

Entered August 3, 1982
JGR

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. 7608
Order No. R-7047

APPLICATION OF TENNECO OIL
COMPANY 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 June 9, 1982, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of August, 1982, 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, Tenneco Oil Company, requests that the Division in accordance with Section 107 of the Natural Gas Policy Act of 1978 and 18 C.F.R. §271.701-703 recommend to the Federal Energy Regulatory Commission (FERC) that the Basin-Dakota formation underlying certain lands in San Juan County, New Mexico, as described on Exhibit "A" attached to this order, hereinafter referred to as the Basin-Dakota formation, be designated as a tight formation in the Federal Energy Regulatory Commission's regulations.

(3) That the area proposed for tight formation designation lies within the horizontal limits of the Basin-Dakota Pool, which is a very large area previously defined and described by the Oil Conservation Division in San Juan County, New Mexico.

(4) That within the Basin-Dakota Pool are large areas of extensive development and large areas of very limited development.

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(5) That the Dakota formation has been approved for infill drilling which permits the subject area to be developed with one Dakota well on each quarter section or 160-acre tract.

(6) That the area for which tight formation designation is herein sought is comprised of standard sections and a large number of irregularly shaped sections.

(7) That the total potential number of wells required to fully develop said area with an original well and an infill well on each proration unit (standard or non-standard size) is approximately 952.

(8) That at the time of the hearing a total of 111 wells had been drilled in the area, 87 of which were producers or 12 percent and 9 percent, respectively, of the potential drillable wells.

(9) That no proration unit within the proposed area contains an infill well.

(10) That the area proposed for tight formation designation is a largely undeveloped area.

(11) That the application excluded from consideration three small areas or windows consisting of the following described sections:

Area No. 1

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM
Sections 3, 4, and 5: All

TOWNSHIP 31 NORTH, RANGE 8 WEST, NMPM
Section 32: All

Area No. 2

TOWNSHIP 31 NORTH, RANGE 9 WEST, NMPM
Sections 27 and 28: All

Area No. 3

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM
Section 35: All

(12) That there was no evidence available as to the in situ gas permeability or unstimulated gas well production within said areas.

(13) That these areas were excluded from consideration by the applicant solely due to anomolous production considered to be of limited extent and unexplainable by ordinary engineering and geological examination.

(14) That the Basin-Dakota formation underlies all of the lands described in Exhibit "A"; that the formation consists of transgressive sands which exhibit poor grain sorting and high silt and clay content due to the processes of the depositional environments; that the top of the formation is found at an average depth of 7575 feet below the surface; and that the gross thickness of productive sand is approximately 250-300 feet.

(15) That the type section for the Basin-Dakota formation is described as that 400 foot interval found below a depth of 7251 feet as found on the Induction-Electrical and Gamma Ray log from the El Paso Natural Gas Gartner Well No. 9 located in the NE/4 of Section 33, Township 30 North, Range 8 West, San Juan County, New Mexico.

(16) That the technical evidence presented in this case demonstrated that no well formerly or currently completed in the Basin-Dakota formation within the proposed area 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 gas production rate, without stimulation, against atmospheric pressure, of 336 MCFPD, the FERC maximum allowable gas production rate for an average formation depth of 7575 feet; and
- (c) crude oil production rate of 5 barrels per day.

(17) That the technical evidence presented in this case demonstrated that the predominant percentage of wells which may be completed in the Dakota formation within the proposed tight formation area may reasonably be presumed to exhibit permeability, gas productivity, or crude oil productivity not in excess of the above described parameters.

(18) That within the proposed area there is a recognized aquifer being the Ojo Alamo, found at depths of 5000 to 6000 feet above the Dakota formation.

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(19) 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 affect any overlying aquifers.

(20) That the area described on Exhibit "A" to 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 Dakota formation underlying those lands in San Juan County, New Mexico, described on Exhibit "A" to this order, 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.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

S E A L

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TOWNSHIP 32 NORTH, RANGE 7 WEST, NMPM

Sections 7 through 9: All
Sections 16 through 21: All
Sections 25 through 36: All

TOWNSHIP 32 NORTH, RANGE 8 WEST, NMPM

Sections 7 through 36: All

TOWNSHIP 32 NORTH, RANGE 9 WEST, NMPM

Sections 7 through 36: All

TOWNSHIP 31 NORTH, RANGE 8 WEST, NMPM

Sections 1 through 31: All
Sections 33 through 36: All

TOWNSHIP 31 NORTH, RANGE 9 WEST, NMPM

Sections 1 through 26: All
Sections 29 through 36: All

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM

Sections 1 and 2: All
Sections 6 through 34: All
Section 36: All

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM

Sections 1 through 30: All
Sections 35 and 36: All

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Sections 1 through 18: All
Section 24: All

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM

Sections 1 through 6: All

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Sections 1 and 2: All

Containing a total of 149,760 acres, more or less.

EXHIBIT "A"
Case No. 7608
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