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OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-85

5A. Indicate Type of Lease  
STATE ☐ FEE ☒  
5. State Oil & Gas Lease No.

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work b. Type of Well OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. Unit Agreement Name	
2. Name of Operator Southland Royalty Company		8. Farm or Lease Name Smith "5"	
3. Address of Operator 21 Desta Drive, Midland, Texas 79705		9. Well No. 4	
4. Location of Well UNIT LETTER I LOCATED 2149 FEET FROM THE South LINE AND 700 FEET FROM THE East LINE OF SEC. 5 TWP. 19S RGE. 35E NMPM		10. Field and Pool, or Wildcat Scharb (Wolfcamp)	
11. County Lea		12. County Lea	
19. Proposed Depth 11,500'		19A. Formation Wolfcamp	
20. Rotary or C.T. Rotary		21. Elevations (Show whether DP, RT, etc.) 3866.3' GR	
21A. Kind & Status Plug. Bond		21B. Drilling Contractor	
22. Approx. Date Work will start 9-3-85			

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48#	400'	400 sx.	Circ.
12 1/2"	8 5/8"	28 & 24#	4000'	2200 sx.	Circ.
7 7/8"	5 1/2"	17 & 15.5#	11,500'	475 sx.	7380' (by TS)

- MIRUPU. POH w/rods. POH w/tbg. RIH w/cmt ret & set @ + 9480'.
- Cmt sqz perfs 9530-9610' (162) w/+ 150 sx C1 "H" w/2% CaCl (avoid excessive rate & press to prevent frac). Pull out cmt ret & rev out excess cmt. POH & LD tbg. RD PU.
- MIRU Drig rig. RIH w/4 3/4" bit on 3 1/2" drill collars & 2 7/8" DP.
- Drill out cmt & ret @ 9480' (w/brine wtr). Press test sqz'd perfs. If needed re-sqz. If hold press, drill out cmt & 5 1/2" csg shoe @ 9900'.
- RU mud loggers. Deepen w/4 3/4" bit (w/Tungsten Carbide inserts) to + 11,100' or to major drlg brk in objective dolomite pay (+ 50' chert above pay), w/9 ppg brine. Circ samples to surf & monitor press. Mud up (9.6-9.7 ppg was needed in the Peoples 32-1 & 33-1) w/X-C polymer & drispac to obtain req'd wt & VIS = 34-36 & WL = 6-10. Drill remaining of brk & TD @ + 11,400'.
- Condition and sweep hole. With bit off btm, rotate & record torque (this will approx torque to rotate the liner). Pull DC's into 5 1/2" csg, rotate & record torque (this will approx torque to when setting string is disengaged from liner).
- POH w/bit. RU WL trk & log open hole 11,400-9900' w/GR-CML-Density & GR-DLL (no RXO tool since 4 3/4" hole is too small).

OVER

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

Signed Danell Roberts Title Operations Engineer Date 8/20/85

(This space for State Use)  
ORIGINAL SIGNED BY JERRY SEXTON  
DISTRICT 1 SUPERVISOR

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

AUG 22 1985

8. Evaluate to run liner or complete open hole. If Liner: Run & hang + 1900' (11,400' to 9500') 4" 13.4# J-55 FL4S "Spiraline" (NL Atlas Bradford tradename) w/ID = 3.34", Drift ID = 3.215".  
NOTE: With top of liner @ 9500', will have 400' overlap & will cover all sqz'd perfs.  
Liner hanger: Brown-Hughes 4" x 5 1/2" 17# Type C Rotating hanger (see attached detail description).
9. Establish circ. Rotate liner w/csg tongs @ 3-10 RPM (@ + 5 min/15 min to prevent bearing failure) w/setting tool engaged. Record torque. Disengage setting tool & record torque. Set dwn & engage setting tool. Circ hole twice.
10. Cmt liner as follows (exact cmt vol to be determined from caliper):
  - 1) Pmp 20 bbl mud flush
  - 2) Pmp + 130 sx C1 "H" w/0.3% Halad-9, 0.5% CFR-2 & 5#/sk KCL (Yield - 1.06 cf/sk wt - 16.4 ppg, wtr req'd = 4.3 gal/sk)
  - 3) Start rotating liner continuously when cmt reaches shoe. Continue rotating until bump plug or excessive torque.
11. Release liner setting tool & POH. LD DP & collars. RD drlg rig.
12. MIRU PU. RIH w/4 3/4" bit & scraper & clean off top of liner. Press test liner top. POH.
13. RIH w/3 1/4" mill on 2 3/8" tbg & cleanout 4" liner. Displ hole w/2% KCl FW (or cut brine req'd for slight overbalance). POH w/bit.
14. Perf Wolfcamp as determined by OH logs w/max OD guns thru liner by wireline. (Liner ID: 3.34", Drift: 3.215).
15. RIH w/4" pkr (allow + one week advance notice to obtain) & set @ + 100' above top perfs. Swb test & evaluate.
16. Acdz w/volumes to be determined by amt of pay & number of perfs. Swb load back & test. POH w/pkr.
17. Design & install required pmpg equipment. If needed, add 1-500 bbl steel tank & 1-4' x 20' HT to existing batt @ Smith "5" #1 & reconnect so not mixed w/"5" #1 & 2 Bone Spring prod. (NOTE: Tank batt cannot be located @ "5" #4 due to close by ranch houses).

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# NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

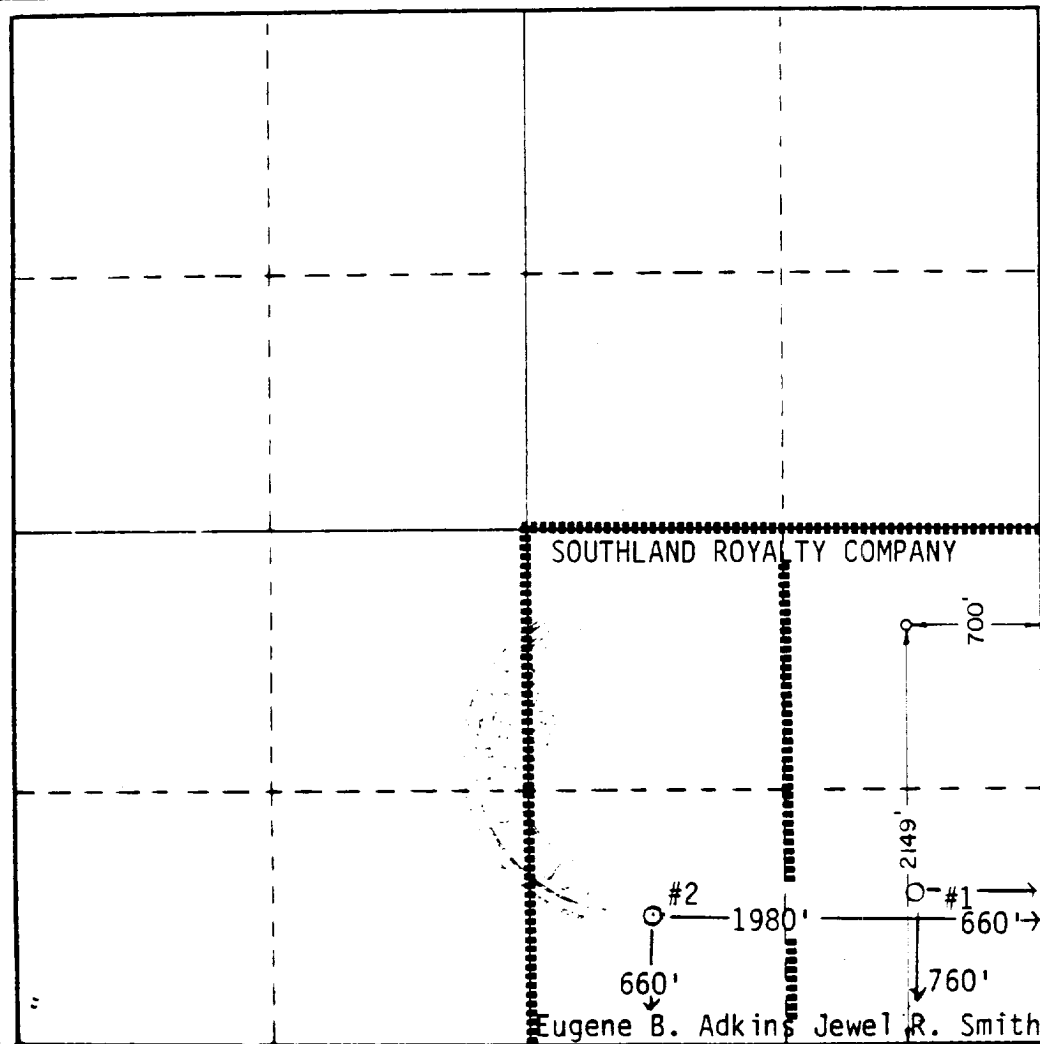
Operator Southland Royalty Company			Lease Smith 5		Well No. #4
Lot Letter 1	Section 5	Township 19 South	Range 35 East	County Lea	
Actual Footage Location of Well: 2149 feet from the south line and 700 feet from the east line					
Ground Level Elev. 3866.3'	Producing Formation Wolfcamp	Pool Scharb (Wolfcamp)		Dedicated Acreage: 80 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Commission.



## CERTIFICATION

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

*John R. Stark*

Name  
John R. Stark

Position  
Operations Engineer

Company  
Southland Royalty Company

Date  
6-26-84

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

Date Surveyed  
June 22, 1984

Registered Professional Engineer  
and/or Land Surveyor

*John W. West*

Certificate No. JOHN W. WEST, 676  
RONALD J. EIDSON, 3239

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

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