STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 9072 Order No. R-8397

APPLICATION OF MOBIL PRODUCING TEXAS AND NEW MEXICO, INC. FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 4, 1987, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>17th</u> day of February, 1987, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Mobil Producing Texas and New Mexico, Inc., seeks authority to institute a waterflood project in the North Vacuum-Abo Pool on its State "N" Lease comprising the NW/4 of Section 10, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.

(3) The wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) The applicant proposes to inject fresh water into the perforated interval from 8714 feet to 8783 feet in its

-2-Case No. 9072 Order No. R-8397

State "N" Well No. 2 located 735 feet from the North line and 840 feet from the West line (Unit D) of Section 10, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.

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

(7) The injection should be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8650 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(8) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer-setting depth, to assure the integrity of such casing.

(9) The injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 1743 psi.

(10) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such a higher pressure will not result in migration of the injected waters from the formation.

(11) The operator should give advance notification to the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(12) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Mobil Producing Texas and New Mexico, Inc., is hereby authorized to institute a waterflood project on its State "N" Lease, as described below, by the injection -3-Case No. 9072 Order No. R-8397

of fresh water into the Abo formation through its existing State "N" Well No. 2 located 735 feet from the North line and 840 feet from the West line (Unit D) of Section 10, Township 17 South, Range 34 East, NMPM, North Vacuum-Abo Pool, Lea County, New Mexico:

> STATE "N" LEASE LEA COUNTY, NEW MEXICO

TOWNSHIP 10 SOUTH, RANGE 34 EAST, NMPM Section 10: NW/4

(2) Injection into said well shall be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8650 feet, with injection into the perforated interval from approximately 8714 feet to 8783 feet;

PROVIDED HOWEVER THAT, the casing-tubing annulus shall be filled with an inert fluid, and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's district office at Hobbs.

(3) The injection well or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1743 psi.

(4) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Abo formation.

(5) The operator shall notify the supervisor of the Hobbs district office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(6) The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage -4-Case No. 9072 Order No. R-8397

of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(7) The subject waterflood project is hereby designated the State "N" Lease Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(8) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(9) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAR Director

S E A L

fd/