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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. 10680
Order No. R-9864

APPLICATION OF MERIDIAN OIL INC. FOR
A HIGH ANGLE/HORIZONTAL DIRECTIONAL
DRILLING PILOT PROJECT, SPECIAL
OPERATING RULES THEREFOR, AND AN
UNORTHODOX OIL WELL LOCATION, RIO
ARRIBA COUNTY, NEW MEXICO.

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ORDER OF THE DIVISION

BY THE DIVISION:

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

NOW, on this 19th day of March, 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, Meridian Oil Inc., seeks authority to initiate a high angle/horizontal directional drilling pilot project in the Gavilan-Mancos Oil Pool underlying all of Section 8, Township 26 North, Range 2 West, NMPM, Rio Arriba County, New Mexico, being a standard 640-acre spacing and proration unit for said pool.

(3) The applicant further seeks authority to drill its Cheney Federal "B" Well No. 2 at a standard surface location 1650 feet from the South line and 990 feet from the West line (Unit L) of Section 8 in the following unconventional manner:

Drill vertically to a depth of approximately 6,663 feet, kick off from the vertical at this depth and drill in a northeasterly direction building angle to approximately 84 degrees so as to penetrate the top of the Niobrara "B" interval at a true vertical depth of approximately 7,075 feet. Continue drilling a distance of 3,150 feet at such an angle so as to bottom said wellbore in the Niobrara "C" interval at a true vertical depth of approximately 7,410 feet.

(4) 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 wellbore and its producing interval such that it can be no closer than 790 feet from the outer boundary of the spacing unit, nor closer than 2,970 feet from the North line of Section 8.

(5) The proposed well is located within the Gavilan-Mancos Oil Pool and is therefore subject to the special rules and regulations for said pool as promulgated by Division Order No. R-7407, as amended, which require standard 640-acre spacing and proration units with wells to be located no closer than 790 feet from the outer boundary of the spacing unit nor closer than 330 feet from any governmental quarter-quarter section line. Such rules further provide that a second well drilled on a standard proration unit shall not be drilled in the same quarter section as the existing well and shall be located no closer than 1,650 feet from said well.

(6) Within Section 8 the applicant currently operates the Cheney Federal "B" Well No. 1 located 790 feet from the North line and 990 feet from the East line (Unit A), which is currently completed in the Gavilan-Mancos Oil Pool. All of Section 8 is currently dedicated to the aforesaid Cheney Federal "B" Well No. 1.

(7) The Niobrara "B" and "C" members of the Gallup formation are the potentially productive zones within the pilot project area and are characterized by low permeability and interconnected fracture systems.

(8) Through its evidence and testimony, the applicant demonstrated that the proposed high angle wellbore should encounter a substantially greater number of natural fractures within the Niobrara "B" and "C" members of the Gallup 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.

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

(10) In the interest of conservation and prevention of waste, the application of Meridian Oil Inc. for a high angle/horizontal directional drilling project should be approved.

(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 Aztec 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 Aztec offices of the Division.

(14) The allowable assigned to Section 8 in the Gavilan-Mancos Oil Pool should be shared by the Cheney Federal "B" Well Nos. 1 and 2, provided however, the applicant should be authorized to produce said allowable from either well in any proportion.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Meridian Oil Inc. is hereby authorized to initiate a high angle/horizontal directional drilling pilot project in Section 8, Township 26 North, Range 2 West, NMPM, Gavilan-Mancos Oil Pool, Rio Arriba County, New Mexico, by drilling its Cheney Federal "B" Well No. 2 at a standard surface location 1650 feet from the South line and 990 feet from the West line (Unit L) of Section 8 in the following unconventional manner:

Drill vertically to a depth of approximately 6,663 feet, kick off from the vertical at this depth and drill in a northeasterly direction building angle to approximately 84 degrees so as to penetrate the top of the Niobrara "B" interval at a true vertical depth of approximately 7,075 feet. Continue drilling a distance of 3,150 feet at such an angle so as to bottom said wellbore in the Niobrara "C" interval at a true vertical depth of approximately 7,410 feet.

(2) All of Section 8 shall be dedicated to the above-described well and to the existing Cheney Federal "B" Well No. 1 forming a standard 640-acre spacing and proration unit in the Gavilan-Mancos Oil Pool.

(3) The wellbore and its producing interval shall be located no closer than 790 feet from the outer boundary of the project area nor closer than 2,970 feet from the North line of Section 8.

(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 Aztec 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 Aztec offices of the Division.

(7) The allowable assigned to Section 8 in the Gavilan-Mancos Oil Pool shall be shared by the Cheney Federal "B" Well Nos. 1 and 2, provided however, the applicant shall be authorized to produce said allowable from either well in any proportion.

(8) 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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