

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
MAIL ROOM

29 MAR 17 PM 1:27

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL	FARMINGTON RESOURCE AREA	
1b. TYPE OF WELL GAS SINGLE ZONE	5. FARM OR LEASE NUMBER SF-078115	
2. OPERATOR SOUTHLAND ROYALTY CO.	6. IF INDIAN, ALL. OR TRIBE NAME	
3. ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499	7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL 2155'S 1290'W	8. FARM OR LEASE NAME GRENIER	
	9. WELL NO. 103	
	10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL	
	11. SEC. T. R. M OR BLK. L <del>18</del> SEC. 20 T31N R11W NMPM	
14. DISTANCE IN MILES FROM NEAREST TOWN 7 MILES FROM AZTEC	12. COUNTY SAN JUAN	13. STATE NM
15. DISTANCE FROM PROPOSED LOCATION 1290' TO NEAREST PROPERTY OR LEASE LINE.	16. ACRES IN LEASE 2434.39	17. ACRES ASSIGNED TO WELL 320.00
	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".	
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 500' COMPL., OR APPLIED FOR ON THIS LEASE.	19. PROPOSED DEPTH 2566'	20. ROTARY OR CABLE TOOLS ROTARY
	This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.	
21. ELEVATIONS (DF, FT, GR, ETC.) 6033'GL	22. APPROX. DATE WORK WILL START	
23. PROPOSED CASING AND CEMENTING PROGRAM		

\*SEE OPERATIONS PLAN

RECEIVED

APR 07 1989

24. AUTHORIZED BY: Randy Bradfield  
REGULATORY AFFAIRS

OIL CON. DIV  
DIST. 3

3-16-89

APPROVED  
AS AMENDED

APR 05 1989

AREA MANAGER

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3

ENCLOSURE

# OPERATIONS PLAN

DATE: MAR 14, 1985

Well Name: 103 GRENIER  
 Sec. 20 T31N R11W  
 BASIN FRUITLAND COAL

2155'S 1290'W  
 SAN JUAN NEW MEXICO  
 Elevation 6033'GL

Formation tops: Surface- NACIMIENTO  
 Ojo Alamo- 905  
 Kirtland- 990  
 Fruitland- 2210  
 Fruitland Coal Top- 2457  
 Fruitland Coal Base- 2543  
 Intermediate TD- 2437  
 Total Depth- 2566  
 Pictured Cliffs- 2570

Logging Program: Mud logs from intermediate to total depth.

Mud Program: Low solid non-dispersed mud from surface to total depth.

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2437	7"	20.0#	K-55
	6 1/4"	2387 - 2566	5 1/2"	15.5#	K-55
Tubing Program:		0 - 2566	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe.

5 1/2" production liner - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

## Cementing:

9 5/8" surface casing - cement with 106 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (125 cu ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 177 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu.ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 461 cu ft. of slurry, 100% excess to cover the Ojo Alamo. Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1500 psi for 30 minutes.

5 1/2" liner - do not cement.

The Fruitland coal formation will be completed.

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well. This gas is dedicated.  
 The W/2 of Section 20 is dedicated to this well.

All distances must be from the outer boundaries of the Section.

Operator <b>Southland Royalty Company</b>			Lease <b>Grenier</b>		Well No. <b>103</b>
Unit Letter <b>L</b>	Section <b>20</b>	Township <b>31 North</b>	Range <b>11 West</b>	County <b>San Juan</b>	
Actual Footage Location of Wells <b>2155</b> feet from the <b>South</b> line and <b>1290</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6033'</b>	Producing Formation <i>Frontland Coal</i>		Pool <i>Basin</i>		Dedicated Acreage <b>3.20</b>

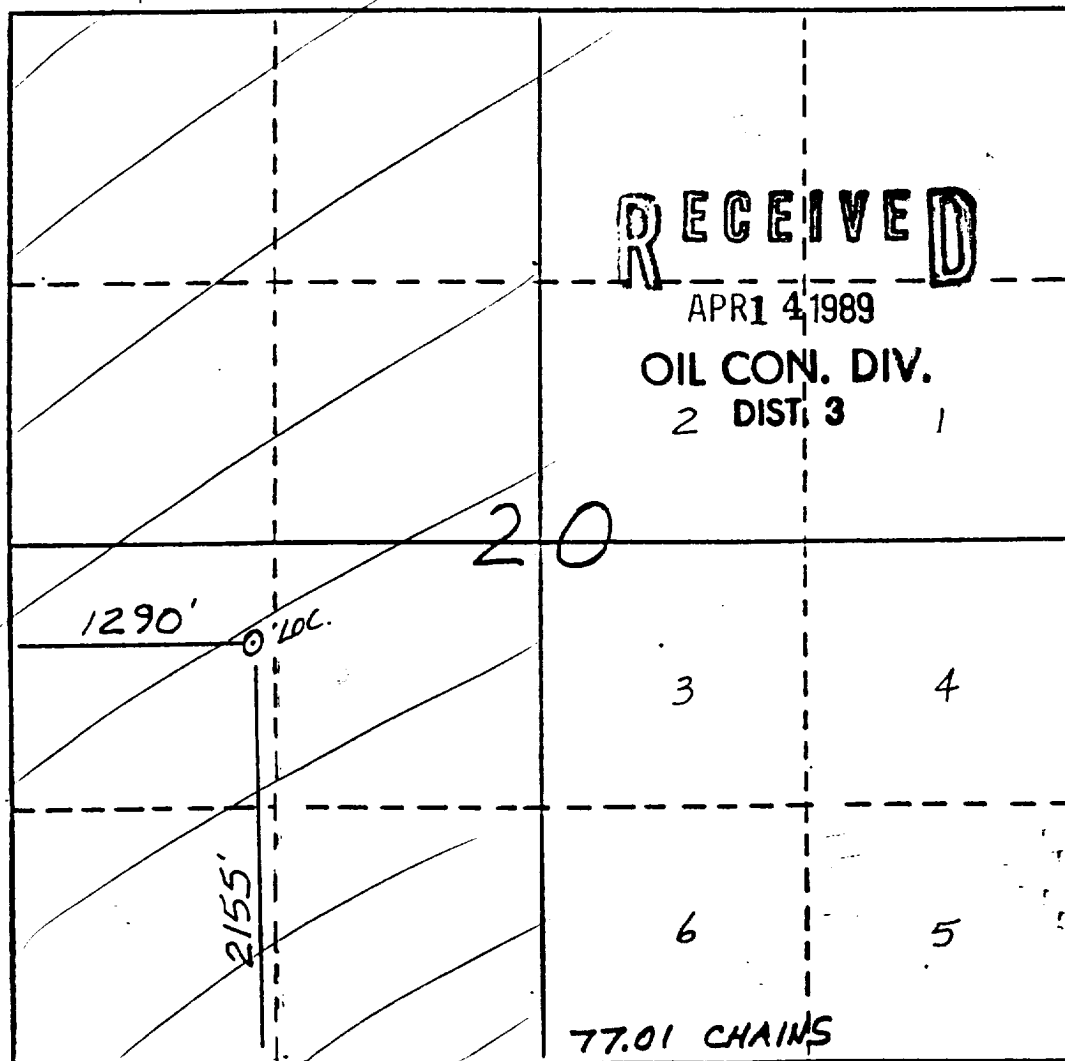
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to well interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Div

*Revised to show corrected U.S.L.*



CERTIFICATION

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

*Original Signed*

Name \_\_\_\_\_

Position \_\_\_\_\_

Company \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

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T31N,R11W

Section 19: NENE

18: SESE

W2SE

NESE

E2NE

NWNE

17: SWSW

7: SESE

SWSE

MAP 2

GRANIER 103

Fee Lands

SF078115

SF078115

BLM ROW

