

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

November 14, 1995

OUL COM. LANS.

Amoco Production Company P. O. Box 800 Denver, Colorado 80201

Attention: J. W. Hawkins

Administrative Order DD-125(H) High Angle/Horizontal Wellbore

Dear Mr. Hawkins:

Reference is made to Amoco Production Company's application dated October 9, 1995 for authorization to utilize its Barnes "LS" Well No. 6-A (API No. 30-045-22396) to drill multiple horizontal drainholes within the vertical limits of the Blanco-Mesaverde Pool underlying the existing 320-acre standard gas spacing and proration unit ("GPU") comprising the E/2 of Section 23, Township 32 North, Range 11 West, NMPM, San Juan County, New Mexico.

The Division Director Finds That:

- The application has been duly filed under the provisions of Rule 111(D) and (E) of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- The Barnes "LS" Well No. 6-A, located at a standard gas well location 1720 feet from the South line and 850 feet from the East line (Unit I) of said Section 23, was originally drilled in 1977 to a depth of 5,952 feet and dually completed in both the Blanco-Pictured Cliffs and Blanco-Mesaverde Pools;
- This well serves as an "infill" Blanco-Mesaverde well to the original Barnes "LS" Well No. 6 (API No. 30-045-11366), drilled and completed in 1954 at a standard gas well location 990 feet from the North and East lines (Unit A) of said Section 23 in the subject 320-acre GPU;

- (4) By Order No. R-8170, as amended, the Division promulgated the "General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool", which includes provisions for 320-acre gas spacing and proration units and well location requirements whereby the initial well drilled on a GPU shall be located be no closer than 790 feet to the outer boundary of the quarter section on which the well is located and not closer than 130 feet to any quarter-quarter section line or subdivision inner boundary and the infill well drilled on an existing GPU shall be in the quarter section not containing a Mesaverde gas well and shall be located with respect to the restrictions as previously described;
- (5) The "project area" for the proposed high angle/horizontal wellbore is to correspond with the subject GPU;
- Multiple high angle/horizontal drainholes from the subject wellbore should provide Amoco a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation, which should result in a higher production rate and an increased ultimate recovery of gas from this well;
- (7) The applicant/operator proposes to kick-off from vertical at various depths by milling windows in the existing 4-1/2 inch linear, drill out with short radius curves (64 degrees per 100 feet or 90 foot radius), and continue to drill horizontally within the vertical limits of the Blanco-Mesaverde Pool a lateral distance of approximately 500 feet for each;
- (8) The applicable drilling window or "producing area" for said wellbore and drainholes should include that area within the E/2 of said Section 23 that is no closer than 790 feet to the outer boundary of the subject GPU; and,
- (9) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Amoco Production Company, is hereby authorized to utilize its Barnes "LS" Well No. 6-A (API No. 30-045-22396), located at a standard gas well location 1720 feet from the South line and 850 feet from the East line (Unit I) of Section 23, Township 32 North, Range 11 West, NMPM, San Juan County, New Mexico, to drill multiple horizontal drainholes within the vertical limits of the Blanco-Mesaverde Pool by kicking-off from vertical

at various depths by milling windows in the existing 4-1/2 inch linear, drill out with short radius curves (64 degrees per 100 feet or 90 foot radius), and continue drilling horizontally a lateral distance of approximately 500 feet for each.

<u>PROVIDED HOWEVER THAT</u> prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of each kick-off point by means of a directional survey acceptable to the Division.

<u>PROVIDED FURTHER THAT</u> during or upon completion of directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to the termination point in each drainhole in order that the subsurface bottomhole locations for each, as well as the drainhole's true depth and course, may be determined.

- (2) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys for each lateral to the Santa Fe and Aztec offices of the Division upon completion.
- (3) The "project area" for said horizontal well shall correspond with the existing 320-acre standard gas spacing and proration unit ("GPU") comprising the E/2 of said Section 23, whereby both the subject well and Amoco's Barnes "LS" Well No. 6 (API No. 30-045-11366), located at a standard gas well location 990 feet from the North and East lines (Unit A) of said Section 23, are both to be simultaneously dedicated.
- (4) The applicable drilling window or "producing area" for said wellbore and drainholes should include that area within the E/2 of said Section 23 that is no closer than 790 feet to the outer boundary of the subject GPU.
- (5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and Order No. R-8170, as amended.
- (6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depths in addition to measured depths.
- (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

SEAL

WJL/MES/kv

cc: Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

File: Case 11,274