

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. 11727
ORDER NO. R-10781*

**APPLICATION OF ARCO PERMIAN, A DIVISION OF ATLANTIC RICHFIELD
COMPANY, FOR DIRECTIONAL DRILLING AND AN UNORTHODOX
BOTTOMHOLE GAS 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 March 6, 1997, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 18th day of March, 1997 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, ARCO Permian, a Division of Atlantic Richfield Company ("ARCO"), seeks authorization to re-enter the Evelyn "35" State Com Well No. 1 (**API No. 30-015-29133**) and recomplete by side tracking off of the vertical portion of the wellbore and directionally drill to a pre-determined unorthodox bottomhole location in order to more thoroughly test and develop the South Empire-Morrow Gas Pool underlying the N/2 of Section 35, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico, being a standard 320-acre gas spacing and proration unit for said pool.
- (3) The Evelyn "35" State Com Well No. 1, located at an unorthodox gas well location (approved by Division Administrative Order NSL-3700, dated August 30, 1996) 1730 feet from the North line and 660 feet from the East line (unit H) of said Section 35, was originally drilled in late 1996 by Amoco Production Company to a total depth of 10,805 feet

in order to test the Morrow formation. At that time a string of 5-1/2 inch production casing was set to total depth and cemented with 1,330 sacks.

(4) Utilizing extensive geologic data, including 3-D seismic survey, the applicant has determined that the existing wellbore missed a very narrow channel sand deposit within the Morrow interval that trends in a north-northwesterly/south-southeasterly direction and includes the extreme northeastern corner of said Section 35. By sidetracking off of the vertical portion of the subject well and directionally drilling to an unorthodox bottomhole location within 100 feet of a point 1253 feet from the North line and 508 feet from the East line of said Section 35, ARCO expects to drill into this narrow channel feature thereby increasing the likelihood of intersecting a commercial grade gas bearing zone within the Morrow formation.

(5) Should the Morrow interval at this new bottomhole location be found commercially productive, ARCO proposes to recompleate said well by abandoning the original hole by placing a cast iron bridge plug topped off with 35 sacks of cement at a depth of 10,520 feet, mill a window in the 5-1/2 inch casing at a depth of 9,756 feet in order to kick-off from vertical, drill in a north-northeasterly direction, build to an approximate angle of 36 degrees and continue to drill directionally to an estimated true vertical depth of 10,800 feet within the South Empire-Morrow Gas Pool inside the target area as described above.

(6) At the time of the hearing ARCO requested an exception to Division General Rule 107.J in order to recompleate the subject well with 2-7/8 inch tubing to be cemented in place within the sidetracked hole from total depth back into the 5-1/2 inch casing string at a depth to be determined by the Supervisor of the Artesia District Office of the Division.

(7) Doyle Hartman, Oil Operator, an offset operator of a producing South Empire-Morrow Gas Well in the S/2 of Section 25, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico appeared at the hearing through legal counsel but offered no opposing testimony.

(8) Approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of Morrow gas underlying the N/2 of said Section 35, will prevent the economic loss caused by the drilling of unnecessary wells, exhibits sound engineering practices by utilizing an existing wellbore, is in the best interest of conservation and will otherwise prevent waste and protect correlative rights.

(9) The applicant should be required to determine the subsurface location of the kick-off point of the Evelyn "35" State Com Well No. 1 prior to directional drilling and should subsequently be required to conduct an accurate wellbore survey during or upon completion of drilling operations from the kick-off point to total depth to determine its true

depth and course.

(10) The applicant should be required to notify the supervisor of the Artesia District Office of the Division of the date and time said directional surveys are to be conducted so that they may be witnessed. The applicant should further be required to provide a copy of said directional surveys to the Santa Fe and Artesia District Offices of the Division upon completion.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, ARCO Permian, a Division of Atlantic Richfield Company ("ARCO"), is hereby authorized to recomplete the existing Evelyn "35" State Com Well No. 1 (API No. 30-015-29133), located at an unorthodox gas well location (approved by Division Administrative Order NSL-3700, dated August 30, 1996) 1730 feet from the North line and 660 feet from the East line (Unit H) of Section 35, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico, by abandoning the original hole by placing a cast iron bridge plug topped off with 35 sacks of cement at a depth of 10,520 feet, mill a window in the 5-1/2 inch casing at a depth of 9,756 feet in order to kick-off from vertical, drill in a north-northeasterly direction, build to an approximate angle of 36 degrees and continue to drill directionally to an estimated true vertical depth of 10,800 feet within the South Empire-Morrow Gas Pool to an unorthodox bottomhole location within 100 feet of a point 1253 feet from the North line and 508 feet from the East line of said Section 35.

(2) Further, said well shall be recompleted utilizing 2-7/8 inch tubing to be cemented in place within the sidetracked hole from total depth back into the 5-1/2 inch casing string at a depth to be determined by the Supervisor of the Artesia District Office of the Division.

(3) The 320 acres comprising the N/2 of said Section 35 are to be dedicated to said well.

(4) Prior to commencing directional drilling operations however, the operator shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED HOWEVER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(5) The applicant shall notify the supervisor of the Artesia district office of the

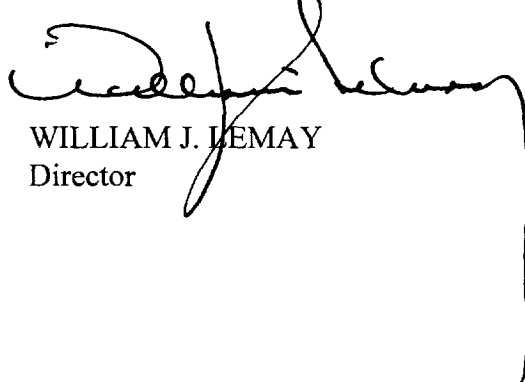
Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Artesia offices of the Division upon completion.

(6) Form C-105 shall be filed in accordance with Division Rule No. 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths for the new sidetracked hole within the Evelyn "35" State Com Well No. 1.

(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

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