

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

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ORDER NO. WFX-588

APPLICATION OF ARCH PETROLEUM, INC. TO EXPAND ITS WATERFLOOD PROJECT IN THE ARTESIA QUEEN GRAYBURG SAN ANDRES POOL IN EDDY COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-966, as amended, Arch Petroleum, Inc. has made application to the Division on May 8, 1989 for permission to expand its Artesia Flood Project No. 3 Waterflood Project in the Artesia Queen Grayburg San Andres Pool in Eddy County, New Mexico.

NOW, on this 12th day of October, 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 wells are 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:

The applicant, Arch Petroleum, Inc., be and the same is hereby authorized to inject water into the Grayburg formation through the gross interval from approximately 2008 feet to approximately 2046 feet through 2 3/8-inch tubing set in a packer located within 100 feet of the uppermost injection perforations or within 100 feet of the production casing shoe in the wells shown on Exhibit "A" attached hereto for purposes of secondary recovery.

Administrative Order WFX-588
Arch Petroleum, Inc.
October 13, 1989
Page 2

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.

Prior to commencing injection operation into the Resler Yates State Well No. 55, as shown on Exhibit "A", said well shall be cased and cemented in a manner that will ensure that the injected fluid will be confined to the injection interval, and that fresh water will be protected.

Prior to commencing injection operations into any of the wells shown on Exhibit "A", the Resler Yates Well No. 48, located in Unit P of Section 29, Township 18 South, Range 28 East, shall be re-entered and re-plugged in a manner satisfactory to the supervisor of the Division's Artesia district office.

Prior to commencing injection operations into any of the wells shown on Exhibit "A", the applicant shall demonstrate to the supervisor of the Division's Artesia district office, that the Resler Yates State Well No. 61, located in Unit C of said Section 32, is cased and cemented in a manner that will confine the injected fluid to the injection zone, and that will ensure fresh water is protected.

Prior to commencing injection operations into the wells shown on Exhibit "A", the casing in each well shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

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 wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than that pressure as shown on Exhibit "A".

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Grayburg formation. Such proper showing shall consist of a valid step-rate tests run in accordance with and acceptable to this office.

Administrative Order WFX-588
Arch Petroleum, Inc.
October 13, 1989
Page 3

The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment, of the mechanical integrity tests and of any work performed on the wells as described above so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

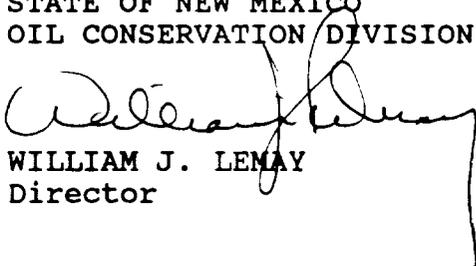
The subject wells shall be governed by all provisions of Division Order No. R-966, as amended, and Rules 701-708 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, 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 progress reports of the project in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 12th day of October, 1989.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

S E A L

Exhibit "A"
Arch Petroleum, Inc.
Order No. WFX-588

Well Name and Location	Maximum Surface Injection Pressure
Resler Yates State No. 370 1650' FNL & 990' FEL (Unit H), Section 32	405 PSIG
Resler Yates State No. 380 2310' FNL & 990' FEL (Unit H), Section 32	407 PSIG
Resler Yates State No. 379 2150' FNL & 1800' FEL (Unit G), Section 32	403 PSIG
Resler Yates State No. 55 960' FNL & 1440' FEL (Unit B), Section 32	402 PSIG

All in Township 18 South, Range 28 East, NMPM,
Eddy County, New Mexico