

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. 11141
Order No. R-10082-A

APPLICATION OF MARATHON OIL COMPANY
FOR TWO ADDITIONAL HIGH ANGLE/HORIZONTAL
WELLS AND TO AMEND DIVISION ORDER NO.
R-10082, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 10, 1994, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 28th day of November, 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) By Order No. R-10082 issued in Case No. 10922 on March 15, 1994, the Division, upon application of Marathon Oil Company, approved a high angle/horizontal directional drilling pilot project in the Denton-Devonian Pool underlying the SW/4, N/2 SE/4 and SE/4 SE/4 of Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico. This order further authorized the applicant to utilize its existing J. M. Denton Well No. 5, located at a standard surface location 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 11. to horizontally drill to an unorthodox bottomhole location 1154 feet from the South line and 2305 feet from the West line (Unit N) of Section 11.

(3) The applicant, Marathon Oil Company, seeks to amend Division Order No. R-10082 by horizontally drilling its existing J. M. Denton Well Nos. 4 and 6 located, respectively, 1980 feet from the South line and 2080 feet from the West line (Unit K), and 660 feet from the South line and 990 feet from the East line (Unit P), both in Section 11, within the project area in lieu of horizontally drilling the aforesaid J. M. Denton Well No. 5.

(4) The applicant proposes to horizontally drill the J. M. Denton Well No. 4 in the following unconventional manner:

Squeeze perforations from approximately 11,226 feet to 11,600 feet. Mill casing from a depth of 11,210 feet to 11,250 feet. Set cement plug and kick off from the vertical at a depth of approximately 11,240 feet and drill in a southeast direction building angle to approximately 90 degrees so as to penetrate the upper portion of the Devonian formation at a depth of 11,285 feet. Continue drilling horizontally a distance of approximately 900 feet so as to bottom said wellbore within the NW/4 SE/4 of Section 11.

(5) The applicant proposes to horizontally drill the J. M. Denton Well No. 6 in the following unconventional manner:

Squeeze perforations from approximately 11,826 feet to 11,958 feet. Mill casing from a depth of 11,810 feet to 11,860 feet. Set cement plug and kick off from the vertical at a depth of approximately 11,840 feet and drill in a northeast direction building angle to approximately 90 degrees so as to penetrate the upper portion of the Devonian formation at a depth of 11,885 feet. Continue drilling horizontally a distance of approximately 1000 feet so as to bottom said wellbore within the NE/4 SE/4 of Section 11.

(6) According to applicant's evidence and testimony, at the time the original application was filed to horizontally drill the J. M. Denton Well No. 5, the J. M. Denton Well No. 4 was not a candidate for horizontal drilling due to its good producing rate.

(7) Subsequent to that time, the production from the J. M. Denton Well No. 4 has declined to approximately 8 barrels of oil per day.

(8) The applicant seeks to horizontally drill the J. M. Denton Well No. 4 in lieu of the J. M. Denton Well No. 5 inasmuch as Well No. 4 is located at a much better structural position within the Denton-Devonian Pool than Well No. 5.

(9) The structural advantage gained by horizontally drilling the J. M. Denton Well No. 4 should result in the recovery of oil and gas which would not otherwise be recovered by horizontally drilling the J. M. Denton Well No. 5, thereby preventing waste.

(10) The applicant seeks to additionally horizontally drill the J. M. Denton Well No. 6 inasmuch as the geologic data indicates that the E/2 SE/4 of Section 11 is isolated from the remaining project area by a north-south trending fault.

(11) Horizontally drilling the J. M. Denton Well No. 6 should result in the recovery of oil and gas from the project area which would otherwise not be recovered by the J. M. Denton Well No. 4.

(12) The evidence indicates that no portion of either horizontal wellbore will be located closer than 330 feet from the outer boundary of the project area.

(13) Further evidence presented indicates that the J. M. Denton Well No. 4, located in the NE/4 SW/4, will traverse a portion of the NW/4 SE/4, which unit is currently dedicated to the J. M. Denton Well No. 3. In addition, the J. M. Denton Well No. 6, located in the SE/4 SE/4, will traverse a portion of the NE/4 SE/4, which unit is currently dedicated to the J. M. Denton Well No. 7.

(14) With respect to allowables within the project area, the applicant requested assignment of allowables as follows:

- a) the J. M. Denton Well Nos. 5, 9 and 13, located, respectively, in the SE/4 SW/4, NW/4 SW/4 and the SW/4 SW/4, should be assigned their normal allowable of 365 barrels of oil per day;
- b) the J. M. Denton Well Nos. 4 and 3 (NE/4 SW/4 and NW/4 SE/4) and the J. M. Denton Well Nos. 6 and 7 (SE/4 SE/4 and NE/4 SE/4) should each be assigned a special combined allowable of 730 barrels of oil per day (365 BOPD X 2).

(15) The applicant further requested that it be allowed to produce the 730 BOPD allowable from any well within these 80-acre units in any proportion.

(16) The applicant's allowable request is reasonable and should be granted.

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

(18) In the interest of conservation and prevention of waste, the application of Marathon Oil Company to amend Division Order No. R-10082 by drilling two horizontal wellbores within the subject project area should be approved.

(19) The applicant should be required to determine the actual location of the kick-off point in each well prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of each wellbore during or after completion of drilling operations.

(20) The applicant should notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(21) The applicant should be required to submit copies of all directional surveys conducted on the subject wells to both the Santa Fe and Hobbs offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Marathon Oil Company to amend Division Order No. R-10082 is hereby approved.

(2) In lieu of horizontally drilling the J. M. Denton Well No. 5 within the project area (SW/4, N/2 SE/4, and SE/4 SE/4 of Section 11), the applicant is hereby authorized to horizontally drill its J. M. Denton Well Nos. 4 and 6, located, respectively, in the NE/4 SW/4 and SE/4 SE/4 of Section 11 in the following unconventional manner:

J. M. DENTON WELL NO. 4

Squeeze perforations from approximately 11,226 feet to 11,600 feet. Mill casing from a depth of 11,210 feet to 11,250 feet. Set cement plug and kick off from the vertical at a depth of approximately 11,240 feet and drill in a southeast direction building angle to approximately 90 degrees so as to penetrate the upper portion of the Devonian formation at a depth of 11,285 feet. Continue drilling horizontally a distance of approximately 900 feet so as to bottom said wellbore within the NW/4 SE/4 of Section 11.

J. M. DENTON WELL NO. 6

Squeeze perforations from approximately 11,826 feet to 11,958 feet. Mill casing from a depth of 11,810 feet to 11,860 feet. Set cement plug and kick off from the vertical at a depth of approximately 11,840 feet and drill in a northeast direction building angle to approximately 90 degrees so as to penetrate the upper portion of the Devonian formation at a depth of 11,885 feet. Continue drilling horizontally a distance of approximately 1000 feet so as to bottom said wellbore within the NE/4 SE/4 of Section 11.

(3) The horizontal or producing portion of the J. M. Denton Well Nos. 4 and 6 shall be located no closer than 330 feet from the outer boundary of the project area.

(4) The applicant shall determine the actual location of the kick-off point in each well prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of each wellbore during or after completion of drilling operations.

(5) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(6) The applicant shall submit copies of all directional surveys conducted on the subject wells to both the Santa Fe and Hobbs offices of the Division.

(7) The allowables within the project area shall be assigned as follows:

- a) the J. M. Denton Well Nos. 5, 9 and 13, located, respectively, in the SE/4 SW/4, NW/4 SW/4 and the SW/4 SW/4, shall be assigned their normal allowable of 365 barrels of oil per day;
- b) the J. M. Denton Well Nos. 4 and 3 located, respectively, in the NE/4 SW/4 and NW/4 SE/4 of Section 11 shall be assigned a special combined allowable of 730 barrels of oil per day. The allowable assigned to this unit may be produced from either the J. M. Denton Well Nos. 4 and 3 in any proportion. and;

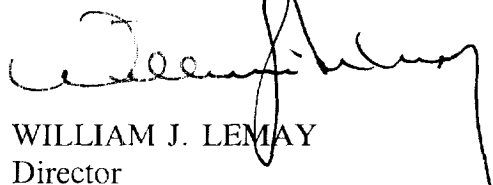
- c) the J. M. Denton Well Nos. 6 and 7 located, respectively, in the SE/4 SE/4 and NE/4 SE/4 of Section 11 shall each be assigned a special combined allowable of 730 barrels of oil per day. The allowable assigned to this unit may be produced from either the J. M. Denton Well Nos. 6 and 7 in any proportion.

(8) Ordering Paragraph Nos. 2, 3, 4, 5 and 6 of Division Order No. R-10082 are hereby superseded by this order. All other provisions contained within Order No. R-10082 shall remain in full force and effect.

(9) Jurisdiction is hereby 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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