					MS PRODUCTION COMPANY				6530 '	
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 RIO
N	13	31N	5W		970	SOUTH	1640	WES	iT	ARRIBA
¹¹ Bottom Hole Location If Different From Surface										
UL or lat no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West		County
E	13	31N	5 W		1980	North	660	W.e.s	57	
12 Dedicated Acres	L				¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.			
320.0 Acres - (W/2)					NSL-	4750	1			

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







WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE:

3/28/2002

WELLNAME:

Rosa #371

FIELD:

Basin Fruitland Coal

LOCATION:

SE/4 SW/4 Sec. 13, T31N, R5W

SURFACE:

Forest

ELEVATION:

Rio Arriba, NM 6530' GR

MINERALS:

Fed

TOTAL DEPTH:

0230. CK

3360'

LEASE#

SF-078762

I. GEOLOGY:

Surface formation - San Jose

A. FORMATION TOPS: (KB) Tops are estimates only. Logs will determine true depths.

		100
	TVD	MD
Ojo Alamo	2720'	2720'
Kirtland	2845'	2845'
Fruitland	3125'	3125'
Top of Coal	3250'	3250'
Base of Coal	3360'	3360'
Pictured Cliffs	3360'	3360'
Vertical section TD	3460'	3460
Total Depth	3360'	6028'

^{*} Note: Well will be vertically drilled 100' into Picture Cliff, logged through the PC. PC will then be plugged back (to a point yet determined) in order to kick-off and horizontally drill through the Fruitland Coal.

B. <u>LOGGING PROGRAM:</u> High Resolution SDL from TD to intermediate casing; DSN from TD to surface casing. Mud logger will be present to determine TD.

C. <u>NATURAL GAUGES</u>: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. <u>MUD PROGRAM:</u> 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 3125' DO NOT drill deeper until Engineering is contacted.

B. <u>Drilling Fluid:</u> Horizontal Coal section will be drilled with Fruitland Coal water.

C. <u>BOP TESTING</u>: 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:

CASING TYPE	HOLE SIZE	<u>DEPTH</u>	CASING SIZE	WT. & GRADE
Surface	12-1/4"	250'	9-5/8"	36# K-55
Intermediate	8-3/4"	3230'	7"	20# K-55
Prod. Liner	6-1/4"	3130-6028'	5-1/2"	15.5# K-55

B. FLOAT EQUIPMENT:

- 1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe.
- 2. <u>INTERMEDIATE CASING:</u> 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:

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

- 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 365 sx (762 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 150 sx (209 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 = 971 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

None expected

Williams Production Company, LLC Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

