## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK la. TYPE OF WORK 5. LEASE NUMBER DRILL SF-076958 1b. TYPE OF WELL 6. IF INDIAN, ALL. OR TRIBE NAME GAS SINGLE ZONE 2. OPERATOR 7. UNIT AGREEMENT NAME SOUTHLAND ROYALTY CO. 3. ADDRESS & PHONE NO. OF OPERATOR 8. FARM OR LEASE NAME P O BOX 4289 HARE FARMINGTON, NM 87499 9. WELL NO. 296 LOCATION OF WELL 10. FIELD, POOL, OR WILDCAT 1450'N 1565'E BASIN FRUITLAND COAL 11. SEC. T. R. M OR BLK. G SEC. 23 T29N R10W NMPM DISTANCE IN MILES FROM NEAREST TOWN 12. COUNTY 13. STATE 2 MILES FROM BLANCO SAN JUAN 15. DISTANCE FROM 16. ACRES IN LEASE 17. ACRES ASSIGNED TO WELL PROPOSED LOCATION 1450' DRILLING 200 ERADONS AUTHORIZED ARE TO NEAREST PROPERTY 2336.05 SUBJECT TO COMPLIANCE WITH ATTACHED! OR LEASE LINE. "GENERAL REQUIREMENTS" 18. DISTANCE FROM 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS PROPOSED LOCATION 2098' ROTARY TO NEAREST WELL DR. 400' This action is subject to technical and COMPL., OR APPLIED procedural review pursuant to 43 CFR 3165.3 FOR ON THIS LEASE. and appeal pursuant to 43 CFR 3165.4 ELEVATIONS (DF, FT, GR, ETC.) 22. APPROX. DATE WORK WILL START 5740'GL PROPOSED CASING AND CEMENTING PROGRAM  $\overline{23}$ . \*SEE OPERATIONS PLAN APR 0 6 1989 OIL CAN III 0.37 24. AUTHORIZED BY -30-89 REGULATORY AFFAIRS

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

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ENERGY AND MINERALS DEPARTMENT SANTA FE, NEW MEXICO 87501 All distances must be from the outer boundaries of the Section Well No. Southland Royalty Co (SF-076958) Hare 296 Unit Letter Section Range . Township 23 29 North 10 West San Juan Actual Fastage Location of Wells 1450 feet from the North line and 1565 East Ground Level Elev. Producing Formation Dedicated Acreage: Fruitland Coal Basin 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 wo interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been cor dated by communitization, unitization, force-pooling. etc? If answer is "yes," type of consolidation Yes Yes No If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse si this form if necessary.)\_ No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitiza forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Div CERTIFICATION I hereby certify that the information tained herein is true and complete Regulatory Affairs LOC. 1565 Position Southland Royalty Company Date Date Surveyed 11-4-38 Registered Professional Engineer Neale C. Edward Certificate No.

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DATE: MAR 14,1989

Well Name: 296 HARE

1450'N 1565'E

Sec. 23 T29N R10W

SAN JUAN NEW MEXICO

BASIN FRUITLAND COAL

Elevation 5740'GL

Formation tops: Surface- NACIMIENTO

Ojo Alamo- 924

Kirtland- 1091

Fruitland- 1768

Fruitland Coal Top- 1956

Fruitland Coal Base- 2098

Intermediate TD- 1936

Total Depth- 2098

Pictured Cliffs- 2102

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-408 3/4" 0 - 19367" 20.0# K-55 6 1/4" 5 1/2" 1886 - 2098 15.5# K-55 Tubing Program: 0 - 20982 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 96 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. 304 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 N/2 of Section 23 is dedicated to this well.