# 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. 10713 Order No. R-9897

APPLICATION OF PETROLEUM DEVELOPMENT CORPORATION FOR A HORIZONTAL/HIGH ANGLE 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 April 22, 1993, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 19th day of May, 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) The applicant, Petroleum Development Corporation, seeks authority to initiate a short radius high angle/horizontal directional drilling (drainhole) pilot project in the Tomahawk-San Andres Pool underlying the NE/4 SE/4 of Section 25, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, being a standard 40-acre oil spacing and proration unit for said pool.
- (3) The Tomahawk-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.

- (4) The applicant is the owner and operator of the Strange Federal Well No. 4, located 1980 feet from the South line and 660 feet from the East line (Unit I) of said Section 25, which is currently completed in and producing from the Tomahawk-San Andres Pool.
- (5) The applicant at this time proposes to "squeeze-off" and abandon the present perforations and recomplete said well by side-tracking out of the casing, build angle with a short radius curve to approximately 90 degrees and continue to drill a horizontal drainhole in the Tomahawk-San Andres Pool.
- (6) 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 extent of a drainhole or producing portion of the wellbore such that it can be no closer than 100 feet from the outer boundary of the NE/4 SE/4 of Section 25.
- (7) Through its evidence and testimony, the applicant demonstrated that the proposed drainhole 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 high angle/horizontal directional drilling project in the NE/4 SE/4 of said Section 25 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 number and direction(s) of drainholes from the vertical portion of the wellbore, and will also allow the flexibility to extend drainholes 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 drainhole 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 (drainhole) pilot project in the Tomahawk-San Andres Pool underlying the NE/4 SE/4 of Section 25, Township 7 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 "squeeze-off" and abandon the present perforated interval and recomplete said well by side-tracking out of the casing, build angle with a short radius curve to approximately 90 degrees and continue to drill a horizontal drainhole in the Tomahawk-San Andres Pool.
- (3) The horizontal or producing portion of the wellbore shall be located no closer than 100 feet from the outer boundary of the NE/4 SE/4 of Section 25.
- (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 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