

Entered April 9, 1982
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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. 7491
Order No. R-6537-A

APPLICATION OF HARVEY E. YATES
COMPANY FOR DESIGNATION OF A
TIGHT FORMATION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 17, 1982, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of April, 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 Division on December 17, 1980, entered its Order No. R-6537, recommending to the Federal Energy Regulatory Commission that the Atoka formation, underlying the following described lands situated in Lea County, New Mexico, be designated as a tight formation pursuant to Section 107 of the Natural Gas Policy Act of 1978 and 18 CFR, Section 271.701-705:

TOWNSHIP 12 SOUTH, RANGE 35 EAST, NMPM
Sections 33 through 36: All

TOWNSHIP 12 SOUTH, RANGE 36 EAST, NMPM
Section 31: All

TOWNSHIP 13 SOUTH, RANGE 35 EAST, NMPM
Sections 1 through 4: All
Sections 9 through 16: All
Sections 21 through 28: All
Sections 33 through 36: All

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TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM
Sections 6 and 7: All
Sections 18 through 20: All
Sections 29 through 32: All

TOWNSHIP 14 SOUTH, RANGE 35 EAST, NMPM
Sections 1 through 4: All
Sections 9 through 16: All
Sections 21 through 24: All

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM
Sections 5 through 7: All
Sections 18 and 19: All

Containing a total of 37,760 acres, more or less.

(3) That the Federal Energy Regulatory Commission by its Order No. 138, so designated the Atoka formation underlying the above described lands as a tight formation.

(4) That the applicant, Harvey E. Yates Company, requests that the Division in accordance with Section 107 of the Natural Gas Policy Act, and 18 CFR §271.701-705, recommend to the Federal Energy Regulatory Commission that the Atoka formation underlying the following lands situated in Lea County, New Mexico, which are contiguous to the previously designated lands, hereinafter referred to as the Atoka formation, be designated as a tight formation in said Federal Energy Regulatory Commission's regulations:

WESTERN CONTIGUOUS AREA

TOWNSHIP 12 SOUTH, RANGE 35 EAST, NMPM
Sections 31 and 32: All

TOWNSHIP 13 SOUTH, RANGE 35 EAST, NMPM
Sections 5 through 8: All
Sections 17 through 20: All
Sections 29 through 32: All

TOWNSHIP 14 SOUTH, RANGE 34 EAST, NMPM
Sections 5 through 8: All
Sections 17 through 20: All

EASTERN CONTIGUOUS AREA

TOWNSHIP 12 SOUTH, RANGE 36 EAST, NMPM
Sections 32 through 36: All

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TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM

Sections 1 through 5: All

Sections 8 through 17: All

Sections 21 through 28: All

Sections 33 through 36: All

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM

Sections 1 through 4: All

Sections 8 through 17: All

Sections 20 through 24: All

The entire area to be added containing a total of 46,720 acres, more or less.

(5) That the Atoka formation underlies all of the above described lands; that the formation consists of shales interspersed with thin lime and sand sections; that the top of such formation is found at an average depth of 12,200 feet below the surface of the area set out in Finding No. (4) above; and that the thickness of such formation is from 375 to 750 feet within said area.

(6) That the type section for the Atoka formation for the proposed tight formation designation is found at a depth of from approximately 12,230 feet to 12,970 feet on the Gamma Ray-Neutron log dated May 18, 1980, from the Harvey E. Yates Company Betenbough Well No. 1 located in Unit C of Section 32, Township 13 South, Range 36 East, Lea County, New Mexico.

(7) That the following wells produce or have produced natural gas from the Atoka formation within the proposed area:

Harvey E. Yates Company
Betenbough #1

660 feet from North line and
1980 feet from West line of
Section 32, Township 13 South,
Range 36 East, NMPM, Lea County,
New Mexico.

(8) That the Atoka formation underlying the above described lands has been penetrated by several other wells, none of which produced natural gas in commercial quantities from the Atoka formation.

(9) That the evidence presented in this case demonstrated that no well formerly or currently completed in the Atoka formation within the proposed area exhibited permeability, gas productivity, or crude oil productivity in excess of the

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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 CFR §271.703(c)(2)(B) of the regulations; and
- (c) production of more than five barrels of crude oil per day.

(10) That based on analysis of available data from existing wells within the proposed area and utilizing generally and customarily accepted petroleum engineering techniques and measurements:

- (a) The estimated average in situ gas permeability throughout the pay section of the Atoka 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 Atoka 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 CFR §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.

(11) That within the proposed area there are two recognized water aquifers being the Ogallala, found at depths of from 250 feet to 400 feet, and the Santa Rosa, found at depths of from 900 feet to 1200 feet.

(12) That existing State of New Mexico and Federal Regulations relating to casing and cementing of wells will assure that development of the Atoka formation will not adversely affect said water zones.

(13) That the Atoka formation, or any portion thereof, as described herein, is not currently being developed by infill drilling as defined in 18 CFR §271.703(b)(6) of the regulations.

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(14) That the Atoka formation within the proposed area, described under Finding (4) above, 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 CFR §271.701-705 of the regulations that the Atoka formation tight gas formation area recommended by Division Order No. R-6537 and approved by FERC Order No. 138 effective March 30, 1981, be extended, by designation, to include the following contiguous areas:

WESTERN CONTIGUOUS AREA

TOWNSHIP 12 SOUTH, RANGE 35 EAST, NMPM
Sections 31 and 32: All

TOWNSHIP 13 SOUTH, RANGE 35 EAST, NMPM
Sections 5 through 8: All
Sections 17 through 20: All
Sections 29 through 32: All

TOWNSHIP 14 SOUTH, RANGE 34 EAST, NMPM
Sections 5 through 8: All
Sections 17 through 20: All

EASTERN CONTIGUOUS AREA

TOWNSHIP 12 SOUTH, RANGE 36 EAST, NMPM
Sections 32 through 36: All

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM
Sections 1 through 5: All
Sections 8 through 17: All
Sections 21 through 28: All
Sections 33 through 36: All

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM
Sections 1 through 4: All
Sections 8 through 17: All
Sections 20 through 24: All

The entire area to be added containing a total of 46,720 acres, more or less.

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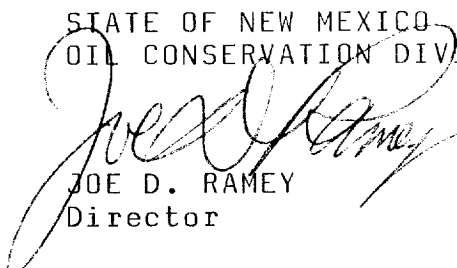
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(2) That jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

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