Form 3160-3 (July 1989) (formerly 9-331C)

ONTACT RE INCOMPACT OFFICE FOR NU LER OFFICE FOR

reverse side)

Modified Form No. NM060-3160-2

DEPARTMENT OF THE INTERIOR

5. LEASE DESIGNATION AND SERIAL NO.

| | | BUREAU OF LAND N | AANIACEMENT | ·U | | 0. 22/02 | | | |
|---|---|--|------------------------|-----------------------------------|--------------------------------|----------------------------------|------------------------|--|--|
| | • | | | | | | -04780 | | |
| APPLICA | TION FOR | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME | | | | | | | |
| TYPE OF WORK | DDUL [7] | 7. UNIT AGREEMENT NAME | | | | | | | |
| TYPE OF WELL | DRILL 🗵 | DEEI | | | | | | | |
| | GAS WELL | OTHER | PLE | 8. FARM OR LEASE NAME | | | | | |
| OIL K GAS OTHER SINGLE CONE CONE NAME OF OPERATOR SINGLE CONE MULTIPLE CONE A. AREA CODE & PHONE NO. | | | | | | | Comanche Federal | | |
| Southland I | Royalty Compa | ıny √ | | 915-686-56 | 00 | 9. WELL NO. | | | |
| ADDRESS OF OPER | | 10. FIELD AND POOL, OR WILDCAT | | | | | | | |
| | r., Midland, T | FN | Shugart (Delaware) | | | | | | |
| LOCATION OF WI At surface | ELL (Report location | clearly and in accordance | ce with any State requ | illements. Me APIA | | 11. SEC., T., R., AND SURVEY | | | |
| 990' FSL & | | \d[. |) | MAR 5 | 1991 | AND SURVEY | OR AREA | | |
| At proposed pro | od. zone | Avr. o | , | MICH C | 10.71 | Sec. 1 | 12. T18 | S, R31E | |
| DISTANCE IN MI | ES AND DIRECTION | FROM NEAREST TOWN OR | POST OFFICE* | O. C. | | 12. COUNTY OR | | 13. STATE | |
| | theast of Loc | | | ARTESIA, OFFIC | | Eddy | | NM | |
| DISTANCE FROM LOCATION TO NE | PROPOSED* | | 16. NO. OF | ACRES IN LEASE | | ACRES ASSIGNED S WELL | ***************** | | |
| PROPERTY OR L | AREST EASE LINE, FT. drig, unit line, if a | 990' | | 160 | | | 40 | | |
| | | | 19. PROPOSE | | | OTARY OR CABLE TOOLS | | | |
| TO NEAREST WE | PROPOSED LOCATION LL, DRILLING, COMP , ON THIS LEASE, F | LETED, T. 1350' | | 6100' | 100' | | tary | | |
| | ow Whether DF, RT, | | . <u></u> | | <u> </u> | 22. APPROX. D | ATE WOR | WILL START * | |
| 3766' GR. | | | | | | 01 | April 1 | 991 | |
| | | PROPOSED | CASING AND CE | MENTING PROGR | RAM | | | | |
| OLE SIZE CASING SIZE WEIGHT/FOOT GRADE | | | | THREAD TYPE | SETT | SETTING DEPTH QUANTITY OF CEME | | | |
| 12-1/4" | 8-5/8" | 24 | K-55 | STC | | 400' | 275 sx- <u>Circ</u> . | | |
| 7-7/8" | 5-1/2" | 15.5 | K-55 | STC | | 6100' | 1375 sx- <u>Circ</u> . | | |
| | | | <u> </u> | | | | 1 4 | Post ID- | |
| | | 1 | | 1 | 1 | | ' <i>I</i> | Z-15-9 | |
| 1 12-1/4" h | ole to 400' & | set 8-5/8" csg. | Cmt w/275 sx | circulate. | | | | 1-12 | |
| II /-//8" no | ne to 6100 a : 0–400'. fre | set 5-3/6 csg. set 5-1/2" csg. sh water gel & limexpected. | ne; 400'-6100', | salt water w/ | MW 9.8 | -10.2. No al | bnorma | 1 9/100 D | |
| essures or | temperatures | expected. | | | : | - 4 - illino - 6 | Stack t | " consist | |
| P PROGRAM | : 10"-3M BOP | stack to be insta OP, and one pipe | ailed on 8-5/8" | and left for re | emainder nd inden | or arming. S endent teste | er after | setting | |
| annular BO 8-5/8" cs | P, pling ram B | op, and one pipe | iain bor. Test | DOF 3 USING A | ~ · · · · | | : | • | |
| ; 0-3/6 0 | yg. | (| 08 CEN 15 11 | | . * | | | | |
| | | Į. | EQUITABLE TH | _ i | | | | | |
| | | VAL SUBJECT TO: | EASE WHICH | WOUND BEEN | ME THO | 13.27 Litt 14 | <u></u> | | |
| | APPRO\ | VAT SARIERI IN (| CONDUCT OPER | RATIONS THE | RECN. | 20 : M | <u>-</u> ₩ | | |
| | GENER | AL REQUIREMENTS | (M) | | | en e p ari i | . | æ | |
| | SPECIA | L STIPULATIONS | | | | | | m | |
| | ATTAC | HED - | | | | | - | רוו | |
| | | | | | | | . h | < | |
| BOVE SPACE DES | CRIBE PROPOSED PR | OGRAM: If proposal is to onally, give pertinent data | deepen or plug back, | give data on preser | nt productive and true vert | zone and proposical depths. Give | ed new p | roductiv er r one. prevente r p rogra | |
| oposal is to dri Ny. | n or deepen direction | many, give permient data | | | | - | | | |
| | | \cap | | | | 2 57. | . 9 | | |
| +20 | JE B | LARL DUL | TITLE Sr. S | Staff Env./Reg | . Special | ist DATE _ | 21 Jar | nuary 1991 | |
| SIGNED - | | | | | | | | | |
| his space for F | ederal or State offic | e use) | | | | | | | |
| PERMIT NO | | | APP | PROVAL DATE | | | | | |
| | Orio Money in | ini. Kanatan baran baran salah | AR | ea managen Gebeur berunde is e | | | 3.0 | 1-91 | |
| APPROVED BY | | | TITLECA | (RLS#A | | DATE | | <u> </u> | |
| | APPROVAL, IF ANY: | | | | | | | | |

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I P.O. Box 1980, Hobbs, NM 88240 DISTRICT II P.O. Drawer DD, Artesia, NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | Lease | iter boundaries of th | | | Well No. |
|-------------------|-----------------------|-------------------------------|-----------------------|---------------|--|---------------------------|--|---|
| perator | COUTH AND | DOVALTY CO | MD /\ N\V | | COMANCHE F | FEDERAL | | 2 |
| na Letter | Section | ROYALTY CO | PIPANT | Range | | | County | |
| UN Perret | 2 | lownamp | 8-SOUTH | 1 | 31-EAST | NMPM : | | EDDY |
| ctual Footage Loc | | | | | | | | |
| 390 | | SOUTH | line and | | 1980 | feet from the | e EAS | |
| round level Elev. | feet from the Prod | ucing Formation | 1100 8100 | Pool | | | | Dedicated Acreage: |
| 3766′ | | DELAWARE | | | SHUGART | | | 40 Acres |
| 1. Qutlin | e the acreage dedi | cated to the subject | well by colored pe | acil or hachu | re marks on the plat b | elow. | | |
| 3. If mor | re than one lease o | f different ownershing, etc.? | ip is dedicated to th | e well, have | ownership thereof (be the interest of all own dation | ers been consolid | | |
| | - · f | | | | | | | |
| No allow | vable will be assign | ned to the well unti | all interests have | ocen consolid | ated (by communitiza | tion, unitization, | forced-pool | ing, or otherwise) |
| or until a | a non-standard unit | , eliminating such | nterest, has been a | proved by th | e Division. | | | |
| | | | | | | Sign RC Pro Sign Po Me Co | I hereb mained here is of my bod pature obert L inted Name r. Stat suton eridiar impany lanuary ute | TOR CERTIFICATION TO CERTIFY that the informative in true and complete to invited and belief. Bradshaw Ff Env/Reg Spec. 1011 Inc. 21, 1991 |
| | | | | о пенения | | or ac sn cc | n this platectual surve upervison, prrect to elief | CTOBER 17: 309 |
| | | | म् माम्यायम् - | 990' | 1980' | | Certificate N | BEZNER NO. 7920 |

SOUTHLAND ROYALTY COMPANY (Operated by MERIDIAN OIL INC.)

Comanche Federal No. 2 990' FSL & 1980' FEL Sec. 12, T-18-S, R-31-E Eddy County, New Mexico LC-047800(a)

To supplement USGC Form 3160-3 Application to Drill the following additional information is submitted concerning questions on Page 5 of NTL-6:

- 1. See Form 3160-3
- 2. See Form 3160-3
- 3. The geological name of surface formation is: Ochoa
- 4. See Form 3160-3
- 5. See Form 3160-3
- 6. The estimated tops of important geological markers are:

 Redbeds, Base
 900
 Queen
 3,550'

 Delaware
 4,450'
 San Andres
 4,090'

7. The estimated depths at which anticipated water, oil, gas, and mineral bearing strata are as follows:

San Andres 4,090' - Oil Delaware 4,450' - Oil Possible Water Flow @ 3,550'

- 8. See Form 3160-3. All casing will be new.
- 9. See Form 3160-3 for depths of strings. Cement volumes and additions as follows:
 - a. 8 5/8" csg: Cement w/275 sx Cl "C" cmt + 2% CaCl₂ + ¼#/sx Flocele. Circulate.
 - b. 5 1/8" csg: Cement w/1100 sx C1 "C" Lite + 9 pps salt + 1/4#sx Flocele and tail in w/275 sx C1"C" plus 5 pps salt + 0.5% Halad 9. Circulate.
- 10. The pressure control diagram is attached to Form 3160-3. The following additional information is as follows:

8 5/8" casing installation: 10" - 3M 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 to consist of an annular BOP, blind ram BOP, and one pipe ram BOP.

Supplement to USGC Form 3160-3 Comanche Federal No. 2 page two

- 11. See Form 3160-3
- 12. A. DST Program: None
 - B. Core: None
 - C. Mud Logging: 6100' to TD, two-man unit
 - D. Wire Line Logs:

The following suite of logs will be run in both of the listed intervals:

CNL/LDT/CAL/GR TD - SCP (GR/CNL to surface)
DDL/MSFL/CAL/GR TD - SCP

- 13. No abnormal pressures are anticipated. Bottom hole pressures at TD expected to be 2000 psi. Bottom hole temperature 110° F. No hydrogen sulfide expected in this known drilling area. No crooked hole or abnormal deviation problems.
- 14. Anticipated starting date to spud on or about 04-01-91. Anticipated drilling time expected to be 10 days from surface to TD.

SURFACE USE PLAN

SOUTHLAND ROYALTY COMPANY (Operated by Meridian Oil Inc.)

Comanche Federal No. 2 990' FSL & 1980' FEL Sec. 12, T-18-S, R-31-E Eddy County, New Mexico LC-047800(a)

This plan is submitted with Application to Drill on above described well. The minerals are federal and the surface is leased for grazing (See below for surface lessee). The purpose of this plan is to describe the location, proposed construction activities and operations plans, magnitude of necessary surface disturbance and procedures to be followed in rehabilitating the surface after completion of the operation so that complete appraisal can be made of the environmental effects associated with the operations.

1. Existing Roads:

Exhibit "A" is a portion of a U.S.G.S. topographic map showing the location of the proposed well as staked.

Directions to the well are as follows: From the junction of US 82 and Hwy. 31, 6 miles east of Loco Hills, go south 4.0 miles on Hwy. 31, thence SE 1.1 miles on a county road, thence east 2.1 miles on a lease road to the SW corner of Section 12.

2. Planned Access Road:

An existing trail road extends thru the proposed well site. This road will be improved as is necessary to comply with BLM standards.

3. Location of Existing Wells in Area:

See Exhibit "B"

4. Location of Proposed Facilities:

Location of proposed well site and tank battery is shown on Exhibit "C". The battery will be located on proposed well pad; no additional surface disturbance will be necessary.

5. Water Supply:

No available surface or sub-surface fresh water exists in the vicinity of the proposed well. Drilling water will be transported or pumped to the drill site from the nearest commercial source. Surface Use Plan Comanche Federal No. 2 page two

6. Source of Construction Material:

Caliche for surfacing access road and pad will be obtained from an existing pit located in the SE/4 SE/4 of Sec. 11, or other BLM approved site.

7. <u>Handling Waste Disposal</u>:

- a. Drill cuttings disposed into drilling pits.
- b. Drill fluids allowed to evaporate in drill pits until pits dry.

c. Produced water during testing - drill pits.

- d. Produced oil during testing storage tank until sold.
- e. Current laws and regulations pertaining to disposal of human waste will be observed.

f. Reserve pit will be plastic lined.

- g. Waste paper, garbage, and junk will be disposed of into a special container on location. All waste material will be regularly removed to an approved landfill.
- h. All trash and debris will be buried or removed from well site within 30 days after drilling and/or completion operations are finished.

8. Ancillary Facilities:

None

9. Plans for Restoration of Surface:

- a. After completion of drilling and/or completion of operations, all equipment and other material not needed for operations will be removed. Pits will be filled and locations cleaned of trash and junk to leave well in as aesthetically pleasing a condition as possible.
- b. Any unguarded pits containing fluids will be fenced until filled.
- c. After abandonment of well, surface restoration will be in accordance with the Bureau of Land Management Surface Requirements.

10. Topography and Soil:

New Mexico Archaeological Services, Inc. report by Dr. J. Loring Haskell will be submitted when ready.

11. Land Use:

Grazing and hunting - Federal

Surface Lessee -NOT KNOWN Surface Use Plan Comanche Federal No. 2 page three

12. Surface Ownership:

Bureau of Land Management (Federal)

13. Operators Representatives:

Field representatives (Responsible for compliance with approved surface use and operations plan):

Meridian Oil Inc. P. O. Box 837 Hobbs, New Mexico 88240 Office: 505-393-5844

Mr. Johnny Ellis, Drilling Foreman, or a consultant Hobbs, New Mexico Home: 505-393-8150

Mr. Bill Dawson, Drilling Superintendent Midland, Texas Office: 915-686-5600 Home: 915-682-9037

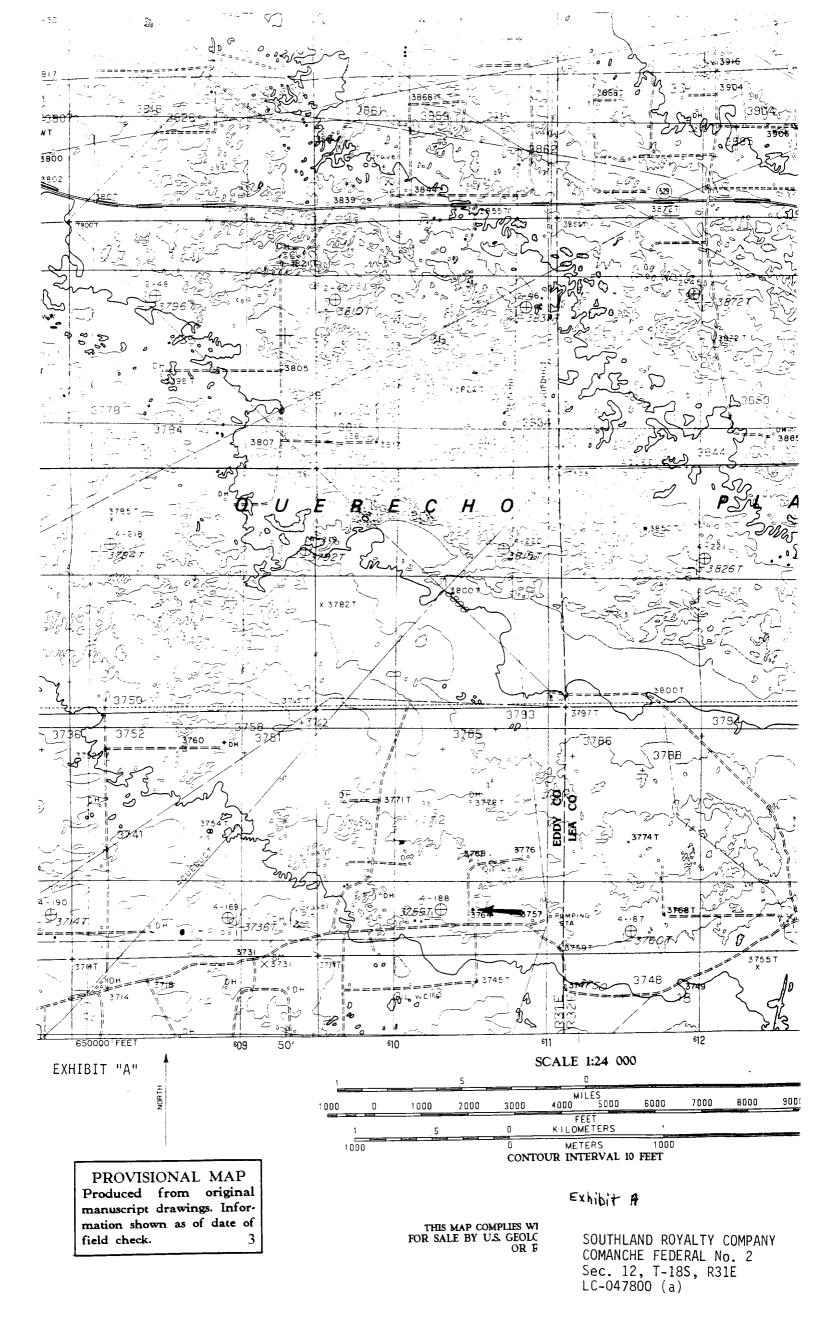
14. Certification:

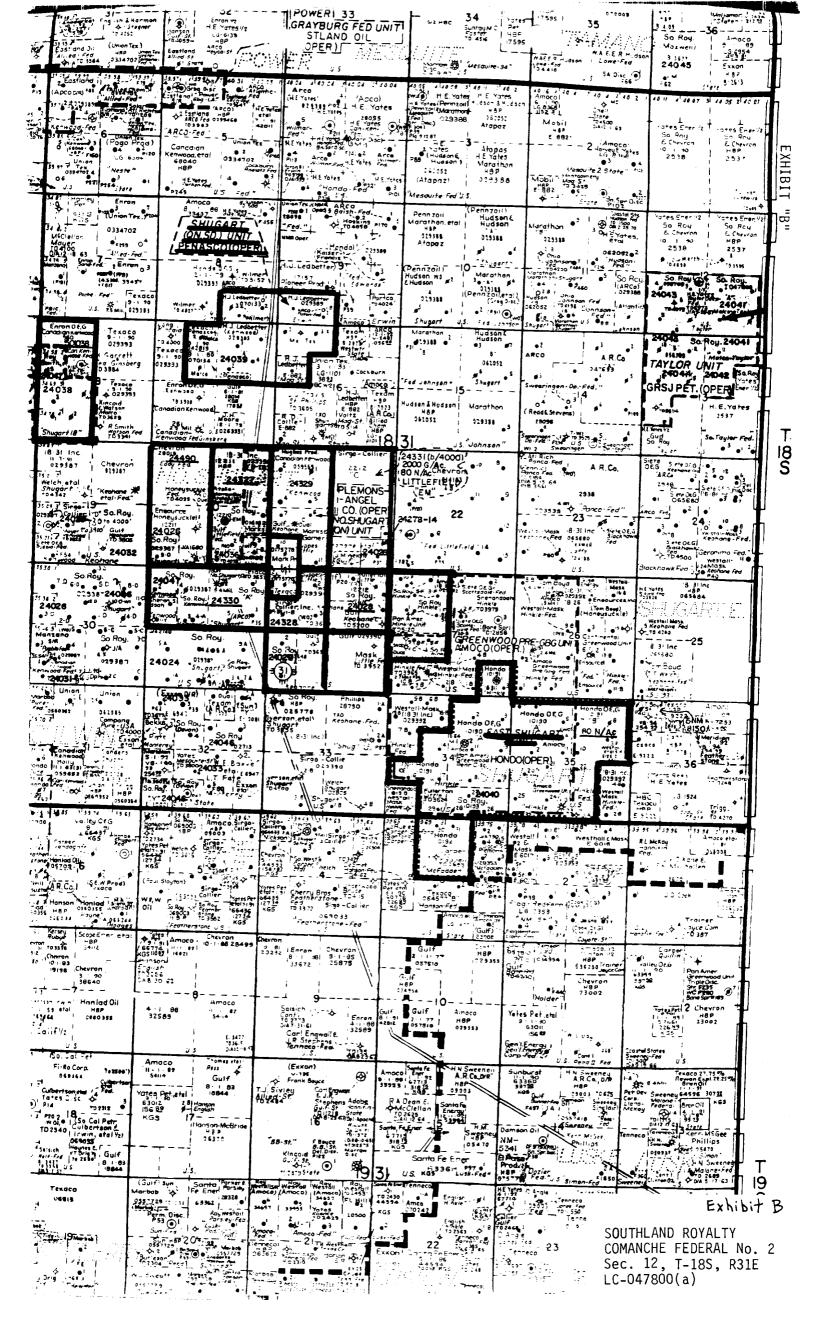
I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route; that I am familiar with conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and sub-contractors in uniformity with this plan and the terms and conditions under which it is approved.

Date: 22 JAN91 S.J. Van Howe

Drilling Engineer Meridian Oil Inc.

RLB/bn





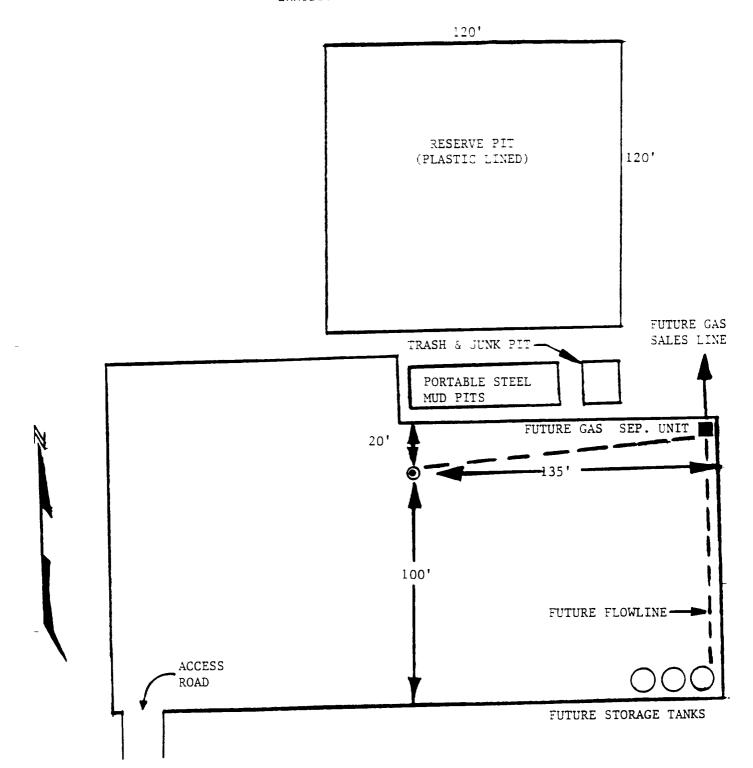
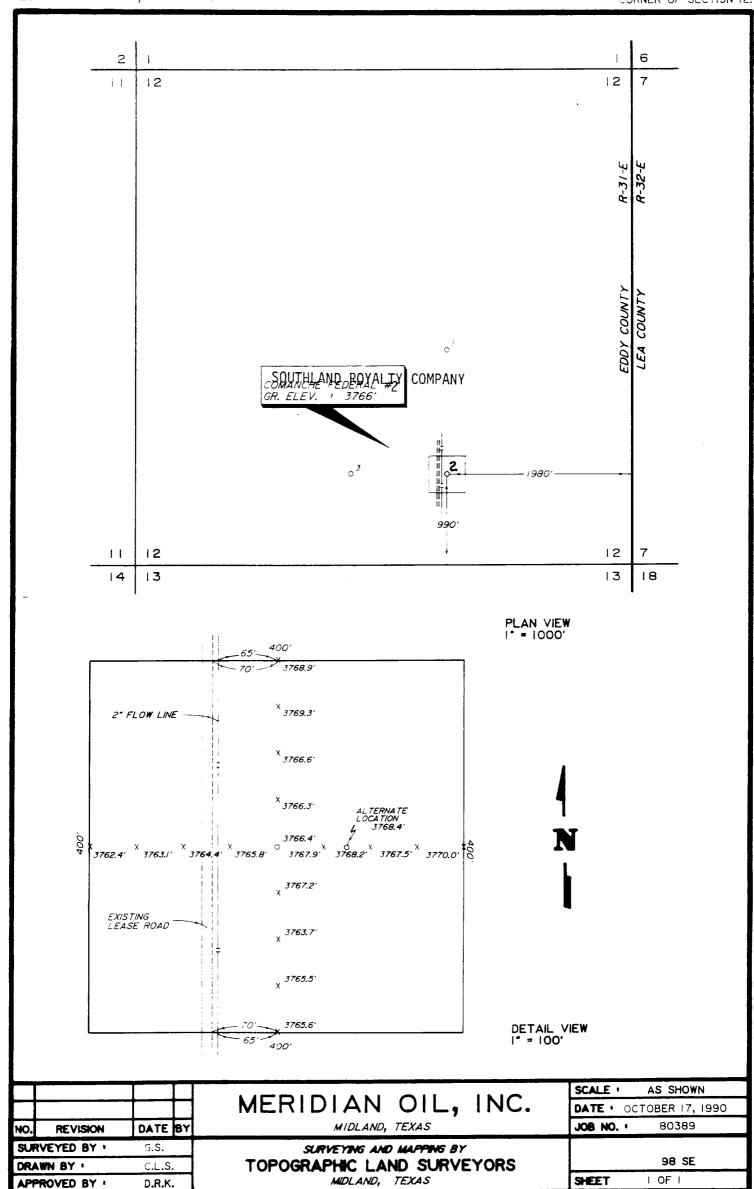


Exhibit C

SOUTHLAND ROYALTY COMPANY
COMANCHE FEDERAL No. 2
Sec. 12, T-18S, R31E
LC-047800 (a)

FROM THE JCT. OF U.S. 82 & HWY 31, 6 MILES EAST OF LOCO HILLS, GO SOUTH 4.0 MILES ON HWY 31, THENCE SOUTHEAST I.I MILES ON COUNTY ROAD, THENCE EAST 2.I MILES ON LEASE ROAD TO THE SOUTHWEST CORNER OF SECTION 12.



BLOW OUT PREVENTION EQUIPMENT
10" 900s ALL FLANGED CONNECTIONS
3,000% NORKING PRESSURE - 6,000% TEST TO PIT TO PIT TO PIT ADJUSTABLE CHOKE C2" POSITIVE CHOKE 4" VALVE 3" VALVE ORILLING 3" VALVE R-BLIND RAMS R-PIPE RAMS > TOOUS