

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

a. TYPE OF WORK

DRILL ☒DEEPEN ☐

200 OCT 10 11:13

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Marathon Oil Company (915) 687-8357

3. ADDRESS AND TELEPHONE NO.

P. O. Box 552, Midland, Tx. 79702-0552

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

935' FNL & 1845' FEL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

10 air miles SSW of Bloomfield, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

1227'

16. NO. OF ACRES IN LEASE

2081.12

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320 E/p

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

165'

19. PROPOSED DEPTH

6,860'

20. ROTARY OR CABLE TOOLS

Rotary

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

6,136' ungraded ground

22. APPROX. DATE WORK WILL START*

Feb. 1, 2001

23.

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------------|-----------------|---------------|--------------------------|
| 12-1/4" | 8-5/8" (J-55) | 24# | 325' | ≈270 cu ft & to surface |
| 7-7/8" | 4-1/2" (K-55) | 11.6# | 6,860' | ≈2394 cu ft & to surface |

This entry is subject to technical and
procedural review pursuant to 43 CFR 3185.3
and special pursuant to 43 CFR 3185.4.

ALL APPLICANTS AUTHORIZED ARE
REQUIRED TO COMPLY WITH ATTACHED
"GENERAL REQUIREMENTS"



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

Consultant (505) 466-8120

DATE

10-13-00

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

4/19/01

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:

/s/ Joel Farrell

APPROVED BY

TITLE

DATE

APR 18

*See Instructions On Reverse Side

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|--|--|--|
| ¹ API Number 30045-30400 | ² Pool Code 71599 | ³ Pool Name BASIN DAKOTA |
| ⁴ Property Code 6462 | ⁵ Property Name SCHWERTFEGGER | ⁶ Well Number 2E |
| ⁷ OGRID No. 14021 | ⁸ Operator Name MARATHON OIL COMPANY | ⁹ Elevation 6136 |

¹⁰ Surface Location

| | | | | | | | | | |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| B | 8 | 27 N | 11 W | | 935 | North | 1845 | East | San Juan |

¹¹ Bottom Hole Location If Different From Surface

| | | | | | | | | | |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| | | | | | | | | | |

| | | | |
|--|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 32.05 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|--|-------------------------------|----------------------------------|-------------------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | | | | | | |
|----|-------------|-----------|--|-------|-----------|--|
| 16 | SB 9° 53' W | 80.04 CH. | 935' | 1845' | 80.06 CH. | 17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature BRIAN WOOD Printed Name CONSULTANT Title OCT. 13, 2000 Date |
| | SEC. | 8 | APR 2001 RECEIVED OIL CON. DIV. DIST. 3 | | NO 003' W | 18 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 supervision, and that the same is true and correct to the best of my belief. 16 Sep 2000 Date of Survey Signature and Seal of Professional Surveyor William H. Mahke II Certificate Number 8466 |

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) An 8-5/8" x 11" 2,000 pound double ram BOP system with a choke manifold and mud cross will be tested to 200 psi and then to 2000 psi. Upper and lower Kelly cocks with valve handle and subs to fit all drill string connections which are in use will be available on the rig floor.

Tests will be run when:

- 1) installed
- 2) anytime a pressure seal is broken (test only affected equipment)
- 3) at least every 30 days
- 4) blind & pipe rams will be activated each trip, but no more than daily

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested before drilling surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs. Maximum expected bottom hole pressure is \approx 2,800 psi. BOP and mud system will control pressure.

4. CASING & CEMENT

| <u>Hole Size</u> | <u>O.D.</u> | <u>Weight (lb/ft)</u> | <u>Grade</u> | <u>Age</u> | <u>Connections</u> | <u>GL Setting Depth</u> |
|------------------|-------------|-----------------------|--------------|------------|--------------------|-------------------------|
| 12-1/4" | 8-5/8" | 24 | J-55 | New | 8rd, ST&C | 325' |
| 7-7/8" | 4-1/2" | 11.6 | K-55 | New | 8rd, LT&C | 6,860' |

Surface casing will be cemented to surface with \approx 270 cu. ft. (\approx 230 sx) Class B Neat + 1/4 lb/sk cello-flake + 2% CaCl₂. Yield = 1.27 cu. ft./sk. Weight = 15.2 lb/gal.

Marathon Oil Company
Schwerdtfeger 8 2 E
935' FNL & 1845' FEL
Sec. 8, T. 27 N., R. 11 W.
San Juan County, New Mexico

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Conventional centralizers will be set on the bottom two joints and every fourth joint to surface.

Production casing hole will be cemented to surface as follows. DV @ 4,000'.

First stage Lead will be cemented to 4,000' with 828 cu. ft. (600 sx) 50:50 Poz + 5 lb/sk gilsonite + 2% gel + 1/4 lb/sk cello-flake, dispersant, and FLA. Yield = 1.38 cu. ft./sk. Weight = 13.5 lb/gal. Excess = 25%.

Second stage Lead will be cemented to surface with 1440 cu. ft. (500 sx) Class B or H + 10 lb/sk gilsonite + 4% gel + 1/2 lb/sk cello-flake + 3% Econolite. Yield = 2.88 cu. ft./sk. Weight = 11.4 lb/gal. Excess = 50%

Second stage Tail will be cemented to 3,600' with 126 cu. ft. (100 sx) Class B or H Neat + 1/4 lb/sk cello-flake + 2% CaCl. Yield = 1.26 cu. ft./sk. Weight = 15.2 lb/gal. Excess = 10%.

Production casing may be cemented with an alternative foam cement.

First stage Lead will be cemented to 200' with 1320 cu. ft. (1,740 cu. ft. when foamed) or 1,000 sx 50:50 Poz + 2% gel + 2% Diacel LWL 0.094 gal/sk foaming agent. Yield = 1.32 cu. ft./sk (1.74 when foamed). Weight = 13.8 lb/gal (10.5 when foamed). Excess = 15%.

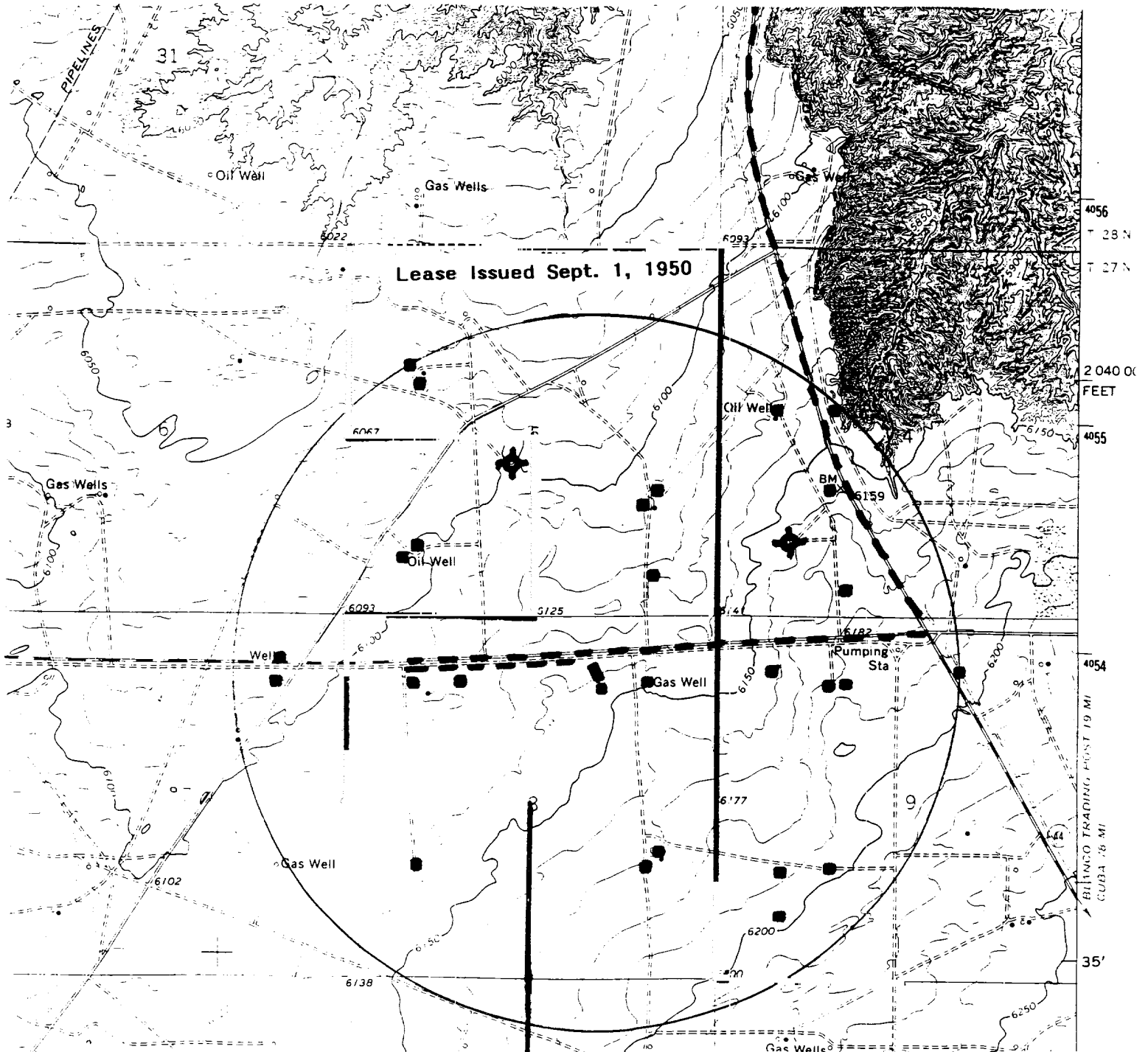
First stage Tail will be cemented to 6,000' with 146 cu. ft. (116 sx) Class B or H Neat + 1/4 lb/sk cello-flake + 2% CaCl. Yield = 1.26 cu. ft./sk. Weight = 15.2 lb/gal.

Cap will be cemented to surface with 75 cu. ft. (60 sx) Class B or H with 2% CaCl_2 .

Conventional centralizers will be set on the bottom two joints, every second joint to 6,100' and every fourth joint from 2,000' to surface.

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PROPOSED WELL: LEASE BOUNDARY:
 EXISTING WELL: EXISTING ROAD:
 P&A WELL:

PERMITS WEST INC.
 PROVIDING PERMITS FOR LAND USERS