

# Gulf Oil Exploration and Production Company

D. L. Joiner  
MANAGER TECHNICAL  
WESTERN DIVISION

July 9, 1984

P. O. Drawer 1150  
Midland, TX 79702

Energy and Minerals Department  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*Case 8312*

Attention: Mr. Richard L. Stamets

Gentlemen:

Re: Administrative Approval of Water-  
flood Expansion, South Eunice Pool,  
Lea County, New Mexico

Gulf Oil Corporation respectfully requests administrative approval to expand our waterflood in the Eumont and South Eunice Pools, Lea County, New Mexico. Previously, authority was granted by Order No. R-1820 (attached as Exhibit A) for installation of a waterflood project in the William A. Ramsay Lease. Note that the Ramsay Project is located in both Eumont and South Eunice Pools. Our desire, now, is to expand that waterflood to the J. F. Janda (NCT-F) Lease which is located in Section 4, T-22-S, R-36-E. Exhibit B shows the location of J. F. Janda (NCT-F) with respect to the Ramsay Waterflood. Exhibit C is a structural cross-section spanning both waterflood areas. It demonstrates the relative continuity of porosity in this region. Please, find attached Form C-108, Exhibits 1 through 9 as required by the form and proof of legal notice publication. The surface land owner and offset mineral operators are being notified of our application by copy of this letter sent by registered mail.

Several viable waterfloods are currently operating in the South Eunice Pool. Granting this authority for waterflood expansion is in the interest of conservation and will not infringe on the correlative rights of others in the field.

Yours very truly,

*D. L. Joiner*  
D. L. JOINER

LDM/js

cc: Jerry Sexton - OCD Hobbs  
Offset Operators - List Attached



A DIVISION OF GULF OIL CORPORATION

Case S 312

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Gulf Oil Corporation  
Address: P. O. Box 1150, Midland, Texas 79702  
Contact party: J. R. Frank Phone: 915-687-7100
- 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 R-1820.
- 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: J. Viret Title Reservoir Engineer  
Signature: [Signature] Date: 5-30-84
- \* 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.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

## 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.

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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.

OFFSET OPERATORS

Arco Oil and Gas Company  
P. O. Box 2819  
Dallas, Texas 75221

Campbell and Hedrick  
P. O. Box 401  
Midland, Texas 79701

Cities Service Company  
P. O. Box 1919  
Midland, Texas 79702

C. E. Long  
P. O. Box 1943  
Midland, Texas 79702

Sun Exploration and Production Company  
P. O. Box 1861  
Midland, Texas 79702

SURFACE OWNERS

Northern Natural Gas Co.  
2223 Dodge St.  
Omaha, Nebraska 68102

Commissioner of Public Lands  
P. O. Box 1148  
Santa Fe, New Mexico 87503

Exhibit A

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2111  
Order No. R-1820

APPLICATION OF GULF OIL CORPORATION  
FOR AN ORDER AUTHORIZING A WATERFLOOD  
PROJECT IN THE EUMONT AND SOUTH EUNICE  
POOLS, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 2, 1960, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 16th day of November, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Gulf Oil Corporation, seeks authorization to institute a waterflood project in the Eumont and South Eunice Pools by the injection of water into the Queen formation through Wells No. 14, 24, 27, 32, 35, and 48 located on the William A. Ramsay lease in Sections 27 and 34, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) That the proposed waterflood project area includes the following lands in Township 21 South, Range 36 East, NMPM, Lea County, New Mexico:

<u>Section 27:</u>	NW/4 SE/4, S/2 SE/4, SW/4
<u>Section 33:</u>	E/2 NE/4
<u>Section 34:</u>	N/2, SE/4, N/2 SW/4, SE/4 SW/4
<u>Section 35:</u>	E/2 NW/4, NW/4 SW/4

(4) That all lands in the proposed waterflood project area have a common royalty owner.

(5) That a large majority of the producing wells in the area to be waterflooded have reached an advanced state of depletion and are properly to be classified as "stripper" wells.

(6) That the proposed waterflood project should be authorized and should be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including those provisions regarding allocation of allowables and expansion of the project area.

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, be and the same is hereby authorized to institute a waterflood project in the Eumont and South Eunice Pools by the injection of water into the Queen formation through Wells No. 14, 24, 27, 32, 35, and 48 located on the William A. Ramsay lease in Sections 27 and 34, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico.

(2) That the waterflood project area shall include the following lands in Township 21 South, Range 36 East, NMPM, Lea County, New Mexico:

Section 27: NW/4 SE/4, S/2 SE/4, SW/4  
Section 33: E/2 NE/4  
Section 34: N/2, SE/4, N/2 SW/4, SE/4 SW/4  
Section 35: E/2 NW/4, NW/4 SW/4

(3) That the 40-acre tract comprising the SE/4 SE/4 of Section 28, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, may be included in the waterflood project area by administrative approval of the Commission upon proof that this tract has been unitized with the remainder of the project area, or that the ownership of this tract is common with that of the project area, or that all interests in this tract have been brought under a working agreement.

(4) That the operation of the waterflood project herein authorized shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including those provisions regarding allocation of allowables and expansion of the project area, except as provided for in Paragraph (3) above.

(5) That monthly progress reports on the waterflood project herein authorized shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

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CASE No. 2111

Order No. R-1820

DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

esr/

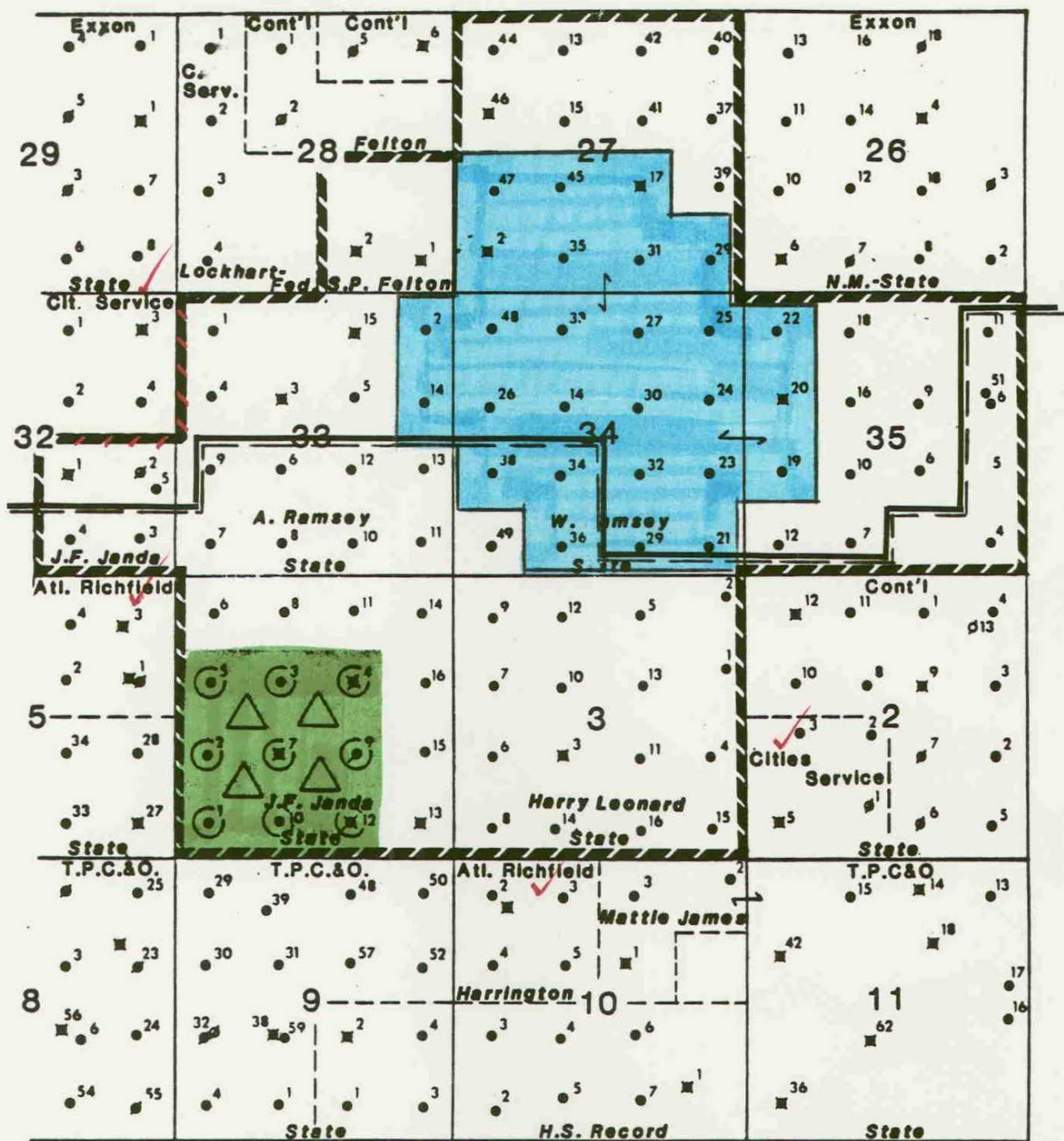








Exhibit B

# LEGEND

-  100% Gulf Acreage
-  Producing Wells
-  Proposed Infill Injector
-  Existing Project
-  Proposed Expansion Project
-  Boundary Between Eumont and South Eunice Pools

Proposed North Seven Rivers-Queen  
Waterflood Development  
Section 4, T-22-S, R-36-E  
Lea County, New Mexico

0 1/2 1 mi.