## 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. 10140 ORDER NO. R-9353

# APPLICATION OF OXY USA, INC. FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO

# ORDER OF THE DIVISION

#### **BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on October 31, 1990 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>7th</u> day of November, 1990, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, OXY USA, Inc., seeks authority to institute a waterflood project in the Mescalero-San Andres Pool on its State "BN" Lease comprising the SW/4 of Section 14, Township 10 South, Range 32 East, NMPM, Lea County, New Mexico.

(3) The four producing wells in the proposed project area are in an advanced state of depletion and should therefore be properly classified as "stripper wells."

(4) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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(5) Initially the applicant proposes to reinject produced San Andres water into perforations across the San Andres formation in its Well No. 5 to be drilled 1410 feet from the South line and 1405 feet from the West line (Unit K) of said Section 14. However, should it become necessary the applicant seeks to supplement the injection stream with fresh water.

(6) 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 into other formations or onto the surface from injection, production or plugged and abandoned wells.

(7) Injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 4050 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

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

(9) The injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 810 psi.

(10) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the San Andres formation.

(11) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(12) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

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#### IT IS THEREFORE ORDERED THAT:

(1) The applicant, OXY USA, Inc., is hereby authorized to institute a waterflood project on its State "BN" Lease, as described below, by the injection of San Andres produced water and fresh water into the Mescalero-San Andres Pool through its Well No. 5 to be drilled 1410 feet from the South line and 1405 feet from the West line (Unit K) of Section 14, Township 10 South, Range 32 East, NMPM, Lea County, New Mexico:

## STATE "BN" WATERFLOOD PROJECT LEA COUNTY, NEW MEXICO <u>TOWNSHIP 10 SOUTH, RANGE 32 EAST, NMPM,</u> Section 14: SW/4

(2) Injection into said well shall be accomplished through 2 3/8-inch plasticlined tubing installed in a packer set at approximately 4050 feet, with injection into perforations through the San Andres formation.

<u>PROVIDED HOWEVER THAT</u>, the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

<u>PROVIDED FURTHER THAT</u>, prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs District Office.

(3) The injection well or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 810 psi.

(4) 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 San Andres formation.

(5) The operator shall notify the supervisor of the Hobbs District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

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(6) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(7) The subject waterflood project is hereby designated the State "BN" Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(8) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(9) Jurisdiction of this cause is 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

WILLIAM J. LEMAY Director

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