

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. 10339*  
*ORDER NO. R-9562*

APPLICATION OF CONOCO, INC. FOR A HIGH ANGLE/  
HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT  
AND AN UNORTHODOX OIL WELL LOCATION, EDDY COUNTY,  
NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 27, 1991, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 9th day of August, 1991 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, Conoco, Inc., seeks authority to initiate a high angle/horizontal directional drilling pilot project in an existing 160-acre oil spacing and proration unit in the North Dagger Draw-Upper Pennsylvanian Pool comprising the NW/4 of Section 17, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico. The applicant proposes to drill its Barbara Federal Well No. 13 from an unorthodox surface oil well location 760 feet from the North line and 2630 feet from the West line (Unit C) of said Section 17 in the following unconventional manner:

Drill vertically to a depth of approximately 7100 feet, kick-off to the west, building angle at a rate of 10 degrees per 100 feet until a slant of 85 to 88 degrees off of vertical is

achieved, set 9 5/8-inch intermediate casing at the top of the Cisco "C" horizon and continue to drill horizontally for approximately 1320 feet.

(3) It is Conoco's intention to keep the horizontal displacement of said well's producing interval within an area which extends no closer than 660 feet to the northwest quarter section lines in said Section 17.

(4) The proposed horizontal well and project area are located within the boundaries of the North Dagger Draw-Upper Pennsylvanian Pool, and as such, are subject to the Special Rules and Regulations for said pool, as promulgated by Division Order No. R-4691, as amended, which require 160-acre spacing and proration units with designated well locations to be no closer than 660 feet to the outer boundary of the proration unit nor closer than 330 feet to any quarter-quarter section line or subdivision inner boundary, and which further established an oil allowable of 700 barrels of oil per day for each proration unit.

(5) The proposed project area encompasses an existing standard 160-acre oil spacing and proration unit which is currently dedicated to Conoco's Jenny Com Well No. 1 located at a standard oil well location 1750 feet from the North line and 660 feet from the West line (Unit E) of said Section 17.

(6) The zone of interest for this project can be generally characterized as a vugular dolomite encased in an impermeable limestone matrix.

(7) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore, which is experimental in nature, should encounter a substantially greater number of "vug systems" within the Cisco "C" formation than would a conventional wellbore, which may ultimately result in the recovery of a greater amount of oil from the proposed project area, thereby preventing waste.

(8) Yates Petroleum Corporation, the only off-set operator other than Conoco to the proposed project, entered an appearance at the hearing but did not object to the application. No other interested party in this matter entered an appearance at the hearing or objected.

(9) In the interest of conservation, the prevention of waste and the protection of correlative rights, the application of Conoco, Inc. for this horizontal drainhole project should be approved.

(10) The simultaneous dedication of North Dagger Draw-Upper Pennsylvanian oil production from the existing Jenny Com Well No. 1 and the proposed Barbara Federal Well No. 13 should be authorized, provided the combined production from both wells does not exceed the assigned allowable to the subject proration unit.

(11) The applicant should be required to determine the actual location of the kick-off point prior to directional drilling operations. Also, the applicant should notify the supervisor of the Artesia District Office of the Division of the proposed direction of the deviated hole and of the date and time of the commencement of directional drilling in order that the same may be witnessed.

(12) The applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of the drilling operations on the well and submit a copy of said survey to both the Santa Fe and Artesia Offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Conoco, Inc. for a high angle/horizontal directional drilling pilot project in an existing 160-acre oil spacing and proration unit in the North Dagger Draw-Upper Pennsylvanian Pool comprising the NW/4 of Section 17, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, is hereby approved.

(2) The applicant is authorized to drill its Barbara Federal Well No. 13 from an unorthodox surface oil well location 760 feet from the North line and 2630 feet from the West line (Unit C) of said Section 17 in the following unconventional manner:

Drill vertically to a depth of approximately 7100 feet, kick-off to the west, building angle at a rate of 10 degrees per 100 feet until a slant of 85 to 88 degrees off of vertical is achieved, set 9 5/8-inch intermediate casing at the top of the Cisco "C" horizon and continue to drill horizontally for approximately 1320 feet.

PROVIDED HOWEVER THAT, the horizontal portion of the subject well shall be located no closer than 660 feet from the outer boundary of the project area.

(3) Conoco, Inc. is also authorized to simultaneously dedicate North Dagger Draw-Upper Pennsylvanian Pool production from the existing Jenny Com Well No. 1 with production from the proposed Barbara Federal Well No. 13; said operator shall be permitted to produce the allowable assigned the subject 160-acre oil proration unit from both wells in any proportion.

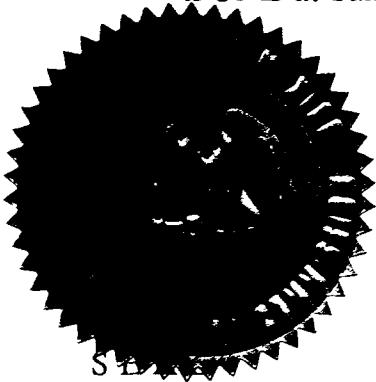
(4) The geographic location of the kick-off point for the proposed horizontal well shall be determined prior to directional drilling. Also, the operator shall notify the supervisor of the Artesia District Office of the Division of the proposed direction of the deviated hole and of the date and time of the directional drilling in order that the same may be witnessed.

(5) The applicant shall conduct a directional drilling survey on the well during or after completion of horizontal drilling operations.

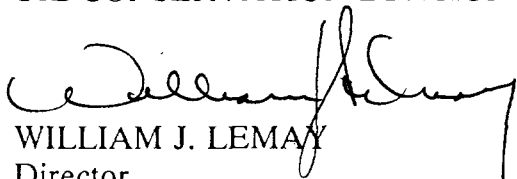
(6) Upon completion of the horizontal drilling operations on the well, the applicant shall file a copy of said directional drilling survey along with a final report specifying the depth and location of the terminus of said horizontal wellbore to both the Santa Fe and Artesia Offices of the Division.

(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