

United States Department of the Interior



BUREAU OF LAND MANAGEMENT ROSWELL DISTRICT OFFICE P.O. BOX 1397 ROSWELL, NEW MEXICO 88201

Nm-54865 (Pt) 3160.2 (065)

RECEIVED

NOV 30 '88

O, C. D. ARTESIA, OFFICE

NOV 29 1988

Meridian Oil Inc. 21 Desta Drive Midland, Texas 79705

Gentlemen:

Your application for Permit to Drill well No. 2 Apache Federal in the SELNEL sec. 35, T. 19 S., R. 29 E., Eddy County, New Mexico, lease NM-54865, to a depth of 4,500 feet to test the Delaware formation in the oil-potash area, is hereby approved as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the Bureau of Land Management office checked on the enclosed special stipulation, in sufficient time for a representative to witness all cementing operations.

Sincerely,

Orig. Sgd. Francis R. Cherry, Jr.

Francis R. Cherry, Jr. District Manager

1 Enclosure

cc:
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Form 3160-3 (November 1983) (formerly 9-331C)

SUBMIT 1. RIPLICATE.

(Other instructions on reverse side)

30-0)5-26026 Form approved. Budget Bureau No. 1004-0136 Expires August 31, 1985

UNITED STATES DEPARTMENT OF THE INTERIOR

| | DUDELLO | | | | | 5. LEASE DESIGN | ASSES AND BERIAL NO. | |
|---|---------------------------|---------------------|---------------|-----------------------------------|------------|---|---|--|
| A B D 1 1 2 1 2 1 2 1 | BUREAU OF | - LAND MANA | GEME | YT. DEE, S DEE | 10 | NM-5486 | 5 | |
| _APPLICATION | N FOR PERMIT | TO DRILL, | DEEP | EN, OR PLUG I | BACK | 6. IF INDIAN, AL | LOTTES OR TRIBE NAME | |
| 1a. TYPE OF WORK | | | | | | | | |
| DKI b. TYPE OF WELL | ILL 🖾 | DEEPEN | | PLUG BA | CK 🗌 | 7. UNIT AGREEM | ENT NAME | |
| OIL VX GAS SINGLE FY MULTIPLE | | | | | | | | |
| WELL OTHER 2. NAME OF OPERATOR | | | | ZONE AA ZONE | | S. FARM OR LEASE NAME | | |
| Meridian Oil Inc. | | | | | | Apache Federal | | |
| 3. ADDRESS OF OPERATOR | | | | | | 9. WELL NO. | | |
| 21 Desta Driv | e Midland Tox | 79705 | | • | 0 | 2 | | |
| 21 Desta Drive, Midland, Texas 79705 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) | | | | | | 10. FIELD AND FOOL, OR WILDCAT Parkway (Delaware) | | |
| |)' FNL & 660' F | | | | ζ, | Parkway (| Delaware) | |
| At proposed prod. zon | | ы, sec. ээ, | , 1-1 | 9-3, K-29-E | Wh | 11. SEC., T., R., A AND SURVEY | (OR BLK. | |
| - Proposes pros. Son | 16 | | | | N | | | |
| 14. DISTANCE IN MILES | AND DIRECTION FROM NEA | REST TOWN OR POS | T OFFIC | E+ | | Sec. 35, | T-19-S, R-29-1 | |
| | hwest of Hobbs, | | | | | Eddy | N.M. | |
| 15. DISTANCE FROM PROPUSED* LOCATION TO NEAREST | | | | 16. NO. OF ACRES IN LEASE 17. NO. | | OF ACRES ASSIGNED | | |
| PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 660' | | | 40 | | TO TE | TO THIS WELL | | |
| 18. DISTANCE FROM PROP | | 19. PROPOSED DEPTH | | 40 20. ROTABI OR CABLE TOOLS | | | | |
| TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. | | NA | 4500 ' | | Rotary | | | |
| 21. ELEVATIONE (Show who | ther DF, RT, GR, etc.) | | <u>'</u> | | 1 100 | • | TE WORK WILL START | |
| 3339' GR | | | | | | 11-21 | | |
| 23. | | PROPOSED CASI | NG AND | CEMENTING PROGRA | | 1 | | |
| SIZE OF HOLE | | | | | <u> </u> | | | |
| 17 1/2" | 13 3/8" | WEIGHT PER F | 00T | SETTING DEPTH | 350 | QUANTITY OF | | |
| 12 1/4" | 8 5/8" | 48# | | 350' 3200' | | k., <u>Circulate</u> | | |
| 7 7/8" | 5 1/2" | 24 & 28# 15.5# | | 4500 | | 3000 sx., Circulate 500 sx. TOC @ Surface | | |
| , ,, , | 3 1/2 | 15.54 | | | | | | |
| Drill 17 1/2" | hole to 350'. | Set 13 3/8 | 3" (8 | or @ 350' Cmt w | 7/350 cv | c 1 !!e!! | Cima Duill | |
| 12 1/4" hole | to 3200'. Set 8 | 3 5/8" csg @ | 320 | O'. With stage | . collar | · 0 + 1600' | coment | |
| lst stage w/l | 000 sx C1 "C" v | n/2% CaC12. | Ceme | ent 2nd stage t | o circ | to surf w/ | 2000 ex C1 | |
| "C" Lite & ta | il in w/100 sx | C1 "C". Dr | :111 | to TD to test D | elaware | . If comm | ercial run | |
| 5 1/2" csg to | 4500'. Cmt w/ | sufficient | volu | me to bring abo | ve all | nrospectiv | erciar, run | |
| Est TOC @ sur | face. Perf & s | timulate De | lawa | re for producti | on. | prospectiv | e zones. | |
| MUD PROGRAM: | 0-350' spud mu | d; 350-3200 |)' br: | ine & sweeps: 3 | 200-TD | cut brine | & Drisnac | |
| MW 9-9.2, VIS | 32-36 (solids | must be les | s tha | an 5%). | | | - | |
| BOP PROGRAM: | 11"-3M stack t | o be instal | led o | on 8 5/8" & lef | t on fo | r remainde | r of drle. | |
| Stack to cons | ist of Double r | am type BOF | ? & c | noke manifold. | Will t | est to rat | ed working | |
| pressure w/in | dependent teste | r on initia | al NU | & prior to drl | g into | Delaware. | n | |
| | | | | | | - 동작 도 |) -{ | |
| | | | | POST ID NL LAPI 12-2-88 | - | | <u>`</u> ≈ | |
| | | | | NYTHAT | - | | ודו | |
| N ABOVE SPACE DESCRIBE | PROPOSED PROGRAM: If | proposal is to deep | en or D | | | | | |
| one. If proposal is to dreventer program, if any | TIME OF GEEDER GITECTIONS | my, give pertinent | data o | n subsurface locations an | d measured | and true vertical | uposea new productive Hepths. Give blowout | |
| | - | 77.00 | <u></u> | | | | <u></u> | |
| 1. | | | | | | | | |
| | 6 | / | _ | | | | = 0 | |
| | hy has | les TIT | O | perations Tech | III | | 6/19/88 | |
| 4. | hy Min | les TIT | LEO | perations Tech | III | PAPA | 6 /19/88 | |
| signed COC | hy Ris | Les_ TIT | · | oerations Tech | III | PAPE | 6/19/88 | |
| SIGNED (This space for Feder | hy hu | Les TIT | · | | III | PAPA | 6 /19/88 | |
| SIGNED (This space for Feder | | Les TIT | | | III | DATE | 6 /19/88 | |

Form C-162 Supersedes C-126 Cilective 14-65

. .W MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator Leaso Well No. MERIDIAN OIL COMPANY APACHE FEDERAL 2 Unit Letter Section Township Hange 35 19-SOUTH 29-EAST **EDDY** Actual Footage Lucation of Well: 1980 660 feet from the line cond EAST feet from the line Ground Level Elev: Producing Formation Dedicated Acreage: 3339' Delaware UNV'Parkway DELAWARE 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 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 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 Commis-MERIDIAN OIL INC. E. WHITE CERTIFICATION 61582 61582 I hereby certify that the information cono³ herein is true and complete to the 1980 Name SANTA FE ENER SANTA FE ENER **■**MERIDIAN OIL 67102 67102 INC. Operations Tech III 54865 Company Meridian Oil Inc Date 10/19/88 LINEHAND& STOLTENBERG | MERIDIAN OIL 24160 54865 I hernby certify that the well location and belief. NEW KGS UIS.

MERIDIAN OIL INC.

Apache Federal No. 2 1980' FNL & 660' FEL Sec. 35, T-19-S, R-29-E Eddy County, New Mexico NM-54865

To supplement USGS 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:

Rustler 350' Capitan Reef 1825' Yates 1570' Delaware Sand 3750'

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

Yates 1570' - 0il Delaware Sand 3750' - 0il

- 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. 13 3/8" csg: Cement w/350 sxs Lite "C" cmt. Circ to surface.
 - b. 8 5/8" csg: With stage collar @ \pm 1600', cement 1st stage w/1000 sx C1 "C" w/2% CaC12. Cement 2nd stage to circ to surface w/2000 sx C1"C" Lite & tail in w/100 sx C1 "C".
 - c. 5 1/2" csg: Cement w/±500 sx C1 "C". TOC @ Surface.

A caliper log will be run prior to setting 5 1/2" pipe to determine exact cement volumes required and a fluid caliper will be run prior to setting 8 5/8" casing to determine same.

10. The pressure control diagram is attached to Form 3160-3. The following additional information is as follows:

8 5/8" casing installation: 11"-3M BOP stack to be installed and tested by an independent tester to 3,000 psi before drilling the 8 5/8" casing shoe. The BOP stack to consist of a blind ram BOP and one pipe ram BOP.

- 11. See Form 3160-3.
- 12. A. DST Program: None
 - B. Core: None
 - C. Mud Logging: 3200 to TD, Two-man unit
 - D. Wire Line Logs:

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

DLL/MSFL/CNL/LDT/GR/Cal TD-3200' (GR/CNL to surf)

- 13. No abnormal pressures are anticipated. Bottom hole pressures at TD expected to be 2000 psi. Bottom hole temperature 138° F. No Hydrogen Sulfide expected in this know drilling area. No crooked hole or abnormal deviation problems.
- 14. Anticipated starting date to spud on or before 11-21-88. Anticipated drilling time expected to be 10 days from surface to TD.

C. Nokes 10/19/88

SURFACE USE PLAN

MERIDIAN OIL INC.

Apache Federal No. 2 1980' FNL & 660' FEL Sec. 35, T-19-S, R-29-E Eddy County, New Mexico NM-54865

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 USGS Topograph map showing the location of the proposed well as staked.

Directions to the well are as follows: Go 55 miles west of Hobbs on Hwy 62-180. Go 1.2 miles west of Junction 31 and 360. Turn right on Burton Flat Road or CR 238 and go north 7/10 mile on pavement. Turn north 5.4 miles. Turn right approximately 1.9. Road ends at Osage Federal #1. Go east 990' to Apache Federal #1 location. Turn north and go approximately 1320' to Apache Federal #2 location.

2. Planned Access Road:

- a. Temporary access road will be 12 feet wide and 1600 feet long. The center line of the proposed temporary road from the beginning to the well site has been staked and flagged with the stakes being visible from any one to the next.
- b. Surfacing Material: 6" of caliche, watered, compacted and graded.
- 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:

- a. 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.
- 6. Source of Construction Material:

Caliche for surfacing access road and pad will be obtained from existing pit located in the SW/4 NE/4 of Sec. 3, T-20-S, R-29-E. This pit has been cleared by by BLM.

7. Handling Waste Disposal:

- 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, junk disposed of into special trash container on location and hauled off upon completion of the well or as required. All waste material will be contained to prevent scattering by wind.
 - 8. All trash and debris will be removed from well site within 30 days after drilling and/or completion operations are finished.
 - 9. Ancillary Facilities:

None

- 10. 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.
- 11. Topography and Soil:

New Mexico Archaeological Services, Inc. Report by Dr. J. Loring Haskell will be sent when it is received in this office.

12. Land Use:

Grazing and hunting - Federal

Surface Lessee - Snyder Ranch, Inc. P. O. Box 726 Lovington, New Mexico 88260

13. <u>Surface Ownership:</u>

Bureau of Land Management (Federal)

14. Operators Representatives:

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

Meridian Oil Inc. 416 E. Main Artesia, New Mexico Office: 505/748-1321

Mr. Wayne Grubbs, Drilling Foreman

Artesia, New Mexico Home: 505/746-6057

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

15. Certification:

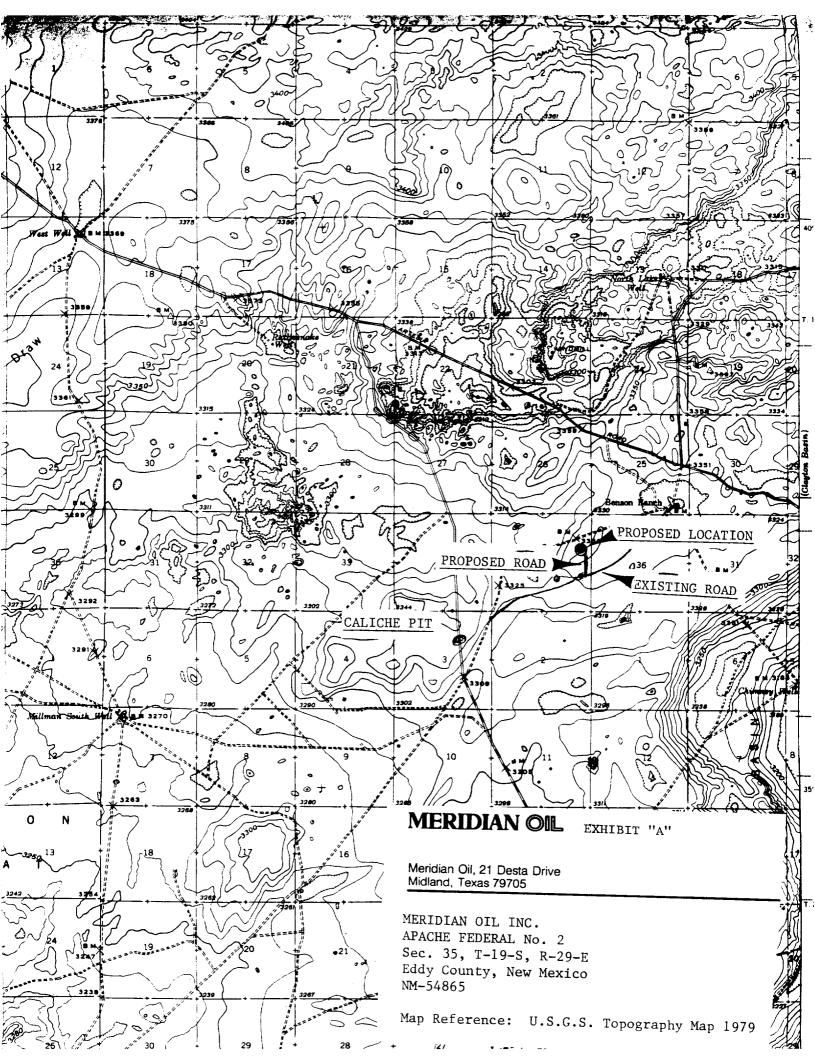
I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route; that I am familiar with conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations 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.

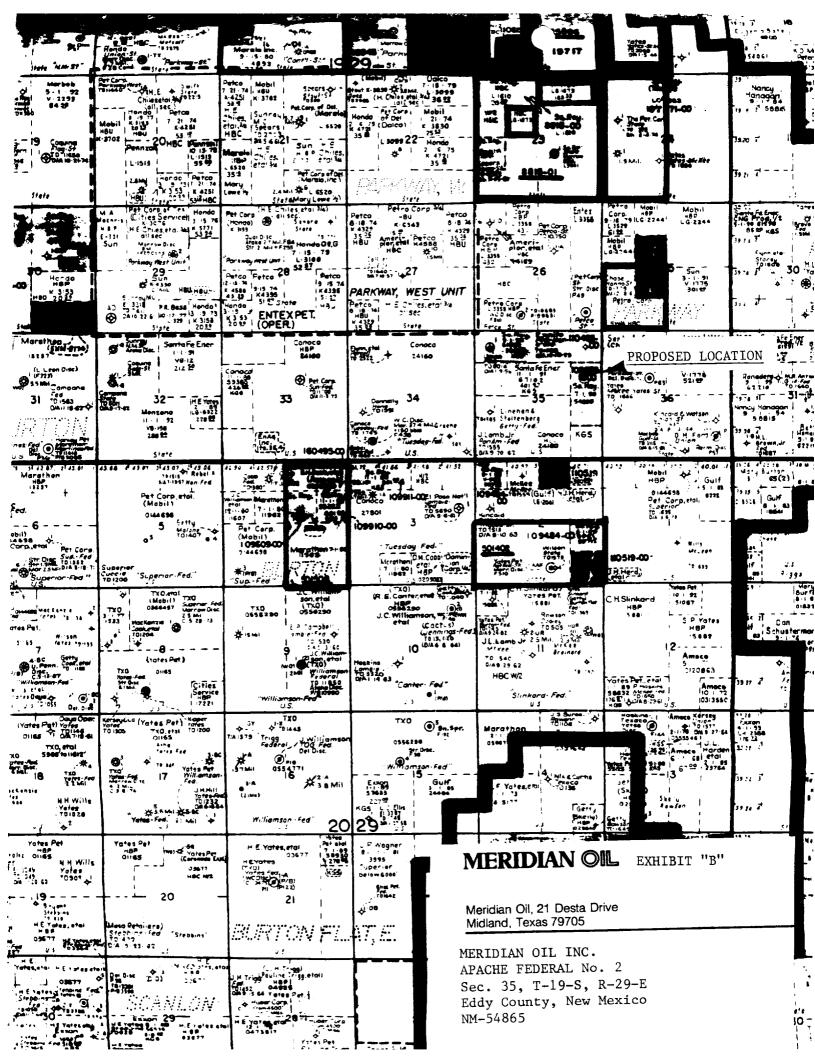
Date: 10/20/88

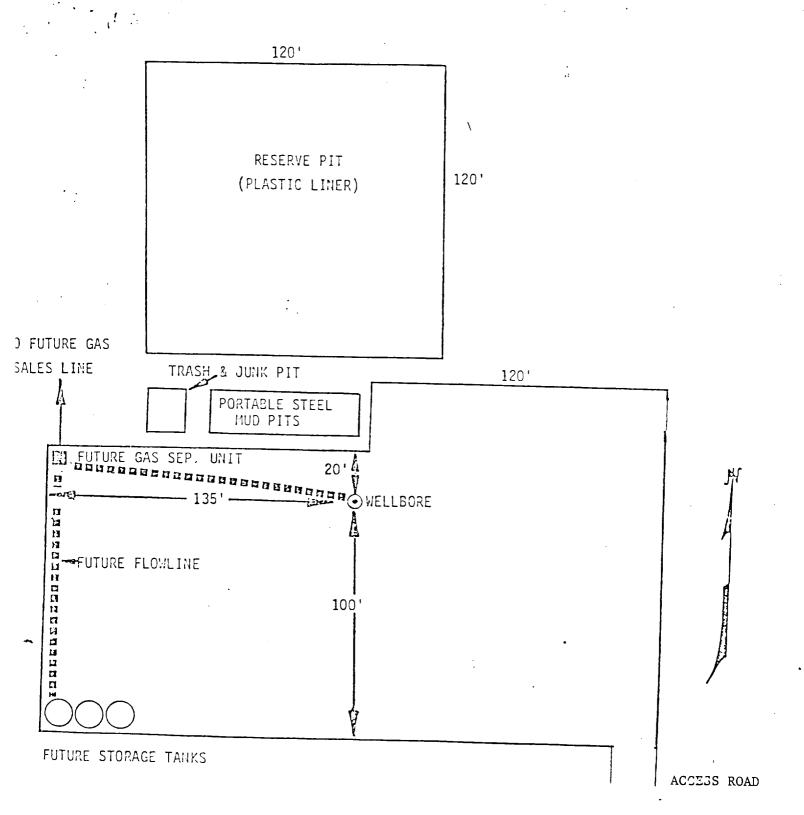
Darrell D. Roberts
Senior Drilling Engineer

Senior Drilling Engineer Meridian Oil Inc.

C. Nokes/
10/19/88







MERIDIAN OIL EXHIBIT "C"

Meridian Oil, 21 Desta Drive Midland, Texas 79705

MERIDIAN OIL INC. APACHE FEDERAL No. 2 Sec. 35, T-19-S, R-29-E Eddy County, New Mexico NM-54865

10" 900s ALL FLANGED CONNECTIONS 3,000# WORKING PRESSURE - 6,000# TEST TO PIT TO PIT TO PIT BLOW OUT PREVENTION EQUIPMENT C2" ADJUSTABLE CHOKE C2" POSITIVE CHOKE 4" VALVE 3" VALVE Z3" VALVE R-BLIND RAMS DRILLING ✓ Tocas HYDRIL R-PIPE

. ATTACHMENT TO FORM C-101