Entired april 5, 1983

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

> CASE NO. 7824 Order No. R-5530-D

APPLICATION OF TEXACO INC. FOR AMENDMENT OF DIVISION ORDER NO. R-5530 AND APPROVAL OF A TERTIARY OIL RECOVERY PROJECT UNDER THE CRUDE OIL WINDFALL PROFITS TAX ACT OF 1980, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 16, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 5th day of April, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Texaco Inc., seeks authority to convert its Central Vacuum Unit Pressure Maintenance Project (water injection) to a polymer-augmented waterflood, and pursuant to Section 212.78 of the United States Department of Energy Regulations and Section 4993 of the Internal Revenue Code seeks certification of said project as a Qualified Tertiary Oil Recovery Project.

(3) That said pressure maintenance project lies within the Vacuum Grayburg-San Andres Pool, Lea County, New Mexico.

(4) That said pool was discovered in May, 1929, by Socony Vacuum Oil Company, experienced substantial development thereafter with waterflooding being initiated during 1977. -2-Case No. 7824 Order No. R-5530-D

(5) That the Texaco Inc. Central Vacuum Unit Pressure Maintenance Project (water injection) consisting of approximately 3046 acres was approved by Division Order No. R-5530 on September 20, 1977 and water injection was commenced within said project beginning in 1977.

(6) That the applicant now seeks approval for the installation of a tertiary recovery polymer-augmented water-flood by the injection of polyacrylamide polymers into 81 wells and the designation of a qualifying tertiary recovery project area all within said pressure maintenance project.

(7) That the New Mexico Oil Conservation Division has been designated by the Governor of the State of New Mexico as the appropriate agency to approve Qualified Tertiary Recovery Projects in New Mexico for purpose of the Crude Oil Windfall Profits Tax Act of 1980.

(8) That the proposed Qualifying Tertiary Project Area (QTP Area) lies wholly within said Central Vacuum Unit Pressure Maintenance Project in the Texaco Vacuum Grayburg San Andres Unit Area and consists of the following described acreage:

> TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM Section 25: S/2 and SE/4 NE/4 Section 36: All TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM Section 30: All Section 31: N/2, SW/4, and SW/4 SE/4 TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM Section 12: N/2 NE/4 TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM Section 6: All

Section 7: NW/4 and NW/4 NE/4

containing 3046 acres, more or less.

(9) That the proposed project is a tertiary recovery method described in Section 212.78(c) of the Department of Energy Regulations and as defined in Section 4993 of the Internal Revenue Code.

(10) That the proposed Tertiary Recovery Project is expected to result in the recovery of at least an additional 2,700,000 barrels of incremental tertiary crude oil which the

-3-Case No. 7824 Order No. R-5530-D

Division finds is more than an insignificant increase in the ultimate recovery of crude oil.

(11) That the injection of polyacrylamide polymers will improve mobility ratio and vertical conformance, and the Texaco QTP Area project is designed, and will be operated, in accordance with sound engineering principles.

(12) That the entire Central Vacuum Unit Pressure Maintenance Project will be affected and it is adequately delineated.

(13) That the QTP Area tertiary recovery operations beginning date is after May, 1979, with scheduled polymer injection to begin during late March or April, 1983.

(14) That past production from the Vacuum Grayburg-San Andres Pool underlying the Central Vacuum Unit Area is 53,500,000 barrels through April, 1983; future recovery thereafter without the proposed tertiary recovery project is estimated to be 46,467,000 barrels of oil; and with the proposed tertiary recovery project an additional 2,700,000 barrels of incremental tertiary oil will be recovered resulting in a total production of 49,167,000 barrels of oil.

(15) That the Central Vacuum Unit presently has thereon 76 producing wells, 81 injection wells, three plugged and abandoned wells, and four water supply wells with the project being fully developed on 20-acre well spacing.

(16) That all injection wells located in the Central Vacuum Unit will receive polymer-augmented injection for an extended period of time, (estimated to be 20 months) until a 10 percent pore volume of polymer/water solution is injected.

(17) That the projected future expense for the proposed tertiary project is six million dollars (\$6,000,000) for the cost of the polymer and associated chemicals and one hundred eighty thousand dollars (\$180,000) is estimated for polymer handling equipment.

(18) That the proposed tertiary recovery operations
within said QTP Area meet all requirements of Section 4993(C)
(2)(A), (B) and (C) of the Internal Revenue Code.

(19) That the approval of this application will prevent waste, protect correlative rights and promote conservation, provided however, that the production limitation provisions of Rules 13 through 15 of Division Order No. R-5530, dated -4-Case No. 7824 Order No. R-5530-D

September 20, 1977, as amended by Division Order No. R-5530-A, dated July 25, 1978, and Order No. R-5530-C, dated October 1, 1981, should remain in effect.

IT IS THEREFORE ORDERED:

(1) That effective April 1, 1983, or the first day of the month following initiation of polymer injection, the Qualifying Tertiary Recovery Project Area, described in Finding No. (8) of this Order, being the Texaco Inc. Central Vacuum Unit Area, Central Vacuum Grayburg-San Andres Pool, Lea County, New Mexico, is hereby approved as a Qualified Tertiary Recovery Project under the Crude Oil Windfall Profits Tax Act of 1980.

(2) That the applicant, Texaco Inc., is hereby authorized to inject water and polyacrylamide polymers into approved injection wells in this unit, and that Division Order No. R-5530 dated September 1, 1977, is hereby amended to allow the injection of said polymers.

IT IS FURTHER ORDERED:

(1) That the production limitation provisions of Rules 13 through 15 of Division Order No. R-5530, as amended by Division Orders Nos. R-5530-A and R-5530-C, shall remain in full force and effect until further order of the Division.

(2) That 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 ~en1 JOE D. RAMEY Director

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