STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS GOVERNOR POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE. NEW MEXICO 87504 (505) 827-5800

ORDER NO. WFX-584

APPLICATION OF ARCO OIL AND GAS COMPANY TO EXPAND ITS WATERFLOOD PROJECT IN THE HORSESHOE GALLUP OIL POOL IN SAN JUAN COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-6172, ARCO Oil and Gas Company has made application to the Division on May 11, 1989 for permission to expand its Horseshoe Gallup Waterflood Project in the Horseshoe Gallup Oil Pool in San Juan County, New Mexico.

NOW, on this 26th day of July, 1989, the Division Director finds that:

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection well is eligible for conversion to water injection under the terms of Rule 701.

(5) The proposed expansion of the above-referenced waterflood project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

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The applicant, ARCO Oil and Gas Company, be and the same is hereby authorized to inject water into the Gallup formation at approximately 1091 feet to approximately 1233 feet through 2 3/8-inch plastic lined tubing set in a packer at approximately 1060 feet in the following described well for purposes of secondary recovery to wit:

Horseshoe Gallup Well No. 1 660' FSL & 417' FEL Section 32, T-31 North, R-16 West, NMPM, San Juan County, New Mexico.

IT IS FURTHER ORDERED THAT:

The operator shall 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.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 218 psi.

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 Gallup formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage. Administrative Order WFX-584 ARCO Oil and Gas Company July 26, 1989 Page 3

Prior to commencing injection operations into the subject well, lthe applicant shall be required to obtain the appropriate Federal and/or Indian injection permit in accordance with the requirements of 40 CFR Part 147.

The subject well shall be governed by all provisions of Division Order No. R-6172 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

<u>PROVIDED FURTHER THAT</u>, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 26th day of July, 1989.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMA

WILLIAM J. LEMA Director

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