

**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. 10570
Order No. R-9789**

**APPLICATION OF MARATHON OIL COMPANY
TO QUALIFY A PORTION OF THE SOUTH
EUNICE SEVEN RIVERS QUEEN UNIT
WATERFLOOD PROJECT FOR THE RECOVERED
OIL TAX RATE PURSUANT TO THE "NEW
MEXICO ENHANCED OIL RECOVERY ACT",
LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 15, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 23rd day of November, 1992, 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-4217 issued in Case No. 4616 on November 4, 1971, the Division authorized Marathon Oil Company to institute a waterflood project in its South Eunice Seven Rivers Queen Unit Area located in all or portions of Sections 23 through 26 and Sections 35 and 36, all in Township 22 South, Range 36 East, NMPM, South Eunice-Seven Rivers Queen Pool, Lea County, New Mexico, by the injection of water into the Seven Rivers and Queen formations.

(3) The applicant, Marathon Oil Company, seeks an order pursuant to the Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate, as promulgated by Division Order No. R-9708, qualifying a portion of its South Eunice Seven Rivers Queen Unit Waterflood Project in portions of Sections 35 and 36, Township 22 South, Range 36 East, NMPM, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(4) The proposed "expanded use area" specifically comprises the following described lands:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM

Section 35: S/2 NE/4, N/2 SE/4

Section 36: SW/4, S/2 NW/4, W/2 SE/4

(5) The subject waterflood project was initially drilled and developed utilizing an 80-acre five spot injection pattern.

(6) In 1984, the applicant infill drilled six producing wells within the "expanded use area".

(7) By Division Order No. WFX-629 dated April 9, 1992, the Division authorized Marathon to convert five producing wells to injection within the "expanded use area", these being the South Eunice Seven Rivers Queen Unit (SESRQ) Well Nos. 406, 407, 409, 412 and 415.

(8) In addition, the applicant is in the process of obtaining administrative approval to convert its SESRQ Unit Well No. 416 from a producing well to an injection well.

(9) As of the date of the hearing, the applicant has not commenced injection into the wells described in Finding Nos. (7) and (8) above.

(10) The "expanded use area", as proposed by the applicant, presently or will include twelve injection wells, these being the SESRQ Unit Well Nos. 404, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415 and 416 and six producing wells, these being the SESRQ Unit Well Nos. 435, 436, 437, 438, 439 and 440.

(11) Marathon requests certification of the "expanded use area" on the contention that it has or will expand the use of enhanced oil recovery technology by reducing the waterflood pattern from 80 acres to 40 acres.

(12) The geologic evidence presented by the applicant indicates that the Queen reservoir in the "expanded use area" contains five distinct producing stringers each vertically isolated from the others.

(13) The applicant contends that the producing stringers within the Queen reservoir are non-continuous over the entire southern portion of the unit. The result is that the existing 80-acre waterflood pattern is too large to overcome the areal discontinuities found in the Queen sand.

(14) Although the applicant contends that the stringers within the Queen reservoir are non-continuous over the southern portion of the unit, the applicant's geologic evidence generally indicates that while the sands vary in thickness, they are generally present and continuous within the "expanded use area".

(15) The engineering evidence indicates that the reduction in the waterflood pattern from 80 acres to 40 acres should improve the sweep efficiency and should increase the ultimate oil recovery from the proposed "expanded use area".

(16) Applicant's engineering evidence indicates that the reduction in waterflood pattern within the "expanded use area" may increase ultimate recovery by an average of approximately 8.7 percent of the original oil in place, or a total of 366,280 barrels of oil.

(17) "Expansion or Expanded Use" as contained within Division Order No. R-9708 is defined as follows:

"a significant change or modification as determined by the Oil Conservation Division in (a) the technology or process used for the displacement of crude oil from an oil well or pool classified by the Division; or (b) the expansion, extension, or increase in size of the geologic area or adjacent geologic area that could reasonably be determined to represent a new or unique area of activity".

(18) The initial or preliminary action to reduce the spacing and waterflood injection pattern within the "expanded use area" was undertaken by the applicant in 1984.

(19) The action currently proposed by the applicant to convert certain producing wells to injection within the "expanded use area" represents a logical continuation of the process initiated in 1984.

(20) Although the definition of "Expansion or Expanded Use" as contained within Division Order No. R-9708 is somewhat subject to interpretation, it is the opinion of the Division at the current time that the proposed action by the applicant does not represent a significant change or modification in the technology or process used for the displacement of crude oil.

(21) The application of Marathon Oil Company to qualify a portion of the South Eunice Seven Rivers Queen Unit Waterflood Project for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5) should be denied.

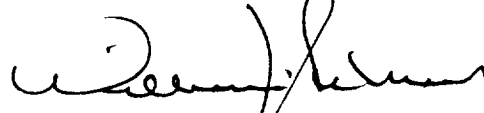
IT IS THEREFORE ORDERED THAT:

(1) The application of Marathon Oil Company to qualify a portion of its South Eunice Seven Rivers Queen Unit Waterflood Project in portions of Sections 35 and 36, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5), is hereby denied.

(2) 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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