

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. 2954
Order No. R-2617

APPLICATION OF AMBASSADOR OIL
CORPORATION FOR APPROVAL OF THE
LANGLIE-MATTIX PENROSE SAND UNIT
AGREEMENT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 4, 1963, 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 10th day of December, 1963, 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, Ambassador Oil Corporation, seeks approval of the Langlie-Mattix Penrose Sand Unit Agreement covering 3,920 acres, more or less, of State, Federal and Fee lands in Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That approval of the proposed Langlie-Mattix Penrose Sand Unit Agreement will in principle tend to promote the conservation of oil and gas and the prevention of waste.

IT IS THEREFORE ORDERED:

(1) That the Langlie-Mattix Penrose Sand Unit Agreement is hereby approved.

(2) That the plan under which the unit area shall be operated shall be embraced in the form of a unit agreement for the

development and operation of the Langlie-Mattix Penrose Sand Unit Area, and such plan shall be known as the Langlie-Mattix Penrose Sand Unit Agreement Plan.

(3) That the Langlie-Mattix Penrose Sand Unit Agreement Plan is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Oil Conservation Commission of New Mexico by law relative to the supervision and control of operations for the exploration and development of any lands committed to the Langlie-Mattix Penrose Sand Unit, or relative to the production of oil or gas therefrom.

(4) (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

LEA COUNTY, NEW MEXICO
TOWNSHIP 22 SOUTH, RANGE 37 EAST
Section 14: SW/4 SW/4
Section 20: SE/4 SE/4
Section 21: All
Section 22: All
Section 23: W/2 NW/4, SW/4 SW/4
Section 26: W/2 W/2
Section 27: All
Section 28: All
Section 29: E/2 NE/4, NE/4 SE/4
Section 32: E/2 NE/4
Section 33: N/2
Section 34: N/2, SE/4

containing 3,920 acres, more or less.

(b) That the unit area may be enlarged or contracted as provided in said plan; provided, however, that administrative approval for expansion or contraction of the unit area must also be obtained from the Secretary-Director of the Commission.

(5) That the unit operator shall file with the Commission an executed original or executed counterpart of the Langlie-Mattix Penrose Sand Unit Agreement within 30 days after the effective date thereof. In the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

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(6) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey, and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall notify the Commission immediately in writing of such termination.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

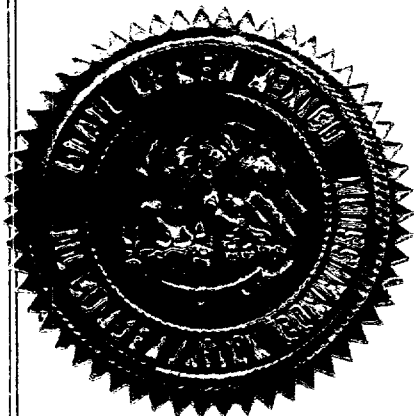
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JACK M. CAMPBELL, Chairman


E. S. WALKER, Member


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



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IN THE MATTER OF THE APPLICATION
OF AMBASSADOR OIL CORPORATION FOR
THE APPROVAL OF THE LANGLEIE-MATTIX
PENROSE SAND UNIT AND FOR AN ORDER
AUTHORIZING AN EXPANSION OF THE
PRESENT WATERFLOOD PROJECT IN THE
LANGLIE-MATTIX POOL, LEA COUNTY,
NEW MEXICO.

APPLICATION

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Comes now the applicant, Ambassador Oil Corporation, whose address is P. O. Box 9338, Fort Worth, Texas, and files herewith a copy of its proposed Unit Agreement for the development and operation of the Langlie-Mattix Penrose Sand Unit in Lea County, New Mexico, and hereby makes application for the approval of the Unit as provided by law and for an expansion of the Waterflood Project in the proposed Unit Area of the injection of water into the Penrose Sand (Queen) zone through five additional injection wells located thereon, and in support thereof states:

1. That the Unit Area covers the following described land in Lea County, New Mexico, to-wit:

containing (3,920 acres) more or less.

2. That the lands embraced in the Unit consist of
State, Federal and patented lands.

3. That the applicant, Ambassador Oil Corporation, is designated as Unit Operator in the Unit Agreement, and as such is given the authority under the terms thereof to carry on operations for the discovery, development and production of unitized substances.

4. That the Unit Agreement is substantially in the form as Unit Agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico, the Director of the United States Geological Survey and the New Mexico Oil Conservation Commission. The Unit Agreement has been submitted to the Commissioner of Public Lands and the Director of the United States Geological Survey and tentatively approved by said parties, and that application has been made to said parties for approval of said Unit Agreement.

5. That approximately 99.5% of the working interest owners have heretofore executed the Unit Agreement, and the Unit Agreement provides that any party owning rights in the unitized substances who does not commit such rights to the Unit Agreement before the effective date thereof may thereafter become a party by subscribing to such Unit Agreement or by ratifying the same in accordance with the terms of the Agreement.

6. That the Unit will lead to a more efficient and orderly development and operation of the existing waterflood being carried on by the applicant in the area and it is necessary to allow applicant to completely develop the waterflood project, and the Unit will promote the conservation of oil and gas and prevent waste.

7. That within thirty days after the effective date of the Langlie-Mattix Penrose Sand Unit Agreement, the applicant will file with Commission an executed or original counterpart of the Agreement, and in the event of a subsequent joinder of any party or expansion or contraction of the Unit Agreement, as provided by the terms of the Agreement, the Unit Operator will file with the Commission within thirty days thereafter counterparts of the Unit Agreement reflecting the subscription of those interests having joined or ratified.

8. That part of the land embraced in the Unit is now in a waterflood project heretofore authorized by orders of this Commission, Nos. R-179-A, R-179-B, R-772, etc., and that the applicant is now injecting water in the following wells located within the Unit Area:

<u>WELL NO.</u>	<u>DESCRIPTION</u>
36-1	NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34, T-22-S, R-37-E
36-4	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34, T-22-S, R-37-E
37-1	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 34, T-22-S, R-37-E
21-7	SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 34, T-22-S, R-37-E

In addition thereto, that water is presently being injected in wells offsetting the Unit, which wells are located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ and SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, Township 22 South, Range 37 East. That the applicant proposes to inject water into the following wells which will be injection wells:

<u>WELL NO.</u>	<u>DESCRIPTION</u>
19-1	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 27, T-22-S, R-37-E
19-2	SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 27, T-22-S, R-37-E
21-2	SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 27, T-22-S, R-37-E
21-3	NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 34, T-22-S, R-37-E
35-2	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 33, T-22-S, R-37-E

9. That all of the wells in the Unit Area which are included in the waterflood project have reached an advanced stage of depletion and are stripper wells.

10. That the pilot flood heretofore authorized by orders of this Commission has established the feasibility of waterflooding the Penrose sand (Queen) zone of the Langlie-Mattix Pool, and has further established that such flooding will result in the increased ultimate recovery of oil and will, therefore, prevent waste.

11. That the area adjacent to the present flood was pursuant to the orders of the Commission exempt from the allowable provisions of Rule 701-E, and this application involves an expansion of existing waterflood project and should be exempt from the allowable provisions of Rule 701-E and should be granted a capacity allowable.

12. That in support of said application and in accordance with the provisions of Rule 701, the applicant submits herewith the following exhibits:

(a) Exhibit A, a plat showing the location of the proposed injection wells and the location of all other wells within a radius of two miles from the proposed injection wells, indicating lessees within said two mile radius.

(b) Exhibit B showing the Stage Development Plan.

(c) Exhibit C, Unit Boundary Map.

(d) Exhibit D, Injection Well Casing Program.

(e) Exhibit E, New Mexico Oil & Gas Commission Waterflood Application Data.

WHEREFORE, applicant requests that the Commission set this matter down for hearing before an examiner at an early date, publish the notices required by law and, after hearing, to issue its order:

1. Approving the Langlie-Mattix Penrose Sand Unit Agreement.

2. Expanding the limits of the existing waterflood project in the Langlie-Mattix Pool to include the lands embraced in the Unit Agreement.

3. Establishing rules for the expansion and operation of the flood within said area.

4. Providing for capacity allowable for the area in a like manner as such allowables are permitted in the waterflood projects in this pool.

Respectfully submitted,

AMBASSADOR OIL CORPORATION

By _____
James T. Jennings
Attorney for Applicant
P. O. Box 1180
Roswell, New Mexico

R 37 E

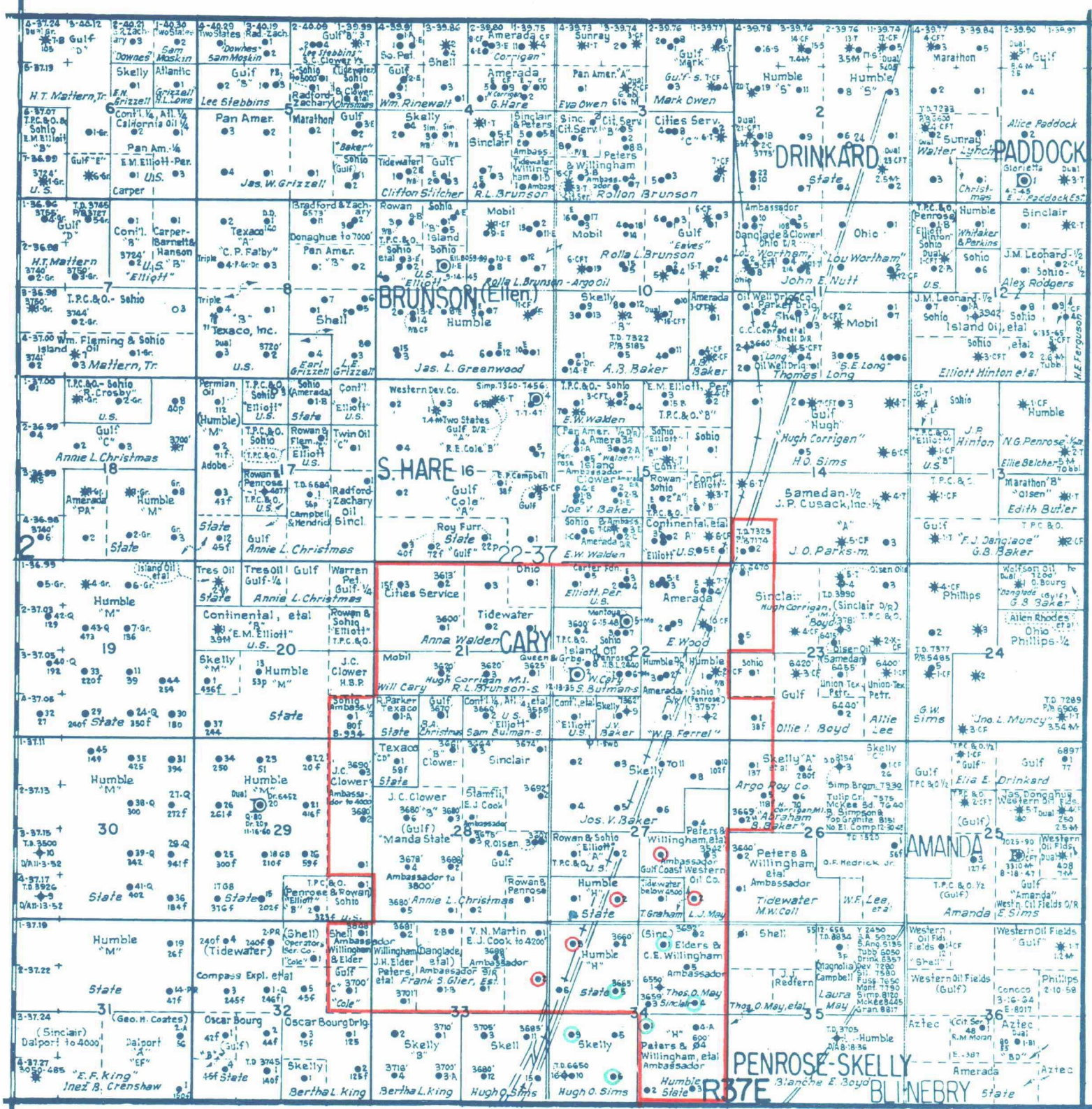


EXHIBIT "A"
MAP SHOWING WELLS IN TWO MILE RADIUS
FROM PROPOSED INJECTION WELLS

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-  PRESENT INJECTION WELLS
 PROPOSED INJECTION WELLS

AMBASSADOR OIL CORPORATION
LANGLIE MATTIX UNIT AREA
LEA CO. NEW MEXICO

- PENROSE PROD.
- ◉ PENROSE INJ.
- ⚠ GRAYBURG PROD.
- ⬡ PROPOSED INJ.



FLOOD NO. 36

R 37 E

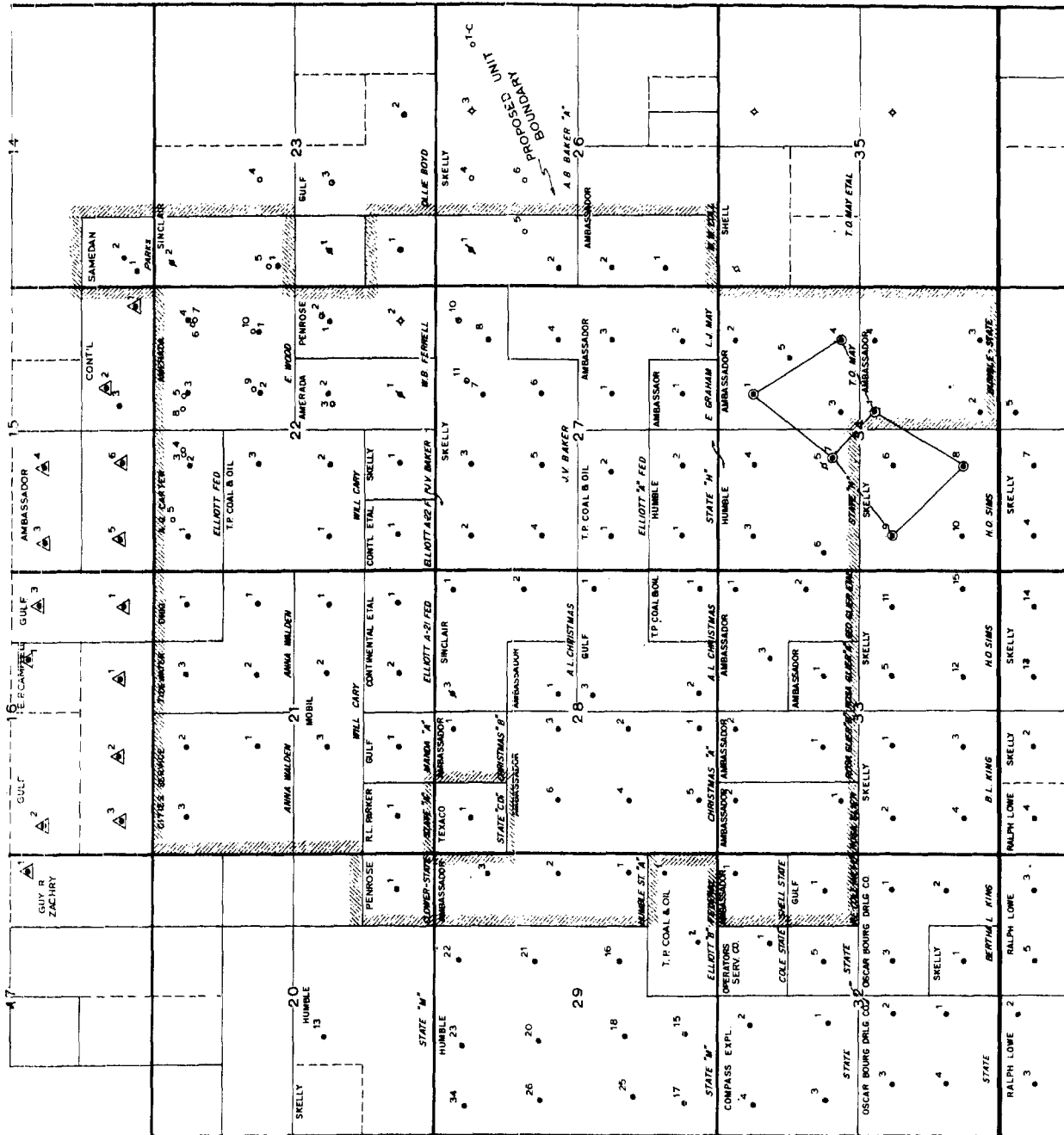


EXHIBIT "C" UNIT BOUNDARY MAP

AMBASSADOR OIL CORPORATION
LANGLEY MATTHEW UNIT AREA
LEA CO. NEW MEXICO

• PENROSE PROD
• PENROSE INJ
• GRAYBURG PROD

1 MILE
FLOOD NO. 36

EXHIBIT "E"

NEW MEXICO OIL AND GAS COMMISSION
WATERFLOOD APPLICATION DATA

FIELD LANGLIE-MATTIX COUNTY LEA
 OPERATOR AMBASSADOR OIL CORPORATION
 LEASES LANGLIE-MATTIX PENROSE SAND UNIT
 RESERVOIR PENROSE SAND (QUEEN) DISCOVERY DATE SEPTEMBER, 1935

I. RESERVOIR AND FLUID CHARACTERISTICS

A. INFORMATION ON ENTIRE RESERVOIR

1. NAME OF FORMATION PENROSE SAND
2. ESTIMATED PRODUCTIVE AREA OF ENTIRE RESERVOIR 20,000 ACRES
3. COMPOSITION (SAND, LIMESTONE, DOLOMITE, ETC.) SAND
4. TYPE OF STRUCTURE STRATIGRAPHIC TRAP
(INCLUDE CROSS-SECTION AND STRUCTURAL MAPS)
5. TYPE DRIVE DURING PRIMARY PRODUCTION SOLUTION GAS
6. ORIGINAL RESERVOIR PRESSURE 1500 PSI
7. WAS GAS CAP PRESENT ORIGINALLY NO AT PRESENT? NO

B. INFORMATION ON PROPOSED PROJECT AREA

(INCLUDE PLAT OF LEASE (S) TO BE FLOODED, SHOWING PRODUCING WELLS, PROPOSED INJECTION WELLS, AND OFFSET WELLS.)

1. NUMBER OF PRODUCTIVE ACRES IN LEASE (S) TO BE FLOODED, 3,920
2. AVERAGE DEPTH TO TOP OF PAY (FEET) 3,400
3. AVERAGE EFFECTIVE PAY THICKNESS (FEET) 25
4. AVERAGE POROSITY (%) 13
5. AVERAGE HORIZONTAL PERMEABILITY (MDS.) 5 RANGE 1-20
6. CONNATE WATER CONTENT (% OF PORE SPACE) 40
7. GRAVITY OF OIL (API) 37 VISCOSITY NO AVAILABLE

II. PRIMARY PRODUCTION HISTORY

1. DATE FIRST WELL COMPLETED ON LEASE (S) JANUARY, 1936
2. OIL, GAS, WATER PRODUCTION BY MONTHS SINCE DISCOVERY. (GRAPHICALLY AS WELL AS IN TABULAR FORM.)
3. STATE OF DEPLETION OF PROJECT AREA STRIPPER
4. NUMBER OF PRODUCING WELLS ON EACH LEASE IN PROJECT AREA 78
5. AVERAGE DAILY OIL PRODUCTION PER WELL AT PRESENT TIME 4 BARRELS
6. CUMULATIVE OIL PRODUCTION TO DATE FROM LEASE (S) 6,363,944

III. RESULTS EXPECTED

1. ESTIMATED ORIGINAL OIL IN PLACE (BBLs.) 49,000,000
2. ESTIMATE OIL SATURATION AT PRESENT TIME (% OF PORE SPACE) 43
3. ESTIMATED RESIDUAL OIL SATURATION AT ABANDONMENT 31%
4. ESTIMATE ULTIMATE ADDITIONAL OIL THAT WILL BE RECOVERED AS A DIRECT RESULT OF INJECTION (BBLs.) 5,000,000

IV. INJECTION

1. SOURCE OF INJECTED WATER (FORMATION, DEPTHS) SANTA ROSA @ 800'
2. FRESH OR SALT WATER BRACKISH (NOT POTABLE)
3. FLOOD PATTERN AND SPACING 80 ACRE 5 SPOT
4. INITIAL INJECTION PRESSURE TO BE USED (PSI) 1850
5. ESTIMATE INITIAL PER WELL RATE OF INJECTION (BBLs.) 300
6. SEE EXHIBIT "D" FOR INJECTION WELL CASING AND CEMENTING PROGRAM.

Note: There will be no EXAMINER HEARING in
the Second Half of December

DOCKET NO. 35-63

DOCKET: EXAMINER HEARING - WEDNESDAY - DECEMBER 4, 1963

9:00 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 2945: Application of Shell Oil Company for the creation of a Devonian Gas Pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the creation of a new Devonian gas pool for its Harris-Federal Well No. 1 located in Section 27, Township 23 South, Range 34 East, Lea County, New Mexico, said pool to comprise all of Sections 27, 28, 33 and 34, Township 23 South, Range 34 East, and all of Sections 3 and 4, Township 24 South, Range 34 East. Applicant further seeks the establishment of special pool rules, including a provision for 640-acre spacing units and for fixed well locations.
- CASE 2946: Application of Shell Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its State V Well No. 5 located in Unit I of Section 27, Township 17 South, Range 35 East, Lea County, New Mexico, to produce oil from the Vacuum-Yates and Vacuum-Paddock Pools through parallel strings of tubing.
- CASE 2947: Application of Charles B. Read for an unorthodox location, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location of his Bates Well No. 1 located 660 feet from the North line and 330 feet from the East line of Section 21, Township 8 South, Range 36 East, South Prairie-Pennsylvanian Pool, Roosevelt County, New Mexico.
- CASE 2948: Application of the Atlantic Refining Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the approval of a cooperative pressure maintenance project for the injection of water into the Gallup (Tocito) formation, Many Rocks-Gallup Oil Pool, San Juan County, New Mexico, by the injection of water through 13 wells located in Sections 6, 7, 8, 17 and 18, Township 31 North, Range 16 West. Applicant further seeks the designation of a project area comprising approximately 1,480 acres in the aforesaid five sections and the adoption of appropriate project rules therefor.
- CASE 2949: Application of Phillips Petroleum Company for an exception to Rule 309-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce up to a maximum of 24 proration units into its Santa Fe Battery No. 14, Santa Fe Lease, Vacuum Abo Reef Pool, Lea County, New Mexico.
- CASE 2950: Application of Amerada Petroleum Corporation for the creation of a new gas pool and for the contraction of the vertical limits of an existing pool. Applicant, in the above-styled cause, seeks the creation of a Morrow-Pennsylvanian Gas Pool, Lea County, New Mexico. Said pool was discovered by applicant's S. E. Anderson "A" Well No. 1 located in Unit P of Section 19, Township 9 South, Range 35 East, and would comprise the SE/4 of Section 19, SW/4 of Section 20, NW/4 of Section 29 and the NE/4

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6f Section 30 in the aforesaid township. Applicant further seeks the contraction of the vertical limits of the South Bough-Pennsylvanian Pool to include the Bough "C" zone of the Pennsylvanian formation only.

CASE 2951: Application of Sunray DX Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Hope Unit Area comprising 3822.96 acres, more or less, of State land in Township 18 South, Range 23 East, Eddy County, New Mexico.

CASE 2952: Application of Sunray DX Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Hope Unit Area comprising 3778.27 acres, more or less, of State land in Township 18 South, Ranges 21 and 23 East, and Township 19 South, Range 23 East, Eddy County, New Mexico.

CASE 2953: Application of Curtis R. Inman for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Walt Canyon Unit Area comprising 11, 100.63 acres, more or less, of State, Federal and fee lands in Townships 21 and 22 South, Range 24 East, and Township 22 South, Range 25 East, Eddy County, New Mexico.

CASE 2954: Application of Ambassador Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Langlie Mattix-Penrose Sand Unit Area comprising 3,920 acres, more or less, of State, Federal and Fee lands in Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 2955: Application of Ambassador Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the expansion of the existing Langlie Mattix Waterflood Project in Section 34, Township 22 South, Range 37 East, Lea County, New Mexico, by the conversion to water injection of 5 wells located in Sections 27, 33 and 34 of said township. Applicant further seeks the establishment of special rules governing further expansion and operation of the waterflood project in the Langlie Mattix-Penrose Sand Unit Area, including a provision for capacity allowables for wells in said project.