Entered January 25, 1974

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. 5138 Order No. R-4717

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APPLICATION OF SKELLY OIL COMPANY FOR A WATERFLOOD PROJECT AND FOUR DUAL COMPLETIONS, EDDY COUNTY, NEW MEXICO.

## ORDER OF THE COMMISSION

## BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 3, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>25th</u> day of January, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, 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, Skelly Oil Company, seeks authority to institute a waterflood project by injection of water into the Seven Rivers formation, Fren Pool, through six injection wells in its Skelly Unit Area in Sections 21, 22, and 28, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That injection of water in the subject project is to take place through three singly completed wells converted to water injection, those being applicant's Skelly Unit Well No. 10, located in Unit "H" of Section 21; Skelly Unit Well No. 12, located in Unit "J" of Section 21; and Skelly Unit Well No. 16, located in Unit "N" of Section 21, all in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico, and through three wells to be recompleted as dual completions (conventional) to inject water into both the Seven Rivers and the San Andres formations, those being applicant's Skelly Unit Well No. 54, located in Unit "L" of Section 22; Skelly Unit Well No. 77, located in Unit "P" of Section 21; and Skelly Unit Well No. 89, located in Unit "B" of Section 28, all in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(4) That the applicant further seeks authority to recomplete said Skelly Unit Wells Nos. 54, 77, and 89, which are presently completed as injection wells in the Skelly Unit Waterflood Project, Grayburg-Jackson Pool, as dual completions (conventional) to inject water into the Seven Rivers and the San Andres formation



-2-CASE NO. 5138 Order No. R-4717

through a single string of tubing with separation of said formations achieved by means of a packer.

(5) That the applicant further seeks authority to recomplete its Skelly Unit Well No. 76, located in Unit "O" of Section 21, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico as a dual completion (conventional) to produce oil from the Fren-Seven Rivers and the San Andres formations through parallel strings of tubing with separation of the zones by means of a packer set at approximately 3100 feet. -----

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(6) That the wells in the proposed waterflood project area are in an advanced state of depletion and may properly be classified as "stripper" wells.

(7) That approval of the subject waterflood will result in the recovery of oil which would otherwise not be recovered, thereby preventing waste and protecting correlative rights.

(8) That the mechanics of the proposed dual completions are feasible and in accord with good conservation practices.

(9) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection zones and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(10) That the subject waterflood project should be approved and governed by rules 701, 702, and 703 of the Commission Rules and Regulations.

(11) That the subject dual completion producer should be approved and governed by rule 112-A of the Commission Rules and Regulations.

## IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project in its Skelly Unit Area by the injection of water into the Seven Rivers formation, Fren Pool through the following-described wells, all in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

| SKELLY UNIT WELL NO. | UNIT | SECTION |
|----------------------|------|---------|
| 10                   | "H"  | 21      |
| 12                   | "Ј"  | 21      |
| 16                   | "N"  | 21      |
| 77                   | "P"  | 21      |
| 54                   | "L"  | 22      |
| 89                   | "B"  | 28      |
|                      |      |         |

-3-CASE NO. 5138 Order No. R-4717

(2) That the applicant is further authorized to recomplete its Skelly Unit Well No. 54, located in Unit "L" of Section 22, its Skelly Unit Well No. 77, located in Unit "P" of Section 21, and its Skelly Unit Well No. 89, located in Unit "B" of Section 28, all in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico, as dual completions (conventional) to inject water into the Seven-Rivers and the San Andres formations through a single string of tubing with separation of the zones achieved by means of a packer.

(3) That the applicant is further authorized to recomplete its Skelly Unit Well No. 76, located in Unit "O" of Section 21, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico as a dual completion (conventional) to produce oil from the Seven Rivers and the San Andres formations through parallel strings of 2 3/8-inch tubing with separation of the zones achieved by means of a packer set at approximately 3,100 feet.

(4) That injection into each of the subject injection wells shall take place through 2 3/8-inch EUE internally coated tubing set in a packer located above and as near as practicable to the uppermost perforations and, in the case of the subject dually completed injection wells, an additional packer shall be located between the perforations for the respective zones; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(5) That the operator shall immediately notify the supervisor of the Commission's Artesia District Office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged or abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(6) That the above authorized waterflood project is hereby designated the Skelly Unit Fren-Seven Rivers Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(7) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(8) That the applicant shall complete and operate its Skelly Unit Well No. 76 as hereinabove described in accordance with Rule No. 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

(9) That the applicant shall take packer-leakage tests on its Skelly Unit Well No. 76, as hereinabove described, upon its completion and annually thereafter during the Annual Shut-In Pressure Test Period for the Grayburg-Jackson Pool.



-4-CASE NO. 5138 Order No. R-4717

(10) 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

I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member L

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

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