

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		3. LEASE DESIGNATION AND SERIAL NO. NM-0997	
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"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME 7. UNIT AGREEMENT NAME 8. FARM OR LEASE NAME Federal 21 9. WELL NO. 2	
2. NAME OF OPERATOR Southland Royalty Company		10. FIELD AND POOL, OR WILDCAT South Corbin (Wolfcamp)	
3. ADDRESS OF OPERATOR 21 Desta Drive, Midland, Texas 79705		11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA Sec 21, T-18-S, R-33-E	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1980 FSL & 1980 FWL Sec 21, T-18-S, R-33-E At proposed prod. zone		12. COUNTY OR PARISH Lea	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 miles southeast of Maljamar, New Mexico		13. STATE NM	
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'	16. NO. OF ACRES IN LEASE 320	17. NO. OF ACRES ASSIGNED TO THIS WELL 80	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320'	19. PROPOSED DEPTH 11,450'	20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3821' GR		22. APPROX. DATE WORK WILL START* 3-10-89	

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	350'	350 sx Cl. "C" CIRCULATE
12-1/4"	8-5/8"	24# & 28#	3000	1400 sx Lite "C" CIRCULATE
7-7/8"	5-1/2"	15.5# & 17#	11450'	1550 sx. TOC @ 2700'

Drill 17-1/2" hole to 350'. Set 13-3/8" csg @ 350', Cmt w/350 sx Cl "C", Circ. Drill 12-1/4" hole to 3000'. Run fluid caliper. Set 8-5/8" csg @ 3000'. Lead w/1200 sx Lite "C", tail in w/200 sx Cl "C", Circ. Drl to TD to test Middle & Lower Wolfcamp. If commercial, run 5-1/2" csg to 11,450'. Cmt w/sufficient volume to bring above all prospective zones. Est TOC @ 2700'. Perf & stimulate Wolfcamp for production.

MUD PROGRAM: 0-350' spud mud; 350-3000 brine; 3000-10700' cut brine & sweeps (chloride 30,000+). 10,700-TD cut brine & Drispac. MW 9.0-9.2 (Solids must be less than 5% w/VIS 32-36).

BOP PROGRAM: 13-5/8"-2M annular BOP to be installed on 13-3/8" csg. 11"-3M stack to be installed on 8-5/8" & left on for remainder of drlg. Stack to consist of annular BOP, blind ram BOP & one pipe ram BOP. Test BOP's after setting 8-5/8" csg with an independent tester.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Ernie M. [Signature] TITLE Operations Tech III DATE 2-10-89
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY _____ TITLE _____ DATE 3-13-89
CONDITIONS OF APPROVAL, IF ANY: _____