

30-045-27649

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

<p>1a. TYPE OF WORK DRILL</p> <p>1b. TYPE OF WELL GAS</p> <hr/> <p>2. OPERATOR SOUTHLAND ROYALTY CO.</p> <hr/> <p>3. ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499</p> <hr/> <p>4. LOCATION OF WELL 1840'S 1460'W</p> <hr/> <p>14. DISTANCE IN MILES FROM NEAREST TOWN 4 MILES NE OF ABE'S STORE</p> <hr/> <p>15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE. 1460'</p> <hr/> <p>18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. COMPL., OR APPLIED FOR ON THIS LEASE. 200'</p> <hr/> <p>21. ELEVATIONS (DF, FT, GR, ETC.) 6227'GL</p> <hr/> <p>23. PROPOSED CASING AND CEMENTING PROGRAM</p>	<p>5. LEASE NUMBER SF-079037</p> <p>6. IF INDIAN, ALL. OR TRIBE NAME</p> <hr/> <p>7. UNIT AGREEMENT NAME</p> <hr/> <p>8. FARM OR LEASE NAME HALE</p> <p>9. WELL NO. 351</p> <hr/> <p>10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL</p> <p>11. SEC. T. R. M OR BLK. K SEC. 34 T31N R08W NMPM</p> <hr/> <p>12. COUNTY SAN JUAN</p> <p>13. STATE NM</p> <hr/> <p>16. ACRES IN LEASE 1280</p> <p>17. ACRES ASSIGNED TO WELL w/ 320.00</p> <hr/> <p>19. PROPOSED DEPTH 3090'</p> <p>20. ROTARY OR CABLE TOOLS ROTARY</p> <hr/> <p>22. APPROX. DATE WORK WILL START</p> <hr/> <p>24. AUTHORIZED BY: <u>[Signature]</u> REG. DRILLING ENGR.</p>
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*SEE OPERATIONS PLAN

NOTE: an APD was filed 4-14-88, approved 5-16-88, and rescinded 1-5-90. Technical report No. 1284 was issued for this wellsite on 3-30-88.

24. AUTHORIZED BY: [Signature]
REG. DRILLING ENGR.

2/5/90
DATE

PERMIT

RECEIVED

APPROVAL DATE

APPROVED

APPROVED BY

MAR 16 1990

TITLE

DATE

AS AMENDED

OIL CON. DIV. I

DIST. 3

MAR 13 1990

AREA MANAGER

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

NMOOD

U.S. DEPARTMENT OF AGRICULTURE

100-443887-10
CONFIDENTIAL

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-78

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

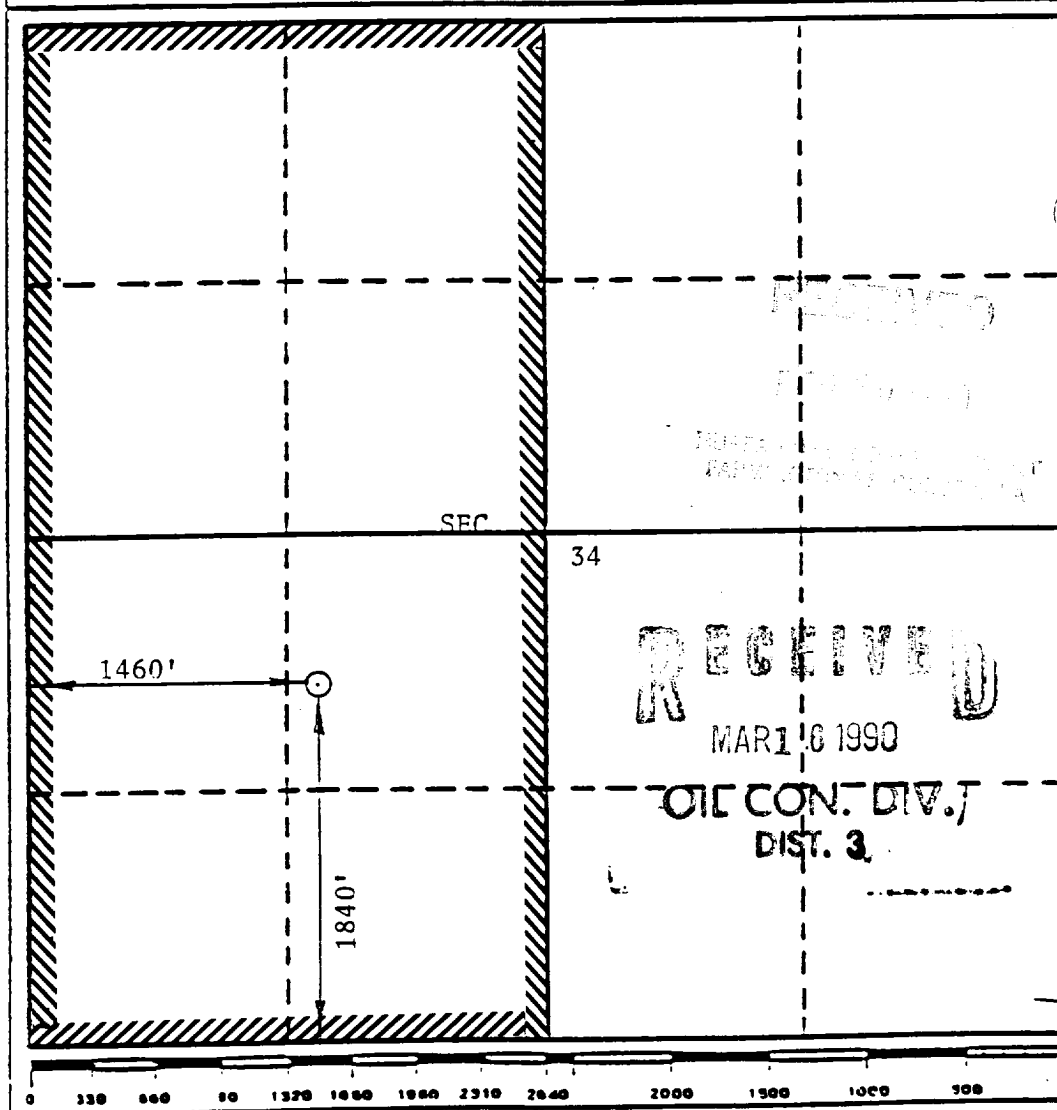
Operator SOUTHLAND ROYALTY COMPANY			Lease HALE (SF-079037)		Well No. 351
Unit Letter K	Section 34	Township 31-N	Range 8-W	County SAN JUAN	
Actual Footage Location of Well: 1840 feet from the SOUTH line and 1460 feet from the WEST line					
Ground Level Elev. 6227	Producing Formation FRUITLAND COAL		Pool BASIN		Dedicated Acres 320 Acres

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 working 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 Division..



CERTIFICATION

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

Name
REGULATORY AFFAIRS

Position
SOUTHLAND ROYALTY

Company
2-14-90

Date

ISAAC L. WEAVER
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
and/or Land Surveyor

MARCH 7, 1988

Date Surveyed

ISAAC L. WEAVER

Registered Professional Engineer
and/or Land Surveyor

Certificate No.

8966

Well Name: 351 HALE
 Sec. 34 T31N R08W
 BASIN FRUITLAND COAL

1840'S 1460'W
 SAN JUAN NEW MEXICO
 Elevation 6227'GL

Formation tops: Surface- SAN JOSE
 Ojo Alamo- 1960
 Kirtland- 2055
 Fruitland- 2820
 Fruitland Coal Top- 2925
 Fruitland Coal Base- 3077
 Intermediate TD- 2900
 Total Depth- 3090
 Pictured Cliffs- 3100

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 400	Spud	8.4 - 8.9	40-50	no control
	400 - 2900	Non-dispersed	8.4 - 9.1	30-60	no control
	2900 - 3090	Formation Water	8.4		no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 400	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2900	7"	20.0#	K-55
	6 1/4"	2850 - 3090	5 1/2"	15.5#	K-55
Tubing Program:		0 - 3090	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 casing - 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 320 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (377 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 423 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. 936 cu ft. of slurry, 110% excess to circulate to surface. Run temperature survey at 8 hours. WOC 12 hours.

5 1/2" liner - do not cement.

Map #1

