Entered February 14, 1983

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 7784 Order No. R-7204

APPLICATION OF JAKE L. HAMON FOR DESIGNATION OF A TIGHT FORMATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 19, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this <u>14th</u> day of February, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Jake L. Hamon, requests that the Division in accordance with Section 107 of the Natural Gas Policy Act, and 18 C.F.R. §271.703, recommend to the Federal Energy Regulatory Commission that the Morrow formation underlying the following lands situated in Eddy County, New Mexico, hereinafter referred to as the Morrow formation, be designated as a tight formation in said Federal Energy Regulatory Commission's regulations:

> TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM Section 25: All Section 36: All

Containing a total of 1,280 acres, more or less.

i

.

 -2-Case No. 7784 Order No. R-7204

(3) That the Morrow formation, or any portion thereof, as described herein, is not currently being developed by infill drilling as defined in 18 C.F.R. \S 271.703(b)(6) of the regulations.

(4) That the Morrow formation underlies all of the above described lands; that the Morrow sands are primarily deltaic depositional environment with channels being the area of largest sand accumulations. Trapping of reservoir fluids appears to be both structurally and stratigraphically controlled. The sands are coarse, angular to subangular, unconsolidated, clear, quartz sands with secondary quartz overgrowths.

(5) That the top of the Morrow formation is found at an average depth of 11,553 feet below the surface of the area set out in Finding No. (2) above and has approximately 190 feet of gross thickness.

(6) That the type section for the Morrow formation for the proposed tight formation designation is found at a depth of from approximately 11,458 feet to 11,648 feet on the log from the Jake L. Hamon State V-249 Well No. 1, Unit M of Section 36, Township 23 South, Range 26 East, Eddy County, New Mexico.

(7) That the evidence presented in this case demonstrated that no well formerly or currently completed in the Morrow formation within the proposed area may reasonably be presumed to have exhibited permeability, gas productivity, or crude oil productivity in excess of the following parameters:

- (a) average in situ gas permeability throughout the pay section of 0.1 millidarcy; and
- (b) stabilized production rates, without stimulation, against atmospheric pressure, as found in the table set out in 18 C.F.R.
 §271.703(c)(2)(B) of the regulations; and
- (c) production of more than five barrels of crude oil per day.

(8) That while the Morrow formation is acknowledged to exhibit wide variations in permeability, porosity, productivity, and other characteristics over very short distances, it must be concluded that based on analysis of available data from this very limited area and existing wells therein and

1.1

-3-Case No. 7784 Order No. R-7204

utilizing generally and customarily accepted petroleum engineering techniques and measurements:

- (a) the estimated average in situ gas permeability throughout the pay section of the Morrow formation is expected to be 0.1 millidarcy or less; and
- (b) the stabilized production rate, against atmospheric pressure, of wells completed for production in the Morrow formation, without stimulation, is not expected to exceed production levels determined by reference to well depth, as found in the table set out in 18 C.F.R. §271.703(c)(2)(B) of the regulations; and
- (c) no well drilled into the formation is expected to produce, without stimulation, more than five barrels of crude oil per day.

(9) That within the proposed area there is an aquifer being the Salado and Castile intervals, found at an average depth of 470-500 feet.

(10) That existing State of New Mexico and Federal Regulations relating to casing and cementing of wells will assure that development of the Morrow formation will not adversely affect any overlying aguifers.

(11) That based on technical data alone the area described in this order should be recommended to the Federal Energy Regulatory Commission for designation as a tight formation.

IT IS THEREFORE ORDERED:

(1) That it be and hereby is recommended to the Federal Energy Regulatory Commission pursuant to Section 107 of the Natural Gas Policy Act of 1978, and 18 C.F.R. §271.703 of the regulations that the Morrow formation underlying those lands in Eddy County, New Mexico, described as all of Sections 25 and 36, Township 23 South, Range 26 East, NMPM, be designated as a tight formation.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-4-Case No. 7784 Order No. R-7204

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

STATE OF NEW MEXICO OLL CONSERVATION DIVISION 710A they C JOE D. RAMEY

SEAL

v