

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. 11053  
ORDER NO. R-10173*

**APPLICATION OF AMOCO PRODUCTION COMPANY FOR A HIGH  
ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT AND  
SPECIAL OPERATING RULES THEREFOR, SAN JUAN COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 4, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 25<sup>th</sup> day of August, 1994 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) At the time of the hearing Division Case Nos. 11051, 11052, 11053, 11054, 11055, and 11056 were consolidated for purposes of testimony.
- (3) The applicant in this matter, Amoco Production Company ("Amoco"), is the operator of a standard 320-acre gas spacing and proration unit in the Blanco-Mesaverde Pool comprising the E/2 of Section 29, Township 31 North, Range 8 West, NMPM, San Juan County, New Mexico, which is currently simultaneously dedicated to the applicant's Kernaghan "B" Well No. 3 (API No. 30-045-10361), located at a standard gas well location 990 feet from the North line and 1650 feet from the East line (Unit B) of said Section 29, and to its Kernaghan "B" Well No. 3A (API No. 30-045-22421), located at a standard gas well location 980 feet from the South line and 1480 feet from the East line (Unit O) of said Section 29.

(4) Said proration unit is located within the boundaries of the Blanco-Mesaverde Pool and is therefore subject to the Special Rules and Regulations for said pool and the General Rules for the Prorated Gas Pools of New Mexico, both contained within Division Order No. R-8170, as amended.

(5) At this time the applicant seeks to initiate a high angle/horizontal directional drilling pilot project within said 320-acre standard gas spacing and proration unit in the Blanco-Mesaverde Pool, by recompleting the Kernaghan "B" Well No. 3A with a medium radius horizontal bore hole.

(6) Further, the applicant seeks special rules and provisions within the project area including authorization to cross quarter-quarter section lines and the designation of a prescribed area limiting the horizontal displacement of the producing portion of the wellbore within the allowed 790 foot setback requirements from the outer boundary of the subject proration unit.

(7) The applicant proposes to plug off the existing Mesaverde perforations in the Kernaghan "B" Well No. 3A and kick-off from the vertical in a northerly direction by milling a window in the existing casing at a depth of approximately 4700 feet, drill a medium radius curve hole to approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

(8) The applicant's evidence indicates that there are some producing wells in this area that exhibit significantly greater producing rates and ultimate gas recoveries than others. Applicant contends that such difference in rates and recoveries is due primarily to some wells intersecting natural fracture systems within the Blanco-Mesaverde Pool.

(9) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore should encounter a substantially greater number of natural fractures within said pool 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 significantly greater amount of gas from the proposed project area, thereby preventing waste.

(10) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed horizontal directional drilling pilot project.

(11) The application, as proposed, exhibits sound engineering practices, promotes the conservation of gas underlying the unit, and serves to prevent waste and protect correlative rights. This application would therefore be approved provided however that:

- (a) no part of the horizontal wellbore should be located closer than 790 feet from the outer boundary of the project area;
- (b) the applicant be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order;
- (c) the applicant further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division; and,
- (d) the applicant notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

IT IS THEREFORE ORDERED THAT:

(1) The application of Amoco Production Company for a high angle/horizontal directional drilling pilot project within an existing standard 320-acre gas spacing and proration unit in the Blanco-Mesaverde Pool comprising the E/2 of Section 29, Township 31 North, Range 8 West, NMPM, San Juan County, New Mexico, is hereby approved.

(2) The applicant, after plugging off the existing Mesaverde perforations in the Kernaghan "B" Well No. 3A (API No. 30-045-22421), located at a standard gas well location 980 feet from the South line and 1480 feet from the East line (Unit O) of said Section 29, is hereby authorized to kick-off from vertical in a northerly direction by milling a window in the existing casing at a depth of approximately 4700 feet, drill a medium radius curve hole to approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

PROVIDED HOWEVER, no portion of the horizontal displacement of said well's producing interval be closer than 790 feet from the outer boundary of the subject proration unit.

(3) The E/2 of said Section 29 shall be simultaneously dedicated to the above-described well and to the existing Kernaghan "B" Well No. 3 (API No. 30-045-10361), located at a standard gas well location 990 feet from the North line and 1650 feet from the East line (Unit B) of said Section 29.

(4) The applicant shall conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order.

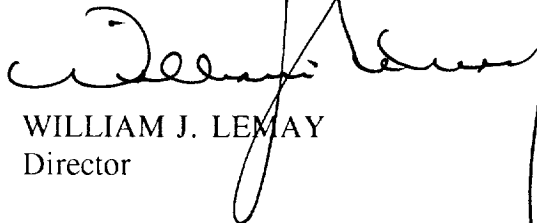
(5) The applicant shall submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(6) The applicant shall notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

(7) 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

  
WILLIAM J. LEMAY  
Director

S E A L