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

Form 3160-3 (July 1992)

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM 55953

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

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

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

8. FARM OR LEASE NAME: JACK TANK 7 FEDERAL

2. NAME OF OPERATOR: MERIDIAN OIL INC.

9. WELL NO.: # 2

3. ADDRESS AND TELEPHONE NO.: P.O. BOX 51810, MIDLAND, TX 79710 915-688-6943

10. FIELD AND POOL, OR WILDCAT: ~~SOUTH CAND DUNE~~ BONE SP

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330' FNL & 660' FEL
At proposed prod. zone: Unit A

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 7, T24S, R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 32 1/2 MILES WEST OF JAL

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): 330'

16. NO. OF ACRES IN LEASE: 1080

17. NO OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1650'

19. PROPOSED DEPTH: 10,050

20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show Whether DF, RT, GR, ETC.): 3565'

Carlsbad Controlled Water Basin

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 |
|---|---|---|---|---|
| 17 1/2" | 13 3/8" H-40 | 48# | 600' | 550 SXS CIRCULATE |
| 12 1/4" | 8 5/8" K-55 | 32#/28# | 4500' | 1800 SXS } SEE |
| 7 7/8" | 5 1/2" K-55/N-80 | 17# | 10050' | 950 SXS } STIPS. |

NOT IN DESIGNATED HYDROGEN SULFIDE AREA AS PER JOHN SIMITZ/ROSWELL - BLM ON MARCH 3, 1994
NO PRAIRIE CHICKEN RESTRICTIONS.
NOT IN DESIGNATED POTASH AREA

BOP: 13 5/8" 1.5M ANNULAR BOP W/ROTATING HEAD TO BE INSTALLED ON 13 3/8" CSG. TEST TO 750 PSI BEFORE DRILLING THE 13 3/8" CASING SHOE.
11" - 3M BOP STACK TO BE INSTALLED ON THE 8 5/8" CASING. THE BOP STACK WILL CONSIST OF ONE BLIND RAM BOP, ONE PIPE RAM BOP, AND A ROTATING HEAD. TESTED TO 3000 PSI BEFORE DRILLING THE 8 5/8" CASING SHOE.

OPER. OGRID NO. 14538
PROPERTY NO. 14246
POOL CODE 96037
EFF. DATE 4-18-94
API NO. 30-025-32482

**Approval Subject to General Requirements and Special Stipulations Attached**

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 _____ TITLE PRODUCTION ASSISTANT DATE 3/15/94

(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:

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS TITLE AREA MANAGER DATE APR 8 1994

*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

Form C-102
Revised 1-1-89

# OIL CONSERVATION DIVISION

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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

| Operator | Lease | Well No. |
|---|---|---|
| MERIDIAN OIL INC. | JACK TANK 7 FEDERAL | 2 |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| A | 7 | 24 SOUTH | 32 EAST, NMPM | LEA |

Actual Footage Location of Well:
330 feet from the NORTH line and 660 feet from the EAST line

| Ground level Elev. | Producing Formation | Pool | Dedicated Acreage: |
|---|---|---|---|
| 3565 | Bone Spring | ~~South Sand Dunes~~ Wildcat | 40 Acres |

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

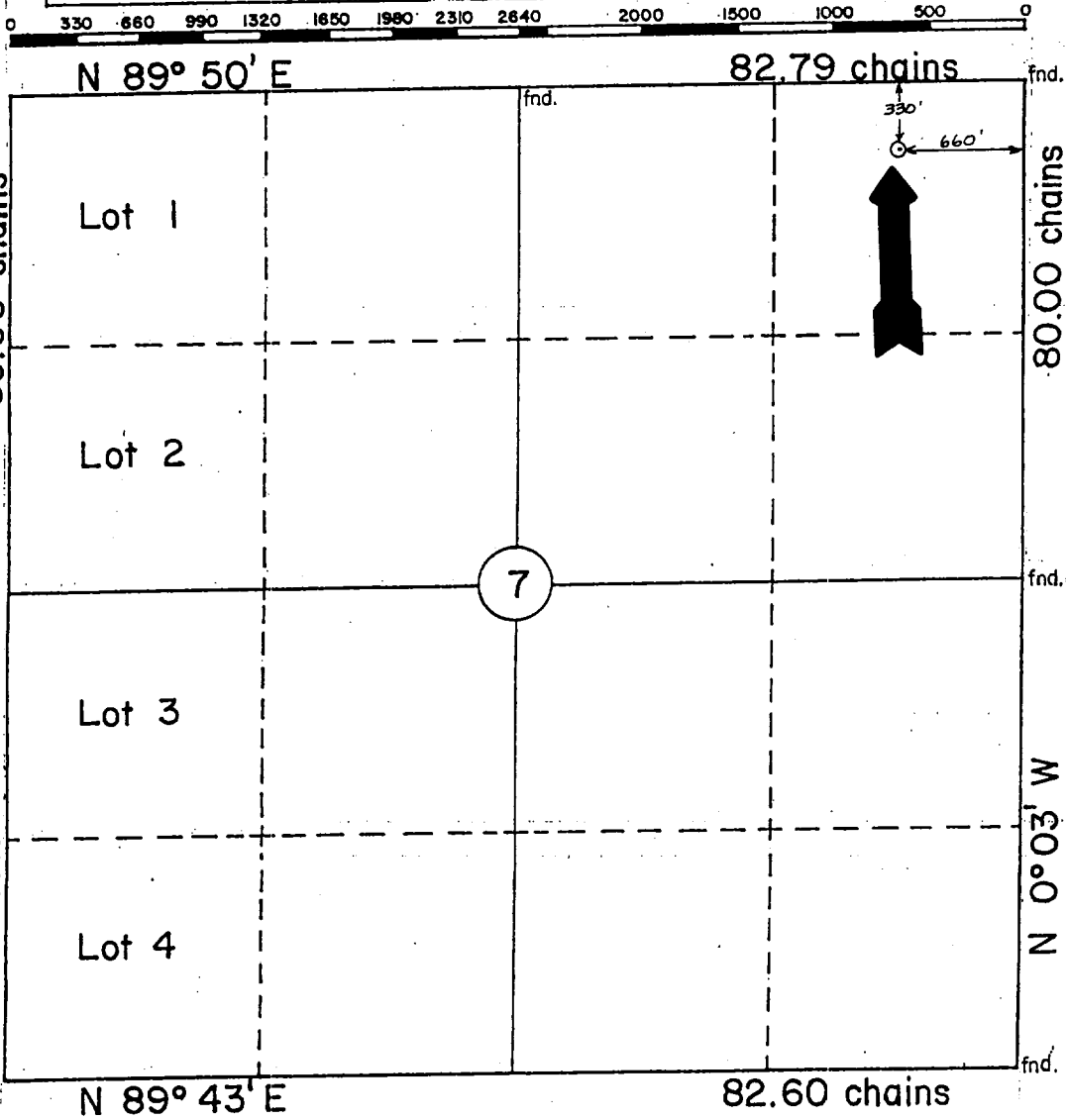
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 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 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

Meridian Oil Inc.

Company

3/14/94

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.*

3-3-94

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:** | **Meridian Oil Inc.** |
| **LEASE NAME AND WELL NO.:** | **Jack Tank 7 Federal # 2** |
| **LOCATION:** | **330' FNL & 660' FEL, Sec. 7, T24S, R32E** |
| **FIELD NAME:** | **South Sand Dunes Bone Spring** |
| **COUNTY:** | **Lea County, NM** |
| **LEASE NUMBER:** | **NM 55853** |

The following information is to supplement BLM form 3160-3 Application for permit to drill 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.

| FORMATION | DEPTH |
|---|---|
| Rustler | 800' |
| Salado | 1100' |
| Delaware | 4620 |
| Bone Spring | 8550 |

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.

| | |
|---|---|
| Bone Springs | 8550 - 10050 (Oil) |

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" 1.5M annular BOP w/rotating head to be installed on the 13 3/8" casing. Test to 750 psi before drilling the 13 3/8" casing shoe.

   11" - 3M BOP stack to be installed on the 8 5/8" csg. The BOP stack will consist of one blind ram BOP, one pipe ram BOP, and a rotating head. Tested to 3000 psi before drilling the 8 5/8" casing shoe.

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.

    - 17 1/2 hole, 13 3/8" H-40 48# STC csg set @ 600'
    - 12 1/4" hole, 8 5/8" K-55 28#/32# BTC csg set @ 4500' **

    7 7/8 hole, 5 1/2" K-55 & N-80 17# LTC csg set @ 10,050'

    ** SPECS: 8 5/8" 28# K-55 BTC
    ID = 8.017", DRIFT = 7.892", BURST = 3390 PSI, COLLAPSE = 1880 PSI, & TENSION = 437,000 LBS

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 3/8 csg: cmt w/350 sxs Class "C" + 4% gel & 2% CaCl2 tail w/200 sxs Class "C" + 2% CaCl2. Circ. to surface.

    b. 8 5/8" csg: cmt w/1500 sxs 'C' Lite, tail w/300 sxs 'C' + 2% CACl2

    c. 5 1/2" csg: cmt first stage w/450 sxs Class 'H' 50/50 Poz + 2% gel + .6 Halad-9 + 3 pps KCl + 1/4 pps Flocele. second stage: Cmt w/400 sxs Class 'H' Lite + .4% Halad-9 and tail w/100 sxs Class 'H'. Bring TOC to +/-4300'.

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:

    Mud Program:
    0-600' Fresh water/gel/lime system, MW 8.6 - 9.0
    600-4500' brine, MW 10.0 - 10.1
    4500-9850' fresh water MW 8.5-8.7
    9850-10050' fresh water/Drispac 8.6-8.9

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

    a. DST Program: None

    b. Core: None

    c. Mud Logging: Two-man unit 4000' to TD.

    d. Logs to be run: CNL-LDT/CAL/GR - TD-4500'
    DIL/GR: TD-ICP
    CNL/GR - 4500' - SURFACE

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 at TD expected to be 4300 psi. Bottom hole temperature 140° F. No Hydrogen Sulfide expected in this known drilling area.

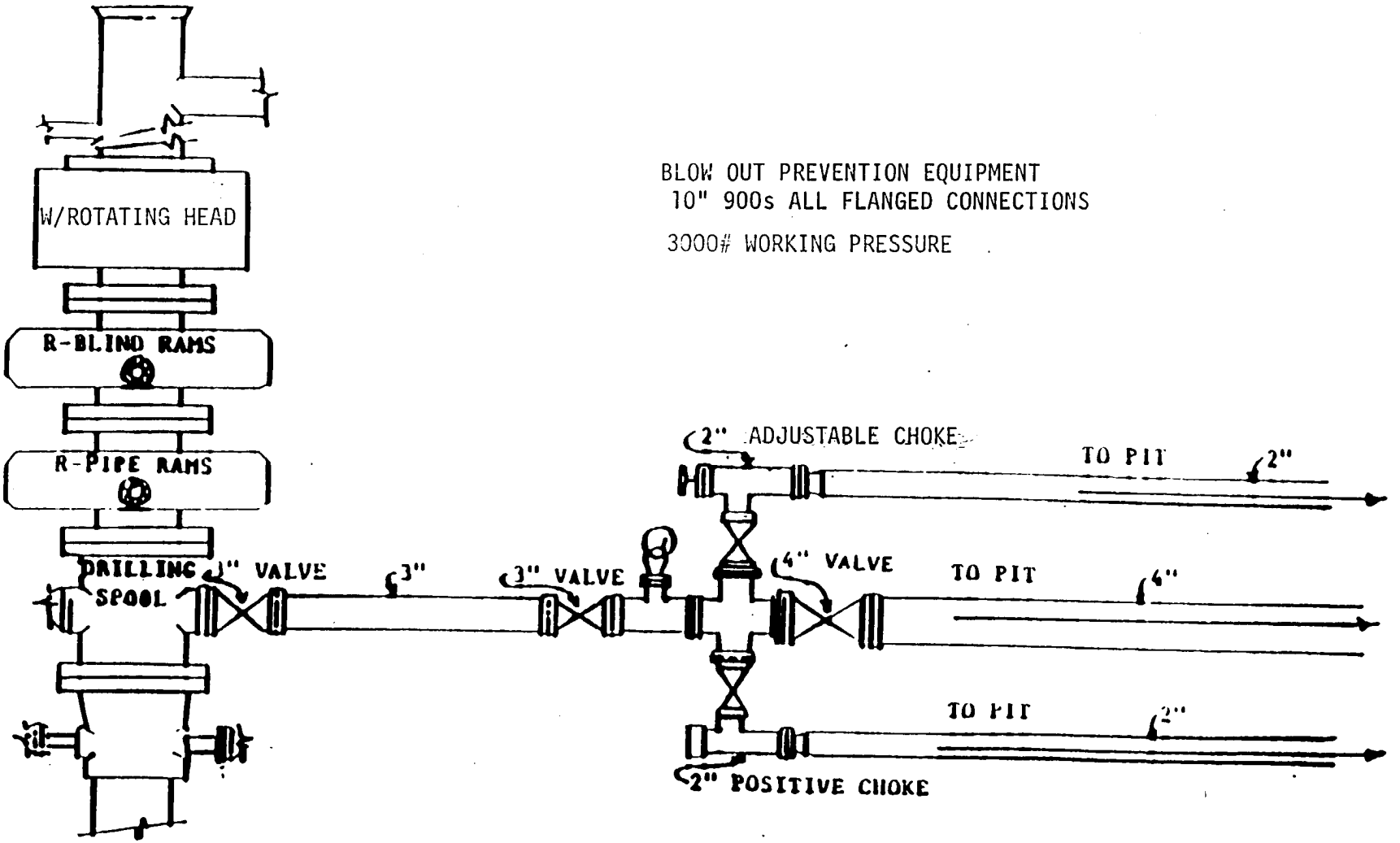
9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

    Anticipated drilling time expected to be 19 days from surface to TD.

DOUBLE RAM

BLOW OUT PREVENTION EQUIPMENT
10" 900s ALL FLANGED CONNECTIONS

3000# WORKING PRESSURE



12-2-94