

**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. 10679
Order No. R-9863**

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

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 Undesignated Northeast Ojito Gallup-Dakota Oil Pool underlying the N/2 of Section 23, Township 26 North, Range 3 West, NMPM, Rio Arriba County, New Mexico, thereby creating a non-standard 320-acre oil spacing and proration unit for said pool.

(3) The applicant proposes to drill its Jicarilla "99" Well No. 17 from an unorthodox surface location 150 feet from the North line and 670 feet from the West line (Unit D) of Section 23 in the following unconventional manner:

Drill vertically to a depth of approximately 6,704 feet, kick off from the vertical at this depth and drill in a southeasterly 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 7,085 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 7,325 feet.

(4) The applicant further seeks:

- a) the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area limiting the horizontal displacement of said well's producing interval such that it can be no closer than 790 feet from the east and west and no closer than 330 feet from the north and south boundaries of the proposed spacing unit;
- b) approval of a 320-acre non-standard oil proration unit comprising the N/2 of Section 23;
- c) a special project allowable equal to two times the current allowable in the Northeast Ojito Gallup-Dakota Oil Pool.

(5) The subject well is located within one mile of the boundaries of the Northeast Ojito Gallup-Dakota Oil Pool and is therefore subject to the Special Rules and Regulations for said pool as promulgated by Division Order No. R-8188-A, which require standard 160-acre spacing and proration units with wells to be located no closer than 790 feet from the outer boundary of the proration unit, nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary.

(6) 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.

(7) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore should encounter a substantially greater number of natural fractures within the Niobrara member 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.

(8) According to applicant's evidence and testimony, the proposed unorthodox surface location is necessitated by the presence of forested area and archaeological sites.

(9) In addition, the proposed unorthodox surface location will result in the subject wellbore penetrating the Niobrara "B" member of the Gallup formation at an unorthodox bottomhole location approximately 330 feet from the North line and 987 feet from the West line of Section 23.

(10) According to further evidence and testimony, the interest ownership within the N/2 of Section 23 and the affected offset acreage to the north in Section 14 is identical.

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

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

(13) The evidence indicates that the horizontal or producing portion of the subject wellbore, as proposed, should penetrate both the NW/4 and the NE/4 of Section 23.

(14) It has been the practice of the Division in previously heard cases of this nature to assign an allowable based upon the number of standard proration units actually contacted by the wellbore.

(15) The subject well and project area should be assigned an allowable in conformance with current Division policy. Based upon the evidence presented, the subject well should be assigned an allowable equal to 427 BOPD times the number of 160-acre tracts contacted by the wellbore as determined from directional surveys.

(16) 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.

(17) 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.

(18) 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.

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 the N/2 of Section 23, Township 26 North, Range 3 West, NMPM, Rio Arriba County, New Mexico, by drilling its Jicarilla "99" Well No. 17 from an unorthodox surface location 150 feet from the North line and 670 feet from the West line (Unit D) of Section 23 in the following unconventional manner:

Drill vertically to a depth of approximately 6,704 feet, kick off from the vertical at this depth and drill in a southeasterly 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 7,085 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 7,325 feet.

PROVIDED HOWEVER THAT, no portion of the horizontal portion of the wellbore shall be located closer than 330 feet from the north and south nor closer than 790 feet from the east and west boundaries of the project area.

(2) The N/2 of Section 23 shall be dedicated to the above-described well forming a non-standard 320-acre oil spacing and proration unit, also hereby approved.

(3) The subject well shall be assigned an oil allowable equal to 427 BOPD times the number of standard 160-acre tracts contacted by the wellbore as determined from directional surveys.

(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) 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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