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. 10573
Order No. R-9848

APPLICATION OF TEXACO EXPLORATION & PRODUCTION INC. FOR WATERFLOOD EXPANSION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 4, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 18th day of February, 1993, 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) Division Case Nos. 10572 and 10573 were consolidated at the time of the hearing for the purpose of testimony.

(3) By Order No. R-4521 dated May 17, 1973, the Division authorized Texaco Inc. to institute a waterflood project in its Rhodes Yates Unit Area, comprising portions of Sections 21, 27 and 28, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico, by the injection of water into the Rhodes Yates-Seven Rivers Pool through seven initial injection wells.

(4) The applicant, Texaco Exploration & Production Inc., seeks authority to expand its Rhodes Yates Unit Waterflood Project by converting the Rhodes Yates Unit Well Nos. 8 and 13 located, respectively, 1875 feet from the North line and 765 feet from the West line (Unit E), and 660 feet from the South and West lines (Unit M), both in Section 27, Township 26 South, Range 37 East, NMPM, Rhodes Yates-Seven Rivers Pool, Lea County, New Mexico, from producing oil wells to water injection wells.

(5) The application to expand the Rhodes Yates Unit Waterflood Project was originally filed on August 31, 1992, for Division administrative approval, however, an objection to the proposed expansion from Doyle Hartman, Oil Operator, necessitated the placement of this application on the Division Examiner Docket.

(6) Doyle Hartman, Oil Operator, appeared through counsel at the hearing but presented no evidence or testimony in this case.

(7) The Rhodes Yates Unit Waterflood Project is located directly adjacent to the applicant's W. H. Rhodes "B" Federal Waterflood Project approved by Division Order No. R-2748 and located in portions of Sections 26 and 27, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico.

(8) Within the Rhodes Yates Unit Well No. 8, the applicant proposes to inject water into the Rhodes Yates-Seven Rivers Pool through the perforated and open hole interval from approximately 3,092 feet to 3,320 feet.

(9) Within the Rhodes Yates Unit Well No. 13, the applicant proposes to inject into the Rhodes Yates-Seven Rivers Pool through the perforated interval from approximately 3,167 feet to 3,349 feet.

(10) The proposed waterflood expansion, effectively carried out in conjunction with the drilling of infill producing wells, will enable the applicant to establish an efficient production and injection pattern which should result in the recovery of additional oil reserves from the project area, thereby preventing waste.

(11) The applicant 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.

(12) The injection of water into the Rhodes Yates Unit Well Nos. 8 and 13 should be accomplished through 2 3/8-inch internally cement-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation; 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.

(13) Prior to commencing injection operations into the Rhodes Yates Unit Well Nos. 8 and 13, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(14) The injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 610 psi.

(15) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described in Finding No. (14) above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(16) 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 tests in order that the same may be witnessed.

(17) The proposed waterflood expansion should be approved and waterflood operations should be governed by the provisions of Division Order No. R-4521 and Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Texaco Exploration & Production Inc., is hereby authorized to expand its Rhodes Yates Unit Waterflood Project by converting the Rhodes Yates Unit Well Nos. 8 and 13 located, respectively, 1875 feet from the North line and 765 feet from the West line (Unit E), and 660 feet from the South and West lines (Unit M), both in Section 27, Township 26 South, Range 37 East, NMPM, Rhodes Yates-Seven Rivers Pool, Lea County, New Mexico, from producing oil wells to water injection wells.

(2) Injection into the Rhodes Yates Unit Well No. 8 shall occur into the perforated and open hole interval from approximately 3,092 feet to 3,320 feet, and injection into the Rhodes Yates Unit Well No. 13 shall occur into the perforated interval from approximately 3,167 feet to 3,349 feet.

(3) The applicant 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 into the Rhodes Yates Unit Well Nos. 8 and 13 shall be accomplished through 2 3/8-inch internally cement-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation; the casing-tubing annulus shall 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.

(5) Prior to commencing injection operations into the Rhodes Yates Unit Well Nos. 8 and 13, the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(6) The injection wells or pressurization system shall be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 610 psi.

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

(8) The operator shall 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 tests in order that the same may be witnessed.

(9) Waterflood operations shall be governed by the provisions of Division Order No. R-4521 and Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(10) 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

WILLIAM J. LEMAY
Director

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