

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION COMMISSION
OF NEW MEXICO ON ITS OWN MOTION TO
CONSIDER REDEFINITION OF THE VERTICAL
LIMITS OF THE BLANCO-MESAVERDE POOL,
RIO ARRIBA AND SAN JUAN COUNTIES,
NEW MEXICO.

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico Case No. <u>5994</u> ORDER No. <u>6</u> by <u>Blackwood & Nichols</u> Date <u>11-10-77</u>

CASE NO. 5893
Order No. R-5459

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 23, 1977, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 14th day of June, 1977, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

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

(2) That the Blanco-Mesaverde Pool, located in Rio Arriba and San Juan Counties, New Mexico, was created by Commission Order No. 799, dated February 25, 1949.

(3) That Section (2) of said Order No. 799 defined the vertical limits of said Blanco-Mesaverde Pool as the "4200-5100 feet productive horizon where the productive sands are contained between the top of the Cliff House Sand and the base of the Point Lookout Sand of the Mesaverde."

(4) That said definition of the vertical limits of said Blanco-Mesaverde Pool has proved inadequate for the following reasons:

- A. The definition does not take into account variations in surface elevations and formation dip which can cause the "Mesaverde" productive horizon to occur above or below the 4200 feet to 5100 feet interval.
- B. The definition does not adequately take into account the transgressive, regressive, gradational nature of formations composing the "Mesaverde" productive horizon.

(5) That because of the imprecise nature of said vertical limits definition, Mesaverde productive zones above or below the 4200 foot to 5100 foot interval in any particular well might not be completed in said well.

(6) That failure to complete such zones could result in wast of gas in the ground.

(7) That the current infill drilling program within said Blanco-Mesaverde Pool has increased the need for a more precise definition of the vertical limits of such pool.

(8) That in December, 1976, the Commission appointed an industry-government study committee to examine the problem and report its findings to the Commission.

(9) That, based on geological evidence, the study committee recommended that the vertical limits of said Blanco-Mesaverde Pool be redefined as that interval from the Huerfanito bentonite marker to a point 500 feet below the top Point Lookout formation.

(10) That the Induction-Electrical Log of the El Paso Natural Gas Company Johnston State Well No. 1 located in Unit A of Section 32, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, should be the type log for said Blanco-Mesaverde Pool.

(11) That the Huerfanito bentonite marker and the top of the Point Lookout formation are found at depths of 3255 feet and 5100 feet, respectively, on said type log.

(12) That such definition should permit maximum development of productive horizons within the Blanco-Mesaverde Pool, thereby preventing waste.

(13) That there are several Chacra Sand gas pools developed along the Southwest flank of the Blanco-Mesaverde Pool which have been separately drilled and developed which would be included within the revised definition of the vertical limits of the Blanco-Mesaverde Pool.

(14) That such pools are completed in porous Chacra sands.

(15) That such porous Chacra sands lie South and West of a line generally running from the Northwest corner of Township 31 North, Range 13 West, NMPM, San Juan County, New Mexico, to the Southwest Corner of Township 24 North, Range 1 East, NMPM, Rio Arriba County, New Mexico, as more fully described on Exhibit "A" of this order.

(16) That to protect the correlative rights of the owners in said Chacra pools, the top vertical limit of said Blanco-Mesaverde Pool should be lowered to a point 750 feet below the Huerfanito bentonite marker within the area South and West of the line define in Finding No. (15) above and Exhibit "A".

(17) That there are 4 wells North and East of the line defined in Finding No. 15 above and Exhibit A which may be producing from fractured shale or siltstone zones equivalent to said Chacra sands and which may or may not be connected to other producing zones in said Blanco-Mesaverde Pool.

(18) That to protect the correlative rights of the owners of said four wells, the effective date of any redefinition of the vertical limits of said Blanco-Mesaverde Pool should be delayed to provide such owners with the opportunity to bring a case for an exception before the Commission.

(19) That with the safeguards provided in Finding No. (16) and No. (18) above, the proposed redefinition of the vertical limits of the Blanco-Mesaverde Pool will not violate correlative rights.

(20) That to prevent waste, the vertical limits of said Blanco-Mesaverde Pool should be redefined in accordance with the study committee recommendation as adjusted to protect Chacra gas pools as set out in Finding No. (14) above.

IT IS THEREFORE ORDERED:

(1) That effective August 1, 1977, the vertical limits of the Blanco-Mesaverde Pool, Rio Arriba and San Juan Counties, New Mexico, as previously described and defined by the Commission are hereby redefined as follows:

- A. That North and East of a line generally running from the Northwest corner of Township 31 North, Range 13 West, San Juan County, New Mexico, to the Southwest corner of Township 24 North, Range 1 East, NMPM, Rio Arriba County, New Mexico, as fully described on Exhibit "A" attached to this order, and incorporated herein by reference the vertical limits of the Blanco-Mesaverde Pool shall be from the Huerfanito bentonite marker to a point 500 feet below the top of the Point Lookout Sandstone.
- B. That South and West of the line described under A above, the vertical limits of the Blanco-Mesaverde Pool shall be from a point 750 feet below said Huerfanito bentonite marker to a point 500 feet below the top of the Point Lookout Sandstone.

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

Case No. 5893
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DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

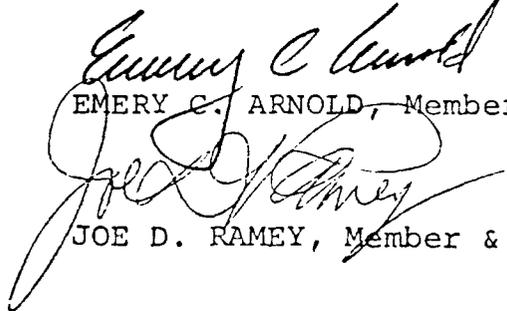
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



PHIL R. LUCERO, Chairman



EMERY C. ARNOLD, Member



JOE D. RAMEY, Member & Secretary

S E A L

jr/

EXHIBIT "A"

COMMISSION ORDER NO. R-5459

This exhibit defines the Northwest-Southeast trending line that divides the Blanco-Mesaverde Pool, Rio Arriba and San Juan Counties, New Mexico, for purposes of defining the vertical limits for said pool. Said line traverses the South side or west side of the sections listed below:

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM
Section 12: South

TOWNSHIP 31 NORTH, RANGE 13 WEST, NMPM
Sections 7 and 8: South
Section 16: West and South
Sections 15 and 14: South
Section 24: West and South

TOWNSHIP 31 NORTH, RANGE 12 WEST, NMPM
Section 19: South
Section 29: West and South
Sections 28 and 27: South
Section 35: West and South
Section 36: South

TOWNSHIP 30 NORTH, RANGE 11 WEST, NMPM
Section 6: West and South
Section 5: South
Section 9: West and South
Sections 10 and 11: South
Section 13: West and South

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM
Section 18: South
Section 20: West and South
Sections 21 and 22: South
Section 26: West and South
Section 25: South

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM
Section 31: West and South
Section 32: South

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM
Section 4: West and South
Section 3: South
Section 11: West and South
Section 12: South

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM
Section 18: West and South
Section 17: South
Section 21: West and South
Section 22: South
Section 26: West and South
Section 25: South

TOWNSHIP 29 NORTH, RANGE 7 WEST, NMPM

Section 31: West and South

Sections 32 through 36: South

TOWNSHIP 28 NORTH, RANGE 6 WEST, NMPM

Sections 7, 18, 19, 30, and 31: West

TOWNSHIP 27 NORTH, RANGE 6 WEST, NMPM

Section 6: West

Section 7: West and South

Sections 8 and 9: South

Section 15: West and South

Section 14: South

Section 24: West

Section 25: West and South

TOWNSHIP 27 NORTH, RANGE 5 WEST, NMPM

Section 31: West and South

Sections 32 through 36: South

TOWNSHIP 27 NORTH, RANGE 4 WEST, NMPM

Sections 31 through 36: South

TOWNSHIP 27 NORTH, RANGE 3 WEST, NMPM

Sections 31 and 32: South

TOWNSHIP 26 NORTH, RANGE 3 WEST, NMPM

Section 4: West and South

Sections 3 and 2: South

Section 12: West and South

TOWNSHIP 26 NORTH, RANGE 2 WEST, NMPM

Sections 7 and 8: South

Sections 16 and 22: West and South

Section 26: West

Section 35: West and South

TOWNSHIP 25 NORTH, RANGE 2 WEST, NMPM

Section 1: West and South

TOWNSHIP 25 NORTH, RANGE 1 WEST, NMPM

Section 7: West

Sections 18 and 20: West and South

Section 28: West

Section 33: West and South

TOWNSHIP 24 NORTH, RANGE 1 WEST, NMPM

Section 3: West

Sections 10 and 14: West and South

Section 24: West

Section 25: West and South

TOWNSHIP 24 NORTH, RANGE 1 EAST, NMPM

Section 31: West