

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
1b. TYPE OF WELL GAS SINGLE ZONE
2. OPERATOR SOUTHLAND ROYALTY CO.
3. ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499
4. LOCATION OF WELL 2155'S 1290'W
14. DISTANCE IN MILES FROM NEAREST TOWN 7 MILES FROM AZTEC
12. COUNTY SAN JUAN 13. STATE NM
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE. 1290'
16. ACRES IN LEASE 2434.39
17. ACRES ASSIGNED TO WELL 320.00
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 500'
19. PROPOSED DEPTH 2566'
20. ROTARY OR CABLE TOOLS ROTARY
21. ELEVATIONS (DF, FT, GR, ETC.) 6033'GL
22. APPROX. DATE WORK WILL START
23. PROPOSED CASING AND CEMENTING PROGRAM

FARMINGTON RESOURCE AREA
5. FARM OR LEASE NUMBER SF-078115
6. IF INDIAN, ALL. OR TRIBE NAME
7. UNIT AGREEMENT NAME
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 A SEC. 20 T31N R11W NMPM

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

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

*SEE OPERATIONS PLAN

RECEIVED

APR 07 1989

24. AUTHORIZED BY: [Signature] REGULATORY AFFAIRS

OIL CON. DIV 3-16-89 DIST. 3

APPROVED AS AMENDED

APR 05 1989

AREA MANAGER

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

Handwritten initials 'et' and 'E'

BLM logo

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.

OIL CONSERVATION DIVISION

P. O. BOX 2088

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Form C-10
Revised :

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

Operator Southland Royalty Company		Lease Grenier		Well No. 103
Unit Letter L	Section 20	Township 31 North	Range 11 West	County San Juan
Actual Footage Location of Wells 2155 feet from the South line and 1290 feet from the West line				
Ground Level Elev. 6033'	Producing Formation <i>Frithland Coal</i>	Pool <i>Basin</i>	Dedicated Acreage: 320	

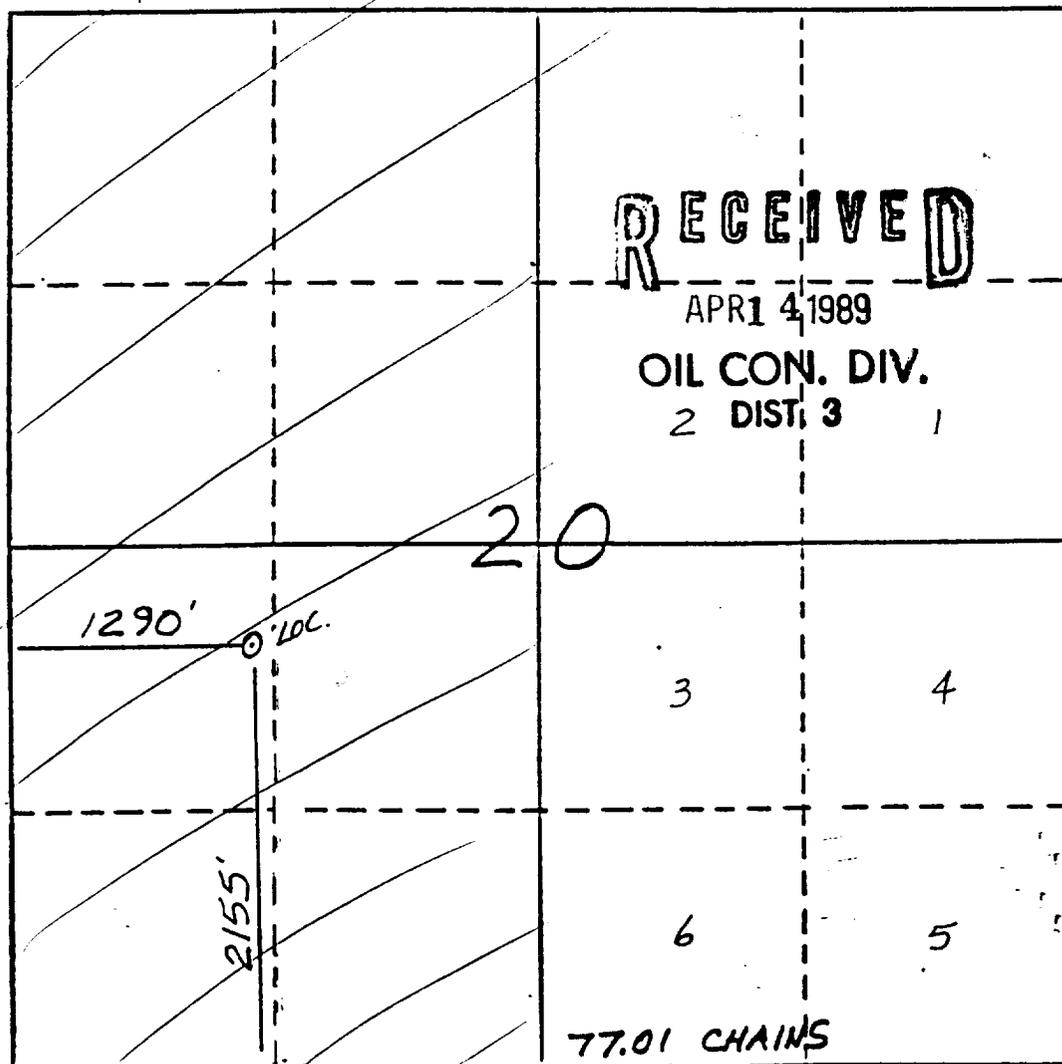
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to well interest and royalty).
3. If more than one lease of different ownership is dedicated 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 UoL



CERTIFICATION

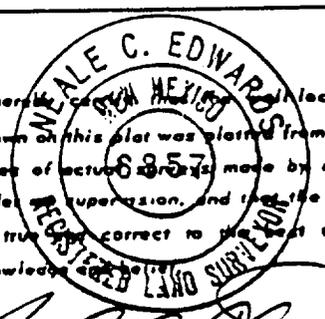
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Original Signed

Name
Peggy
Position
Surveyor
Company

Date

I hereby certify that the location shown on this plat was plotted from notes of actual *6857* made by me under supervision, and that the same is true and correct to the best of my knowledge and belief.



Neale C. Edwards
Date Surveyed
11-30-88

Registered Professional Engineer and/or Land Surveyor

Neale C. Edwards

Certificate No. **6857**

