Form 3160-3
(December 1990)

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. OIL CONS. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-0997

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: na

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: West Corbin Federal #31

9. API WELL NO.: 30-025-32125

10. FIELD AND POOL, OR WILDCAT: South Corbin Wolfcamp

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 8, 18S, R33E

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [XX] GAS WELL [ ] OTHER — SINGLE ZONE [XX] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Southland Royalty Company

3. ADDRESS AND TELEPHONE NO.: P.O. Box 51810, Midland, TX 79710-1810

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: J, 2130' FSL & 1980' FEL
At proposed prod. zone: Unit J

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles Southeast of Maljamar, NM

12. COUNTY OR PARISH: Lea

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 510' from lease line S/2 of Sec. 8

16. NO. OF ACRES IN LEASE: 1920

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.: 1253' NE of #26

19. PROPOSED DEPTH: 11500'

20. ROTARY OR CABLE TOOLS: rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3900' GR

22. APPROX. DATE WORK WILL START*: upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½"	H-40, 13 3/8	48#	400'	425 sxs circ.
12¼"	K-55, 8 5/8	28#	2900'	1200 sxs circ.
7 7/8"	K-55,N-80 5½"	17#	11500'	2100 sxs TOC @ 2700'

Mud Program: 0-350' spud mud, 350-2900' Brine, 2900-10700' cut brine & sweeps (Chloride 30,000+), 10700-TD cut brine & drispac. MW 9.0-9.2 (solid must be less than 5% w/vis 32-36).

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 [signature] TITLE Production Assistant DATE 6/11/93

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

(ORIG. SGD.) RICHARD L. MANUS AREA MANAGER JUL 12 1993

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 1-1-89

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
SOUTHLAND ROYALTY COMPANY	WEST CORBIN FEDERAL	31

Unit Letter	Section	Township	Range	County
J	8	18 SOUTH,	33 EAST, NMPM	LEA

Actual Footage Location of Well:
2130 feet from the SOUTH line and 1980 feet from the EAST line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3900	WOLFCAMP	SOUTH CORBIN WOLFCAMP	80 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

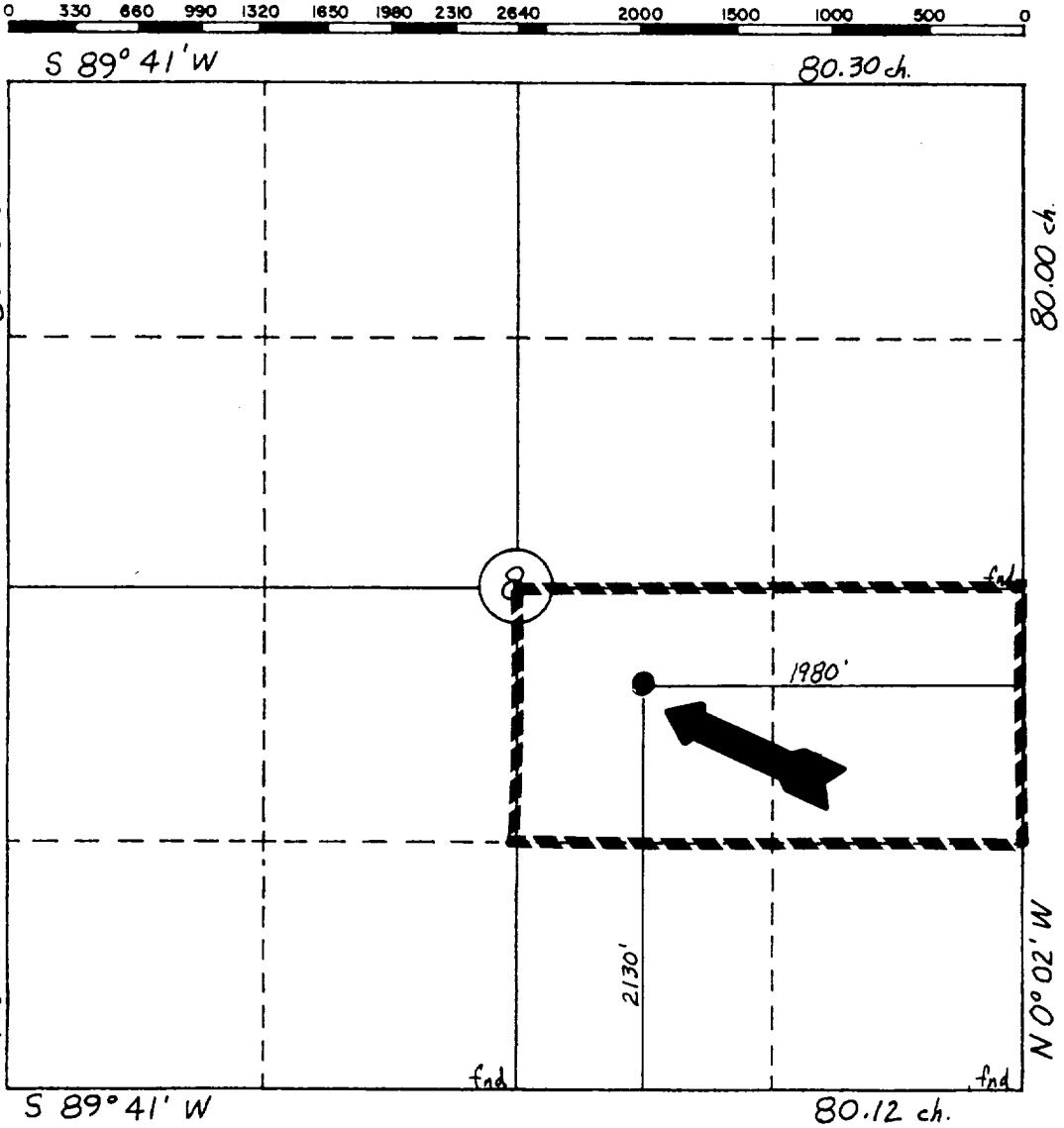
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest 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 neccessary. _____

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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature
DONNA WILLIAMS
Printed Name
PRODUCTION ASSISTANT
Position
SOUTHLAND ROYALTY COMPANY
Company
6/10/93
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

5-18-93
Date Surveyed
WILLIAM E. MAHNKE II
Signature & Seal of Professional Surveyor
WILLIAM E. MAHNKE II NEW MEXICO #8466 REGISTERED PROFESSIONAL LAND SURVEYOR
Certificate No. 8466

OPERATORS NAME:	**Southland Royalty Company**
LEASE NAME AND WELL NO.:	**West Corbin Federal #31**
LOCATION:	**Sec. 8, T18S, R33E, J, 2130' FSL & 1980' FEL**
FIELD NAME:	**South Corbin Wolfcamp**
COUNTY:	**Lea County, NM**
LEASE NUMBER:	**NM-0997**

The following information is to supplement BLM form 3160-3 Application for permit to deepen in accordance with Onshore Oil and Gas Order No. 1:

9 - POINT DRILLING PLAN

1. Name and estimated tops of important geologic formation/marker horizons.

Queen	4200'	1st Bone Spring	8290'	Lower Leonard	10,120'
Penrose	4530'	2nd Bone Spring Dolomite	8590'	Upper Wolfcamp	10,785'
San Andres	4790'	2nd Bone Spring Sand	9000'	Middle Wolffcamp	11,075'
Bone Spring	6690'	3rd Bone Spring Sand	9690'		

2. Estimated depths at which the top and bottom of formations potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals are expected to be encountered and the operator's plans for protecting such resources.

   1st Bone Spring Sand - Oil - will be behind pipe and protected with adequate cement.
   Wolfcamp TD - Oil - will be perforated and tested.

3. The operator's minimum specifications for Blowout Preventer (BOP) and related equipment to be used and schematic diagrams thereof showing sizes, pressure ratings, and the testing procedures and testing frequency. BOP and BOP - related equipment (BOPE) schematics shall include schematics of choke manifold equipment. Accumulator systems and remote controls shall be utilized.

   - 13 5/8" casing installation: 13 5/8" - 1.5 M annular BOP tested to 750 psi for 30 min. before drilling out 13 3/8" casing shoe.

   - 8 5/8" casing installation: 10" 3 M BOP stack to be installed and tested by an independent tester to 3000 psi before drilling the 8 5/8" casing shoe. The BOP stack is to consist of an annular BOP, a blind ram BOP, and one pipe ram BOP.

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

    - All casing will be new.
    - Surf: run 13 3/8," 48#, H-40, STC csg. to ± 400', cmt to surf.
    - Int: Run 8 5/8", 28#, K-55, LTC csg. to ±2900', cmt to surf.
    - Prod: run 5½", 17# K-55 & N-80, LTC csg, cmt back to intermediate csg in 2 stages w/stage tool @ ± 8000'.

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

    a. 13 5/8" csg: Cmt w/425 sxs. Cl "C" + 2% $CaCl^2$ +0.25 pps Celloflake. Cir. to surf.

    b. 8 5/8" csg: Cmt w/1000 sxs. Lite "C" cmt. w/15# salt. Also tail-in w/200 sxs Cl "C" w/2% $CaCl^2$. Cir. to surf. A fluid caliper will be run prior to setting 8 5/8" pipe to determine exact cmt. vols. req.

    c. 5½" csg.: Cmt one stage w/± 800 sxs Cl "H". Cmt. 2nd stage w/1200 sxs Lite and 100 sxs Cl "H" to bring TOC @ 2700' w/stage tool @ ± 8000'.

6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the following specific information:

    (a.) Length and location of blooie line, including the automatic igniter or continuous pilot light.

    Not applicable

    (b.) Location of compressor equipment, including safety devices, and the distance from the wellbore.

    Not Applicable

(c.) Schematics showing dedustor equipment and rotating head.

Not Applicable

(d.) Amounts, types, and characteristics of stand-by mud and associated circulating equipment.

Not Applicable

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

   a. CNL-LDT-CAL/GR TD-5000' (GR/CNL to surf.)

   b. GR-DLL-MSFL TD-5000'

   c. BHC SONIC - Minimum 2000'

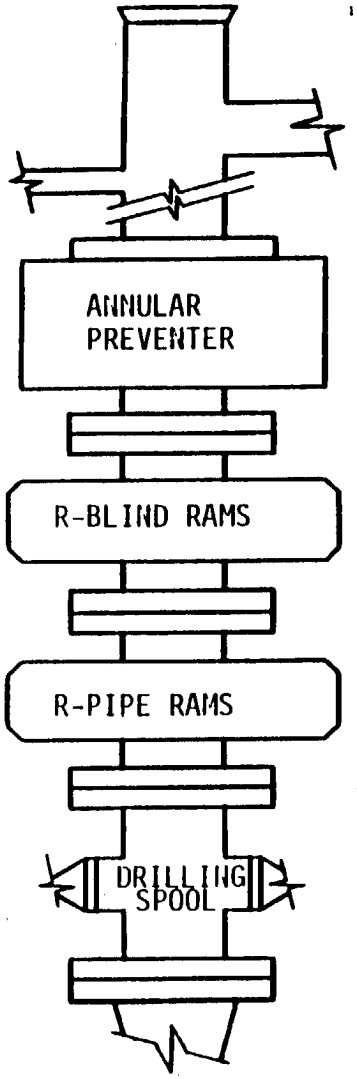
8. The expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of Onshore Oil and Gas Order No. 6.

   No abnormal pressures are anticipated. Bottom hole pressures @ TD expected to be 4000 psi. Bottom hole temp. 167° F. No hydrogen sulfide expected in known drilling area. No crooked hole or abnormal deviation problems.

9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

   Anticipated spud date is 7-12-93. Anticipated drilling time expected to be 26 days from surface to TD.

BLOWOUT PREVENTION EQUIPMENT
10" 900s ALL FLANGED EQUIPMENT
5,000# WORKING PRESSURE - 10,000# TEST



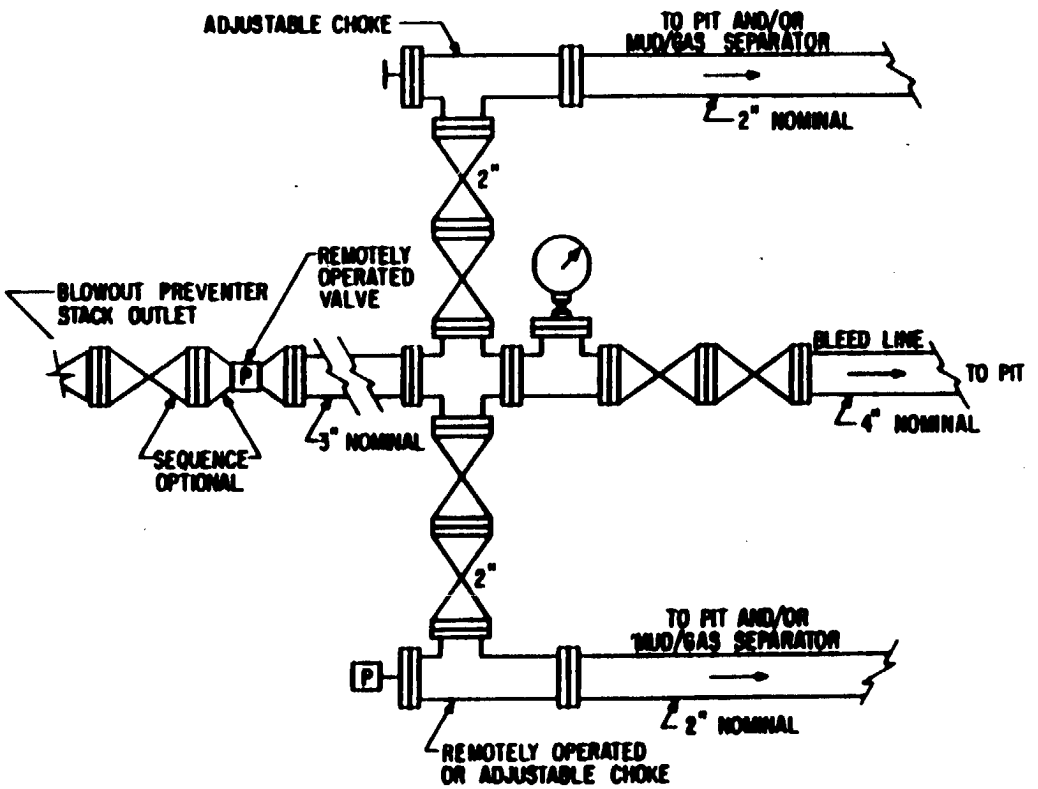


FIG. 3.A.2

TYPICAL CHOKE MANIFOLD ASSEMBLY FOR 5M RATED WORKING PRESSURE SERVICE — SURFACE INSTALLATION

ATTACHMENT TO FORM C-101