

**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. 10789  
Order No. R-9951**

**APPLICATION OF BRIGHT & COMPANY FOR  
APPROVAL OF A SECOND WELL IN A HIGH  
ANGLE/HORIZONTAL DIRECTIONAL DRILLING  
PILOT PROJECT, AN UNORTHODOX SURFACE  
OIL WELL LOCATION, AND SPECIAL OPERATING  
RULES THEREFOR, SANDOVAL COUNTY, NEW  
MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on August 12, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 30<sup>th</sup> day of August, 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) By Order No. R-9676, the Division authorized Bright & Company to initiate a high angle/horizontal directional drilling pilot project in the Rio Puerco-Mancos Oil Pool by horizontally drilling its Cuba Mesa Unit Well No. 1 at a standard surface oil well location 730 feet from the South line and 1000 feet from the West line (Unit M) of Section 35, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico. The W/2 of Section 35 is currently designated as the pilot project area for this well.

(3) The Cuba Mesa Unit Well No. 1 was spudded on June 13, 1992, and was completed in the Rio Puerco-Mancos Oil Pool during July, 1992 at an initial producing rate of approximately 210 barrels of oil per day.

(4) The applicant, Bright & Company, seeks authority to drill a second high angle/horizontal wellbore in the Rio Puerco-Mancos Oil Pool within the W/2 of Section 35, by commencing its Cuba Mesa Unit "35" Well No. 2 at an unorthodox surface location 1010 feet from the South line and 820 feet from the West line (Unit M) of Section 35 and drilling in the following unconventional manner:

Drill vertically to a depth of approximately 3,539 feet and kick off from the vertical at this depth drilling a medium radius curve in a north-northwesterly direction building angle to approximately 87.25 degrees. Drill horizontally a distance of approximately 3,200 feet bottoming said wellbore at a location approximately 660 feet from the North and West lines (Unit D) of Section 35.

(5) The applicant further seeks a special drilling/testing oil allowable of 19,200 barrels of oil for a 60-day period commencing the day the well is spudded. In addition, the applicant seeks a permanent special project oil allowable of 640 barrels of oil per day.

(6) The proposed well and project area are located within the Rio Puerco-Mancos Oil Pool, and as such, are subject to the Special Rules and Regulations for said pool as promulgated by Division Order No. R-7471, as amended, which require 320-acre spacing and proration units with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any governmental quarter-quarter section line nor closer than 1800 feet to any well completed in or drilling to the Mancos formation, and which further prohibit the drilling of more than one well on a standard proration unit, and which further establish an oil allowable of 320 barrels of oil per day per standard proration unit and a limiting gas-oil ratio of 500 cubic feet of gas per barrel of oil.

(7) The Cuba Mesa Unit Well No. 1 was initially proposed to have been drilled a lateral distance of approximately 3,000 feet; however, due to mechanical difficulties and oil flows encountered, the subject well was drilled only a lateral distance of approximately 875 feet.

(8) In addition, the Cuba Mesa Unit Well No. 1 was initially proposed to have been completed in the "B1" pay interval of the Mancos formation; however, due to mechanical difficulties, the subject well was completed in the deeper "B2" pay interval.

(9) The applicant seeks authority to drill a second horizontal well within the W/2 of Section 35 for the following reasons:

- a) due to the present mechanical configuration of the Cuba Mesa Unit Well No. 1, the applicant is unable to re-drill or complete said well in the "B1" pay interval;
- b) the Cuba Mesa Unit Well No. 1 was not drilled a sufficient lateral distance to encounter the area of maximum flexure point (maximum fracture development) within the reservoir underlying the W/2 of Section 35.

(10) According to applicant's evidence and testimony, the proposed Cuba Mesa Unit "35" Well No. 2 will be drilled to and completed in the "B1" pay interval within the Mancos formation, and will be drilled a sufficient lateral distance to encounter the area of maximum flexure point within the reservoir.

(11) The evidence presented by the applicant indicates that the W/2 of Section 35 cannot be fully developed in the Rio Puerco-Mancos Oil Pool solely by the Cuba Mesa Unit Well No. 1.

(12) The proposed well is located within the applicant's Cuba Mesa Federal Unit comprising Sections 25, 26, 35 and 36, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico.

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

(14) Approval of the subject application will allow the applicant the opportunity to fully develop the W/2 of Section 35 in the Rio Puerco-Mancos Oil Pool, thereby recovering oil reserves which may not otherwise be recovered, thereby preventing waste, and will not violate correlative rights.

(15) No part of the horizontal wellbore should be located closer than 660 feet from the outer boundary of the project area.

(16) The applicant's request for a drilling/testing oil allowable has previously been granted in this area for similar wells within the San Isidro Shallow Unit. This request is reasonable and should be granted.

(17) According to applicant's evidence and testimony, the Cuba Mesa Unit Well No. 1 is currently producing at a rate of approximately 50 barrels of oil per day. At such a rate, the proposed Cuba Mesa Unit "35" Well No. 2 will be allowed to produce, under the current allowable, 270 barrels of oil per day.

(18) The applicant did not present sufficient evidence to justify a special oil allowable of 640 barrels of oil per day for the project area, and therefore this request should be denied.

(19) The applicant should 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.

(20) The applicant should further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(21) The applicant should 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 applicant, Bright & Company, is hereby authorized to drill a second high angle/horizontal wellbore within a previously established high angle/horizontal directional drilling pilot project area comprising the W/2 of Section 35, Township 21 North, Range 2 West, NMPM, Rio Puerco-Mancos Oil Pool, Sandoval County, New Mexico, by commencing its Cuba Mesa Unit "35" Well No. 2 at an unorthodox surface location 1010 feet from the South line and 820 feet from the West line (Unit M) of Section 35 and drilling in the following unconventional manner:

Drill vertically to a depth of approximately 3,539 feet and kick off from the vertical at this depth drilling a medium radius curve in a north-northwesterly direction building angle to approximately 87.25 degrees. Drill horizontally a distance of approximately 3,200 feet bottoming said wellbore at a location approximately 660 feet from the North and West lines (Unit D) of Section 35.

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

(2) The W/2 of said Section 35 shall be simultaneously dedicated to the above-described well and to the existing Cuba Mesa Unit Well No. 1 forming a standard 320-acre oil spacing and proration unit for said pool.

(3) 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.

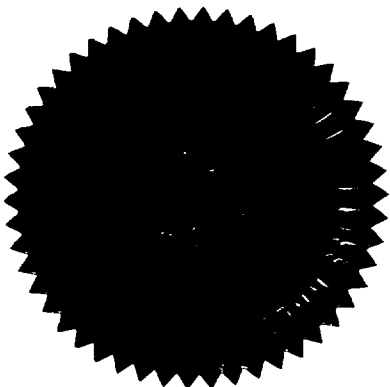
(4) The applicant shall submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(5) 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.

(6) The Cuba Mesa Unit "35" Well No. 2 is hereby assigned a drilling/testing allowable of 19,200 barrels of oil for a 60-day period commencing the day the well is spudded.

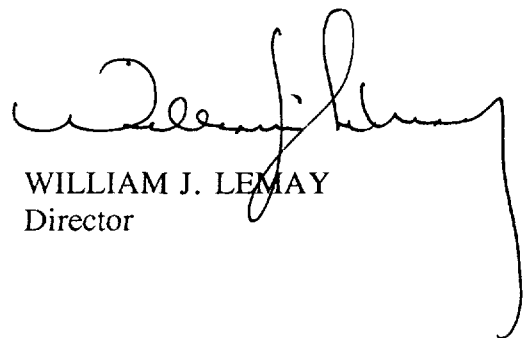
(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



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STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director