

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. 11316  
ORDER NO. R-10471*

**APPLICATION OF MARATHON OIL COMPANY FOR DIRECTIONAL  
DRILLING AND AN UNORTHODOX BOTTOMHOLE OIL WELL LOCATION,  
LEA COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 13 and September 7, 1995, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 27<sup>th</sup> day of September, 1995 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, Marathon Oil Company ("Marathon"), seeks approval to directionally drill its Royal Well No. 1 from an unorthodox surface oil well location 2210 feet from the South line and 1310 feet from the East line (Unit I) of Section 33, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, to a bottomhole location that is within a 50-foot radius of a point that is also considered to be unorthodox 2310 feet from the South line and 1310 feet from the East line of said Section 33.

(3) The NE/4 SE/4 of said Section 33 is to be dedicated to said well to form a standard 40-acre oil spacing and proration unit for both the Blinbry formation and Undesignated East Vacuum-Drinkard Pool.

(4) The proposed well is located within the governing limits of the East Vacuum-Drinkard Pool; however, no pool is designated for Blinebry production in this general area to date, therefore the Blinebry interval can properly be classified as "wildcat". Both zones are therefore subject to the Division's Statewide Rules and Regulations which require standard 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit.

(5) The primary zone of interest for this well is the shallower Blinebry interval, which most of the geological testimony covered. The secondary objective, being approximately 800 feet deeper, is the Drinkard formation which will also be tested.

(6) The geologic evidence presented at the hearing included three dimensional seismic data and shows a thickening of the carbonate unit within the Blinebry formation, which would indicate the presence of a "reef buildup". A well at the proposed unorthodox subsurface location would serve to penetrate the top of this small structure at its highest point.

(7) A penetration of the Blinebry formation at the proposed unorthodox subsurface location should increase the likelihood of encountering oil production from the Blinebry formation in commercial quantity more than a well drilled at a standard location thereon.

(8) Surface constraints in the form of overhead electrical lines, high pressure gas flowlines, and injection lines further complicate matters and make it necessary for Marathon to locate this well on the surface 2210 feet from the South line and 1310 feet from the East line (Unit I) of said Section 33.

(9) The subject 40-acre unit and the offsetting 40-acre tract to the west being the NW/4 SE/4 (Unit J) of said Section 33 were obtained by Marathon from a farmout agreement from Shell Oil Company and comprise a single lease with common ownership; therefore, the correlative rights of the immediate offsetting and the affected tract should be further protected.

(10) By directionally drilling its Royal Well No. 1 from the proposed surface location to its intended bottomhole location, a lateral distance of only 100 feet, Marathon will be able to:

- (a) minimize disturbance and avoid existing oil and gas producing operations currently on the surface;

(b) minimize directional drilling costs by keeping the lateral distance from the surface location to the bottomhole location as short as possible;

(c) penetrate the Blinebry formation at the most optimal location possible; and,

(d) test the Drinkard formation with the same wellbore.

(11) Approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil underlying its lease, will prevent the economic loss caused by the drilling of unnecessary wells, is in the best interest of conservation and will otherwise prevent waste and protect correlative rights.

(12) The applicant should be required to determine the subsurface location of the kick-off point of the Royal 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.

(13) No interested party objected to the subject application.

(14) The applicant should be required to notify the supervisor of the Hobbs 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 Hobbs District Offices of the Division upon completion.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Marathon Oil Company ("Marathon") is hereby approved to directionally drill its Royal Well No. 1 from an unorthodox surface oil well location 2210 feet from the South line and 1310 feet from the East line (Unit I) of Section 33, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, to a bottomhole location that is within a 50-foot radius of a point that is also considered to be unorthodox 2310 feet from the South line and 1310 feet from the East line of said Section 33.

(2) The NE/4 SE/4 of said Section 33 is to be dedicated to said well to form a standard 40-acre oil spacing and proration unit for both the Blinebry formation and Undesignated East Vacuum-Drinkard Pool.

(3) 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.

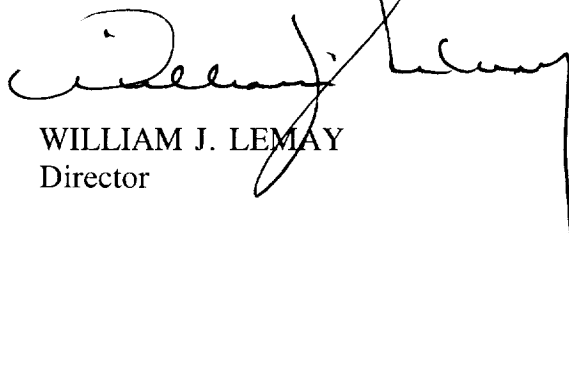
(4) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(5) 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 Royal Well No. 1.

(6) 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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