

WELL NAME & NUMBER Lea Unit SWD #2

LOCATION Section 12, T-20-S, R-34-E
(Give Unit, Section, Township and Range)

OPERATOR Marathon Oil Company

DRILLING CONTRACTOR Kenai Drilling Limited

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above-described well and that he has conducted deviation tests and obtained the following results:

[illegible]

Drilling Contractor Kenai Drilling Limited

By H. Hamer

Subscribed and sworn to before me this 23rd day of January, 1984

Barbara J. LaPone
Notary Public

My Commission Expires 9-18-85

Ector County Texas

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYN. M. OIL AND GAS COMMISSION
SUBMIT IN TRI
(Other, Instructive
verse side) 1000
HOBBS, NEW MEXICO 33240Form approved.
Budget Bureau No. 42-R1424.
5. LEASE DESIGNATION AND SERIAL NO.

33240 NM-02127-B

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

| | | | |
|---|--|---|--|
| 1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> Salt Water Disposal | | 7. UNIT AGREEMENT NAME Lea Unit | |
| 2. NAME OF OPERATOR Marathon Oil Company | | 8. FARM OR LEASE NAME | |
| 3. ADDRESS OF OPERATOR P.O. Box 552, Midland, Texas | | 9. WELL NO. SWD No. 2 | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1625' FSL & 330' FWL | | 10. FIELD AND POOL, OR WILDCAT Lea | |
| 14. PERMIT NO. | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 12, T-20-S, R-34-E | |
| 15. ELEVATIONS (Show whether DF, RT, GR, etc.) 3659 GR, 3671 KB | | 12. COUNTY OR PARISH Lea | |
| | | 13. STATE N.M. | |

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

- Moved in and spudded 12 1/4" hole 7:00 p.m. 12/30/83.
- Drilled 12 1/4" hole to 900'. Ran 9 5/8", 32.3 lb/ft., H-40 casing to 898'.
- Cemented casing with 400 sacks of Lite cement followed by 200 sacks of Class "C" with 2% CaCl₂. Circulated 195 sacks to pit.
- WOC 24 hours. Install BOP.
- Test BOP and casing to 1500 psi.
- Drilled 8 3/4" hole to 3800'.
- Ran 7" 23 lb/ft, K-55 casing to 3800'. Ran DV tool at 1560' with external casing packer at 1563'.
- Cemented first stage with 350 sacks of 65/35 POZ w/4% gel and 5 lb/salt per sack followed by 200 sacks of Class "C" with 2% CaCl₂. Cemented second stage with 200 sacks of 65/35 POZ with 4% gel and 5 lb/salt per sack followed by 100 sacks of Class "C" with 2% CaCl₂. Circulated 100 sacks to surface on second stage.
- WOC 28 hours. Install and test BOP and casing to 1500 psi. Held okay.
- Drilled out with 6 1/8" bit to 4611'.
- Ran GR-N Log from 4611' to 3250'.
- Rig up and ran 4 1/2", 9.5 and 10.5 lb/ft, K-55 and H-40 plastic-coated tubing and Otis MH packer to 3714'. Set packer at 3714'.
- Installed wellhead. Released drilling rig.

18. I hereby certify that the foregoing is true and correct

SIGNED William D. HelmsTITLE Dist. Operations EngineerDATE 1/12/84

(This space for Federal or State office use)

APPROVED BY SWD
CONDITIONS OF APPROVAL, 1984:
MAY 9 1984

TITLE _____

DATE _____

Carlsbad NEW MEXICO

*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

U.S. GOVERNMENT PRINTING OFFICE: 1983 O-855229

5010-108-01

RECEIVED
MAY 11 1984
F.D.O.
L. E. S. S. OFFICE

OIL CONSERVATION DIVISION
DISTRICT 1

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DATE 1/31/84

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed NSP _____
Proposed SWD X _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

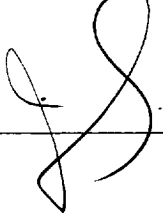
I have examined the application for the:

Marathon Oil Co. Lease Unit SWD #2-L 12-20-34.
Operator _____ Lease and Well No. _____ Unit, S - T - R _____

and my recommendations are as follows:

SHOULD BE DENIED AS PAUL SAYS
PROPOSED SWD ZONE IS CARIBBEAN REEF

Yours very truly,



/mc

Houston sion
Production Operations, United States



**Marathon
Oil Company**

P.O. Box 2409
Hobbs, New Mexico 88240
Telephone 505/393-7106

January 19, 1984

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Dear Gentlemen:

Marathon Oil Company requests Administrative Approval for the injection of produced water into the Lea Unit SWD Well No. 2. This well is located in Lea County, 1625' FSL and 330' FWL, Unit L, Section 12, T20S, R34E. This is the second water disposal well on this lease. The first, Lea Unit No. 8 is still in operation. It was approved in 1977 by Order No. SWD-189. With the recent addition of submersible pumps in the Lea Unit Field, water production has increased significantly. In order to efficiently handle these volumes of water Lea Unit SWD Well No. 2 was drilled. It will be disposing into the same formation as Well No. 8.

Attached with this letter you will find Form C-103 and the requested data. Should any additional data or information be required please contact this office. Thank you.

Sincerely,

Thomas F. Zapatka
Production Engineer

TFZ:lbp

Enclosures

RECEIVED
JAN 27 1984
O.C. 2.
HDSIS OFFICE

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Marathon Oil Company
Address: P. O. Box 2409 Hobbs, New Mexico 88240
Contact party: Thomas F. Zapatka Phone: (505) 393-7106
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Thomas F. Zapatka Title Production Engineer
Signature: _____ Date: January 19, 1984
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

JAN 21 2012
3:22 PM

ATTACHMENT

The proposed average daily injection rate for this well is estimated at 9000 BWPD. The other disposal well, Well No. 8 will handle the other 9000 BWPD being produced on this lease. If Well No. 8 goes down for some reason this new well will handle all of the produced water, approximately 18,000 BWPD. This system is closed. The maximum injection rate is 110 psi, the average will be around 45 psi.

The source of the injected water is the Devonian formation from the producing wells on this lease. A water analysis is enclosed with this application. No water analysis is available for the Seven Rivers formation.

The injection zone is the Seven Rivers formation from 3800' - 4611'. Injection will be down 4 1/2" plastic coated tubing into this open hole interval.