STATE OF NEW **MEXICO**
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 12756
ORDER NO. R-11722

APPLICATION OF ARCH PETROLEUM, INC. FOR APPROVAL OF A PILOT PRESSURE MAINTENANCE **PROJECT AND TO QUALIFY THE PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE ENHANCED OIL RECOVERY ACT, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on November 1, 2001, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of February, 2002, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Arch Petroleum, Inc. ("Arch"), seeks authority to institute a pilot pressure maintenance project within the Teague Paddock-Blinebry Pool on its C. E. LaMunyon Lease comprising the E/2 NE/4 of Section 21, and the W/2 NW/4 of Section 22, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, by the injection of water into the Paddock formation through the C. E. LaMunyon No. 79 to be drilled at a location 1700 feet from the North line and 10 feet from the East line (Unit H) of Section 21.

(3) Arch testified that the proposed pilot pressure maintenance project area comprises a single Federal lease (Lease No. LC-030187), and that the interest ownership within the project area is common throughout.

(4) Arch presented geologic evidence that demonstrates:

(a) the proposed pilot pressure maintenance project is located within the Teague Paddock-Blinebry Pool;

(b) the Teague-Blinebry Pool was created by Division Order No. R-3280 dated July 24, 1967. By Order No. R-10776 dated February 28, 1997, the vertical limits of the Teague-Blinebry Pool were extended to include the Paddock formation;

(c) the Blinebry formation within this pool is characterized by low porosity and permeability, and is fairly depleted at this time;

(d) development of the Paddock formation in this area did not occur until the mid to late 1990's;

(e) the Paddock formation in the proposed project area has not reached the advanced or stripper state of depletion;

(f) injection into the C. E. LaMunyon No. 79 will initially be limited to the "P4" and "P5" intervals of the Paddock formation. These producing Paddock intervals are continuous throughout the proposed project area; and

(g) injection into the Blinebry formation within this project may occur at a later time.

(5) Arch presented engineering evidence that demonstrates:

(a) it will initially utilize four producing wells and one injection well within the pilot pressure maintenance project. The producing wells are the C. E. LaMunyon Wells No. 51, 49, 54 and 30;

(b) within the four project producing wells, it will plug off the Blinebry formation and produce the Paddock formation only;

(c) the four project producing wells currently produce at an average rate of approximately 15 barrels of oil per day;

(d) project costs are estimated to be approximately $675,000; and

(e) the implementation of a pilot pressure maintenance project within the project area should result in the recovery of an additional 60,000 barrels of oil and 150 MMCF of gas from the Paddock formation.

(6) Application of the proposed pilot pressure maintenance project should result in the recovery of additional hydrocarbons, including additional crude oil, from the Paddock formation of the Teague Paddock-Blinebry Pool within the project area which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(7) Injection into the C. E. LaMunyon No. 79 should occur into the perforated interval from approximately 5,098 feet to 5,228 feet.

(8) 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) Injection should be accomplished through 2 7/8 inch internally plastic-lined tubing installed in a packer set at a depth of 5,050 feet. The casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(10) The injection well or pressurization system should be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1020 psi.

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

(12) Arch testified that prior to commencing injection operations into the C. E. LaMunyon No. 79, it will plug and abandon the C. E. LaMunyon Well No. 47 located

2180 feet from the North line and 560 feet from the West line (Unit E) of Section 22, Township 23 South, Range 37 East, NMPM, in a manner approved by the Supervisor of the Division's Hobbs District Office.

(13) The operator should give advance notice to the Supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed; (ii) the mechanical integrity pressure test will be conducted on the C. E. LaMunyon No. 79; and (iii) plugging operations will be conducted on the C. E. LaMunyon No. 47, so these operations may be witnessed.

(14) The operator should immediately notify the Supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in the injection well or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and should take all steps as may be timely and necessary to correct such failure or leakage.

(15) The proposed pilot pressure maintenance project should be approved and the project should be governed by Division Rules No. 701 through 708.

(16) The project oil allowable should be established at 428 barrels of oil per day. The project allowable may be produced by any producing well in the project area in any proportion.

(17) The injection authority granted herein for the C. E. LaMunyon No. 79 should terminate one year after the date of this order if the operator has not commenced injection operations into the well; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

(18) The applicant seeks to qualify the proposed pilot pressure maintenance project as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5).

(19) The evidence presented demonstrates that the proposed pilot pressure maintenance project meets all the criteria for approval.

(20) The proposed project area has been so far depleted that it is prudent to apply the proposed enhanced recovery techniques at this time to maximize ultimate recovery of crude oil from the project area.

(21) The proposed pilot pressure maintenance project is economically and technically reasonable, and application therefore has not been prematurely filed.

(22) The approved project area should initially comprise the E/2 NE/4 of Section 21 and the W/2 NW/4 of Section 22; provided, however, the "project area" and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the applicant in its demonstration of a positive production response.

(23) To be eligible for the EOR tax rate, the operator should advise the Division of the date and time water injection commences within the pilot pressure maintenance project. At that time, the Division will certify the project to the New Mexico Taxation and Revenue Department.

(24) At such time as a positive production response occurs, and within five years from the date the project was certified to the New Mexico Taxation and Revenue Department, the applicant must apply to the Division for certification of a positive production response. This application shall identify the area benefiting from enhanced oil recovery operations and the specific wells eligible for the EOR tax rate. The Division may review the application administratively or set it for hearing. Based upon the evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those wells that are eligible for the EOR tax rate.

IT IS THEREFORE ORDERED THAT:

(1) Arch Petroleum, Inc. is hereby authorized to institute a pilot pressure maintenance project within the Teague Paddock-Blinebry Pool on its C. E. LaMunyon Lease comprising the E/2 NE/4 of Section 21, and the W/2 NW/4 of Section 22, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, by the injection of water into the Paddock formation through the C. E. LaMunyon No. 79 to be drilled at a location 1700 feet from the North line and 10 feet from the East line (Unit H) of Section 21.

(2) Injection into the C. E. LaMunyon No. 79 shall occur into the perforated interval from approximately 5,098 feet to 5,228 feet.

(3) 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 from injection, production, or plugged and abandoned wells.

(4) Injection shall be accomplished through 2 7/8 inch internally plastic-lined tubing installed in a packer set at approximately 5,050 feet. The casing-tubing annulus

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

(5) The injection well or pressurization system shall be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1020 psi.

(6) The Division Director may administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(7) Prior to commencing injection operations, the casing shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.

(8) Prior to commencing injection operations into the C. E. LaMunyon No. 79, the applicant shall plug and abandon the C. E. LaMunyon Well No. 47 located 2180 feet from the North line and 560 feet from the West line (Unit E) of Section 22, Township 23 South, Range 37 East, NMPM, in a manner approved by the Supervisor of the Division's Hobbs District Office.

(9) The operator shall give advance notice to the Supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed; (ii) the mechanical integrity pressure test will be conducted on the C. E. LaMunyon No. 79; and (iii) plugging operations will be conducted on the C. E. LaMunyon No. 47, so these operations may be witnessed.

(10) The operator shall immediately notify the Supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in the injection well or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and shall take all steps as may be timely and necessary to correct such failure or leakage.

(11) The project is hereby designated the LaMunyon Paddock Pressure Maintenance Project, and the applicant shall conduct injection operations in accordance with Division Rules No. 701 through 708, and shall submit monthly progress reports in accordance with Division Rules No. 706 and 1115.

(12) The project oil allowable is hereby established at 428 barrels of oil per day. The project allowable may be produced by any producing well in the project area in any proportion.

(13) The LaMunyon Paddock Pressure Maintenance Project is hereby certified as an "Enhanced Oil Recovery Project." The project area shall initially comprise the E/2 NE/4 of Section 21 and the W/2 NW/4 of Section 22; provided, however, the "project area" and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the applicant in its demonstration of a positive production response.

(14) To be eligible for the EOR tax rate, the operator shall advise the Division of the date and time water injection commences within the pressure maintenance project. At that time, the Division will certify the project to the New Mexico Taxation and Revenue Department.

(15) At such time as a positive production response occurs, and within five years from the date the project was certified to the New Mexico Taxation and Revenue Department, the applicant must apply to the Division for certification of a positive production response. This application shall identify the area benefiting from enhanced oil recovery operations and the specific wells eligible for the EOR tax rate. The Division may review the application administratively or set it for hearing. Based upon the evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those wells that are eligible for the EOR tax rate.

(16) The injection authority granted herein for the C. E. LaMunyon No. 79 shall terminate one year after the date of this order if the operator has not commenced injection operations into the well; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

(17) Jurisdiction is hereby 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

LORI WROTENBERY
Director

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