

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. 10820
ORDER NO. R-9971

**APPLICATION OF PETROLEUM DEVELOPMENT COMPANY FOR A HIGH
ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT AND FOR
SPECIAL OPERATING RULES THEREFOR, CHAVES COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 9, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 22nd day of September, 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. 10818, 10819, 10820 and 10821 were consolidated at the time of the hearing for the purpose of testimony.

(3) The applicant, Petroleum Development Corporation, seeks authority to initiate a short radius high angle/horizontal directional drilling pilot project in the Cato-San Andres Pool underlying the NW/4 NE/4 of Section 6, Township 8 South, Range 31 East, NMPM, Chaves County, New Mexico, being a standard 40-acre oil spacing and proration unit for said pool.

(4) The applicant further seeks authority to re-enter and horizontally drill the previously plugged and abandoned Exxon Corporation Wattam Federal Well No. 1 located at a standard surface location 660 feet from the North line and 1980 feet from the East line (Unit B) of Section 6, in the following unconventional manner:

Squeeze perforations from 3,678 feet to 3,756 feet and 3,641 feet to 3,648 feet, mill casing from approximately 3,600 feet to 3,650 feet, set cement plug and kick off from the vertical at a depth of approximately 3,630 feet and drill in an undetermined direction building angle to approximately 85 degrees so as to penetrate the top of the producing interval within the San Andres formation. Continue drilling horizontally an undetermined distance so as to bottom said wellbore no closer than 100 feet from the outer boundary of the NW/4 NE/4 of Section 6.

(5) The applicant further seeks the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area limiting the horizontal or producing portion of the wellbore such that it can be no closer than 100 feet from the outer boundary of the NW/4 NE/4 of Section 6.

(6) The proposed well is located within the Cato-San Andres Pool which is currently governed by Statewide Rules and Regulations which require standard 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit, a standard oil allowable of 80 barrels of oil per day, and a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

(7) Through its evidence and testimony, the applicant demonstrated that the proposed high angle wellbore, which is experimental in nature, should encounter a substantially greater number of natural fractures within the San Andres formation than would a conventional wellbore, which should substantially increase the productivity of the subject well and which should ultimately result in the recovery of a greater amount of oil and gas from the proposed project area, thereby preventing waste.

(8) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(9) In the interest of conservation and prevention of waste, the application of Petroleum Development Corporation for a short radius high angle/horizontal directional drilling project should be approved.

(10) According to applicant's evidence, the proposed 100 foot setback from the outer boundary of the project area will allow the flexibility to determine the direction of the proposed horizontal wellbore, and will also allow the flexibility to extend the wellbore the maximum distance.

(11) The applicant should be required to determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(12) The applicant should notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(13) The applicant should be required to submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Petroleum Development Corporation is hereby authorized to initiate a short radius high angle/horizontal directional drilling pilot project in the Cato-San Andres Pool underlying the NW/4 NE/4 of Section 6, Township 8 South, Range 31 East, NMPM, Chaves County, New Mexico, being a standard 40-acre oil spacing and proration unit for said pool.

(2) The applicant is further authorized to re-enter and horizontally drill the previously plugged and abandoned Exxon Corporation Wattam Federal Well No. 1 located at a standard surface location 660 feet from the North line and 1980 feet from the East line (Unit B) of Section 6, in the following unconventional manner:

Squeeze perforations from 3,678 feet to 3,756 feet and 3,641 feet to 3,648 feet, mill casing from approximately 3,600 feet to 3,650 feet, set cement plug and kick off from the vertical at a depth of approximately 3,630 feet and drill in an undetermined direction building angle to approximately 85 degrees so as to penetrate the top of the producing interval within the San Andres formation. Continue drilling horizontally an undetermined distance so as to bottom said wellbore no closer than 100 feet from the outer boundary of the NW/4 NE/4 of Section 6.

(3) The horizontal or producing portion of the wellbore shall be located no closer than 100 feet from the outer boundary of the NW/4 NE/4 of Section 6.

(4) The applicant shall determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(5) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

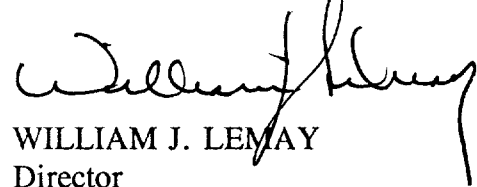
(6) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

(7) Jurisdiction of this cause 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