# 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. 5321 Order No. R-4875

APPLICATION OF NORTHERN MINERALS, INC. FOR POOL CREATION, SPECIAL POOL RULES, AND AN ADMINISTRATIVE PROCEDURE FOR WATERFLOOD EXPANSION, McKINLEY COUNTY, NEW MEXICO.

## ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 18, 1974, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 22nd day of October, 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, Northern Minerals, Inc., seeks the creation of a new oil pool for Gallup production in McKinley County, New Mexico, and the promulgation of special rules and regulations governing said pool to permit the drilling of wells therein without the requirement for the setting and cementing of surface casing.
- (3) That in its SFPRR Well No. 6Y, located 2013 feet from the North line and 2003 feet from the East line of Section 29, Township 16 North, Range 6 West, McKinley County, New Mexico, applicant has discovered a separate and common source of supply which should be designated the Miguel Creek-Gallup Oil Pool, that the vertical limits should be the Gallup formation and the horizontal limits of said pool should be the SE/4 NW/4 and the SW/4 NE/4 of said Section 29.
- (4) That the evidence presented indicates that there is currently no water-, oil-, or gas-bearing strata above the Gallup pay zone in said pool which would necessitate protection by the setting and cementing of surface casing.

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- (5) That the application for such special pool rules should be approved provided that the supervisor of the Commission's district office at Aztec should be authorized to require the setting and cementing of surface casing if the conditions outlined in Finding No. (4) above substantially change.
- (6) That by Commission Order No. R-4649 dated November 6, 1973, applicant was authorized a pilot waterflood project being the Northern Minerals McKinley Gallup Waterflood Project in said Miguel Creek-Gallup reservoir.
- (7) That the applicant seeks the establishment of administrative procedures whereby said project may be expanded by the drilling of additional injection and producing wells at orthodox and unorthodox locations and the conversion of wells to water injection through casing without tubing.
- (8) That such administrative procedures should be approved in order to permit the applicant necessary flexibility to expeditiously drill wells at unorthodox locations necessitated by topographic conditions; to permit the waterflood project to be developed in the most efficient pattern; and to permit the applicant to complete injection wells without the expense of unnecessary physical equipment provided that the conditions set out in Finding No. (4) above exist relative to such wells.
- (9) That the applicant should file periodic analyses of the injected waters.
- (10) That Commission Order No. R-4649 should be superseded and a new order entered authorizing applicant's waterflood project in said Miguel Creek-Gallup Oil Pool.

#### IT IS THEREFORE ORDERED:

- (1) That a new pool in McKinley County, New Mexico, classified as an oil pool for Gallup production, is hereby created and designated as the Miguel Creek-Gallup Oil Pool consisting of the following described area.
- (2) That wells may be drilled and completed in said pool without surface casing.

PROVIDED HOWEVER, that the supervisor of the Commission's district office at Aztec may require the use of surface casing when, in his judgment, the use of such casing is necessary to protect water-, oil-, or gas-bearing strata.

(3) That the applicant, Northern Minerals, Inc., is hereby authorized to institute a waterflood project in the Miguel Creek-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

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Section 29, Township 16 North, Range 6 West, NMPM, McKinley County, New Mexico.

PROVIDED HOWEVER, that injection pressure shall not exceed 750 psi.

- (4) That the operator shall immediately notify the supervisor of the Commission's Aztec district office of the failure of the casing, in the injection well or the leakage of water or oil from or around any producing, injection, or 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.
- (5) That the subject waterflood project is hereby designated the Northern Minerals McKinley Gallup Waterflood Project and shall be governed by the provisions of Rule 701, 702, and 703 of the Commission Rules and Regulations.
- (6) The Secretary-Director of the Commission is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations in the Northern Minerals McKinley Gallup Waterflood Project as may be necessary to complete an efficient production and injection pattern or for reasons of topography, provided said wells are drilled no closer than 330 feet to any lease line nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Commission, which application, if it seeks authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:
- (a) A plat showing the location of proposed well, all wells within the project area, and offset operators, locating wells which offset the project area.
- (b) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, and depth.
- (c) A letter stating that all offset operators, if any there be, to the proposed well have been furnished a complete copy of the application and the date of notification.
- (d) If injection is to be through casing, an analysis of the water to be injected.
- (e) A statement as to the existence or non-existence of water-, cil-, or gas-bearing strata above the Gallup pay zone.

The Secretary-Director may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received

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from all offset operators. The Secretary-Director may approve injection through casing without tubing in the proposed well if the waters to be injected are non-corrosive and of like quality to ground waters occuring above the Gallup pay, if any, or if there are no water-, oil-, or gas-bearing zones above the Gallup pay zone.

- (7) That the operator shall file annual analyses of waters injected through casing in wells in said project upon a change of source of injected water including the reinjection of produced water.
- (8) 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.
  - (9) That Commission Order No. R-4649 is hereby superseded.
- (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

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

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