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. 5072 Order No. R-4649

APPLICATION OF NORTHERN MINERALS, INC. FOR A WATERFLOOD PROJECT, MCKINLEY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 3, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 6th day of November, 1973, 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, Northern Minerals, Inc., seeks authority to institute a waterflood project in an undesignated Gallup Oil Pool by the injection of water into the Gallup formation through the casing of its Santa Fe Pacific Well No. 6-Y located 2013 feet from the North line and 2003 feet from the East line of Section 29, Township 16 North, Range 6 West, NMPM, McKinley County, New Mexico.
- (3) That the applicant has discovered a separate common source of supply in the Gallup formation by said well and that such pool lacks sufficient natural reservoir energy for economical primary production.
- (4) That applicant proposes to inject water into the Gallup formation through 4 1/2 inch casing into the open hole interval 734 feet to 744 feet in said well No. 6-Y in a six month pilot program to attempt to stimulate production.
- (5) That the mechanics of the injection in the proposed pilot project are feasible, provided that injection down the casing should be for a period no longer than 6 months and that injection pressure does not exceed 750 psi.

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- (6) That injection should be discontinued after the expiration of the 6 month pilot period or, if continued, should take place through tubing set in a packer located as close as practicable to the casing shoe at a pressure not in excess of 750 psi.
- (7) That the proposed waterflood project should result in the recovery of oil which would otherwise not be economically recovered, thereby preventing waste.
- (8) That 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.
- (9) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Northern Minerals, Inc., is hereby authorized to institute a waterflood project in an undesignated Gallup Oil Pool by the injection of water into the Gallup formation in the open-hole interval from 734 feet to 744 feet through the casing of its Santa Fe Pacific Well No. 6-Y, located 2013 feet from the North line and 2003 feet from the East line of Section 29, Township 16 North, Range 6 West, NMPM, McKinley County, New Mexico.

PROVIDED HOWEVER, that injection pressure shall not exceed 750 psi and injection of water shall be discontinued after the expiration of the 6-month pilot period or, if continued, take place through tubing set in a packer located as close as practicable to the casing shoe and the casing tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or other leak-sensing device in order to detect any leakage in the tubing, casing or packer.

- (2) That the operator shall immediately notify the supervisor of the Commission's Aztec district office of the failure of the casing, tubing or packer in the injection well or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.
- (3) That the subject waterflood project is hereby designated the Northern Minerals McKinley Gallup Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

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- (4) 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.
- (5) 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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

I.R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

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

SEAL