

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF SKELLY OIL)
 COMPANY FOR AN ORDER AUTHORIZING THE INJECTION)
 OF FLUID FOR SECONDARY RECOVERY PURPOSES INTO)
 THE LOVINGTON PADDOCK POOL ON THE LOVINGTON)
 PADDOCK UNIT, LOCATED IN PORTIONS OF SECTIONS)
 30 AND 31, TOWNSHIP 16 SOUTH, RANGE 37 EAST,)
 PORTIONS OF SECTIONS 25, 35 and 36, TOWNSHIP)
 16 SOUTH, RANGE 36 EAST, PORTIONS OF SECTIONS)
 1, 2 AND 12, TOWNSHIP 17 SOUTH, RANGE 36 EAST,)
 AND PORTIONS OF SECTIONS 6 AND 7, TOWNSHIP 17)
 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO,)
 AND FOR THE PROMULGATION OF SPECIAL RULES)
 GOVERNING THE OPERATION OF SAID UNIT.)

CASE NO. 3467

FILED _____

HEARING 4/28/66

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A P P L I C A T I O N

Comes now Skelly Oil Company and alleges and states:

1. That it is the operator of the Lovington Paddock Unit containing 3,324.63 acres, more or less of federal, state and fee lands described as follows:

Township 16 South, Range 36 East

SE/4 and S/2 SW/4 of Section 25,
 E/2 E/2 and SW/4 SE/4 of Section 35,
 All of Section 36,

Township 16 South, Range 37 East

SE/4 SW/4 and Lots 3 and 4 of Section 30,
 W/2 NE/4, SE/4, E/2 W/2, and Lots 1, 2, 3 and 4 of Section 31,

Township 17 South, Range 36 East

S/2, S/2 N/2, and Lots 1, 2, 3 and 4 of Section 1,
 E/2 SE/4 and Lot 1 of Section 2,
 NE/4 and E/2 NW/4 of Section 12,

Township 17 South, Range 37 East

S/2 NE/4, SE/4 NW/4, NE/4 SW/4, NW/4 SE/4 and
 Lots 1, 2, 3, 4, 5, 6 and 7 of Section 6,
 Lot 1 of Section 7,
 All in Lea County, New Mexico.

2. That an application for approval of the Unit Agreement for said Unit has been filed with this Commission.

3. That in order to carry out the secondary recovery operations as contemplated by the Unit Agreement, to prevent waste and to recover oil and associated hydrocarbons which would not otherwise be recovered, applicant desires to inject fluid into certain wells within the unit area for injection into the Lovington Paddock Pool, pursuant to Rule 701 of this Commission.

4. That applicant proposes to convert the following 22 wells and utilize same for injection purposes:

| <u>OPERATOR, LEASE, AND WELL NO.</u> | <u>UNIT LOCATION</u> | <u>SEC.</u> | <u>TWP.</u> | <u>RANGE</u> |
|--------------------------------------|----------------------|-------------|-------------|--------------|
| Mobil - State "K" #4 | I | 25 | 16S | 36E |
| Skelly - Mexico "Y" #1 | A | 35 | " | " |
| Skelly - State "R" #10 | C | 36 | " | " |
| Skelly - State "N" #3 | A | 36 | " | " |
| Cities Service - State "AE" #3 | I | 35 | " | " |
| Skelly - State "R" #8 | K | 36 | " | " |
| Tidewater - State "M" #4 | I | 36 | " | " |
| Texaco - Mamie Graham #3 | C | 31 | 16S | 37E |
| Skelly - State "O" #24 | G | 31 | " | " |
| Skelly - State "O" #20 | I | 31 | " | " |
| Sinclair - State "182-A" #5 | K | 31 | " | " |
| Lee Drlg. Co. - State "E" #5 | A | 2 | 17S | 36E |
| Lee Drlg. Co. - State "E" #1 | C | 1 | " | " |
| Amerada - State "LA" #16 | A | 1 | " | " |
| Mobil - State "R" #12 | I | 2 | " | " |
| Amerada - State "LA" #20 | K | 1 | " | " |

(Continued)

OPERATOR, LEASE, AND WELL NO.

UNIT LOCATION

SEC.

TWP.

RANGE

Mobil - State "R" #10
Cities Service - State "AJ" #1
McBee - State "A" #2
Ashland - C. S. Caylor #5
Skelly - C. S. Caylor #5
Skelly - M. E. Caylor #2

| | | | |
|---|----|-----|-----|
| I | 1 | 17S | 36E |
| C | 12 | " | " |
| A | 12 | " | " |
| C | 6 | 17S | 37E |
| A | 6 | " | " |
| K | 6 | " | " |

All in Lea County, New Mexico

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5. That attached hereto and made a part hereof is a map, labeled Exhibit "A", which shows the location of the proposed injection wells and the location of all other wells within a radius of two miles from said proposed injection wells, and the formation from which said wells are producing, and that also indicated on said exhibit are the lessees within said two-mile radius.

6. That attached hereto and made a part hereof is Exhibit "B" which contains the diagrammatic sketches of the proposed injection wells showing the casing strings, including diameter and setting depths, quantities used and top of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers.

7. That the formation sought to be waterflooded and into which injection will be made is the Lovington Glorieta (Paddock) Formation underlying the Unit Area, the same being the heretofore established underground reservoir which has been found to occur between the depths of 6010 feet and 6838 feet in Skelly Oil Company's State "O" No. 12 well (1650' FSL, 2310' FEL Section 31-T16S-R37E, Lea County, New Mexico) as indicated by Schlumberger's E. S. Gamma Ray log, run No. 1, taken August 9, 1952, said log being measured from a derrick floor elevation of 3829 feet above sea level.

8. That the fluid sought to be injected is water, and the anticipated volumes to be injected are 9,200 barrels per day, and that the source of said injection fluid is from the Ogalalla formation. Applicant, also, contemplates re-injection of produced water.

WHEREFORE, PREMISES CONSIDERED, applicant prays that this Commission, after the giving of notice as required by law, set this matter down for hearing, and that at the conclusion of said hearing based on the evidence adduced enter its order granting the applicant permission to conduct a waterflood project on the Lovington Paddock Unit by utilizing as injection wells the wells above described, with said secondary recovery project to be governed by the provisions of Rule 701, for permission to expand or change the waterflood program by administrative means without the necessity of a separate hearing, for appropriate field rules if necessary, and for such other orders, rules and regulations as may be necessary in the premises.

Respectfully submitted,

SKELLY OIL COMPANY

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