Entered August 30, 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. 7942 Order No. R-7344

APPLICATION OF M. J. BRANNON FOR DESIGNATION OF A TIGHT FORMATION, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 17, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this <u>30th</u> day of August, 1983, the Division Director, having considered the testimony, the record, 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, M. J. Brannon, 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 Dakota formation underlying the following lands situated in San Juan County, New Mexico, hereinafter referred to as the Dakota formation, be designated as a tight formation in said Federal Energy Regulatory Commission's regulations:

TOWNSHIP 25 NORTH, RANGE 9 WEST, NMPM Section 20: E/2 Section 21: All Section 28 through 30: All

TOWNSHIP 25 NORTH, RANGE 10 WEST, NMPM Section 25: All

containing a total of 3520 acres, more or less.

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- (3) That the area proposed for tight formation designation lies within the horizontal limits of the Dakota formation which extends across the San Juan Basin in Northwest New Mexico.
- (4) That said area is bounded on the east, south, and west sides by a 135,040-acre area previously designated as a tight formation in the Dakota formation following a recommendation therefore contained in Division Order No. R-6726 entered July 16, 1981.
- (5) That said area is a logical extension of said previously approved Dakota tight formation area.
- (6) That that portion of the Dakota formation described herein is currently authorized for development by infill drilling as defined in 18 C.F.R. §271.703(b)(6) of the regulations.
- (7) That no infill wells have been drilled in the proposed area.
- (8) That within the new proposed area, twenty two Dakota producing wells are authorized by the pool rules.
- (9) That at the time of the hearing only eight Dakota producing wells existed.
- (10) That said eight wells represent only 36 percent of the total wells which could be producing in this area.
- (11) That this degree of development is insufficient to preclude the designation of the proposed area.
- (12) That the Dakota formation underlies all of the above-described lands; that the Dakota is a sandstone formation which is late Cretaceous in age with depositions occurring under both marine and non-marine conditions. It is a basal sequence of the southwesterly transgressing Cretaceous Sea which is found at an average depth of 6400 feet below the surface of the area set forth in Finding No. (2) above.
- (13) That the type section for the Dakota formation for the proposed tight formation designation is found at a depth of approximately 6234 feet to 6599 feet on the Induction Spherically Focused Log from the M. J. Brannon Federal 28 No. 2 well located in Unit E of Section 28, Township 25 North, Range 9 West, NMPM, San Juan County, New Mexico.

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- That based on an analysis of available data from existing wells within the proposed area, and in the neighboring designated area, and utilizing generally and customarily accepted petroleum engineering techniques and measurements:
 - the estimated average $\underline{\text{in situ}}$ gas permeability throughout the pay section of the Dakota formation is expected to be 0.1 millidarcy or less; and (a)
 - the stablilized production rate, against atmospheric pressure of wells completed for production in the Dakota 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 (2)(B) of the regulations; and
 - no well drilled into the Dakota formation is expected to produce, without stimulation, more than five barrels of crude oil per day.
- (15) That within the proposed area there is a recognized aquifer being the Ojo Alamo, located approximately 5400 feet above the Dakota formation.
- (16) That existing State of New Mexico and Federal Regulations relating to casing and cementing of wells will assure that development of the Dakota formation will not adversely effect the said aquifer.
- (17) That the Dakota formation within the proposed area 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 Dakota formation underlying the following described lands in San Juan County, New Mexico, be designated as a tight formation:

TOWNSHIP 25 NORTH, RANGE 9 WEST, NMPM

Section 20: E/2

Section 21: All Section 28 through 30: All

TOWNSHIP 25 NORTH, RANGE 10 WEST, NMPM Section 25: All

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containing a total of 3,520 acres, more or less.

(2) That 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
OLL CONSERVATION DIVISION

JOE D. RAMEY,
Director

SEAL