

ALLOWABLE CALCULATION

The following New Mexico Statute affects the proration formulas established by the Oil Conservation Division:

70-2-17. Equitable allocation of allowable production; pooling; spacing.

A. The rules, regulations or orders of the Division shall, so far as it is practicable to do so, afford to the owner of each property in a pool the opportunity to produce his just and equitable share of the oil or gas, or both, in the pool, being an amount so far as can be practically determined, and so far as such can be practicably obtained without waste, substantially in the proportion that the quantity of the recoverable oil or gas, or both, under such property bears to the total recoverable oil or gas, or both, in the pool, and for this purpose to use his just and equitable share of the reservoir energy.

Based on the premise that this statute was followed when the proration formulas were established; then, the deliverability of one well in the Basin Dakota and Blanco Mesaverde Pools represented the recoverable reserves under each proration unit.

When the infill drilling orders for these pools were approved, and the deliverabilities of the two wells were added for allowable calculations; then, the definition must have been changed to indicate that the deliverability of one well then represented the recoverable reserves under one-half of each proration unit.

The use of the existing formula does not protect corelative rights with the application of the acreage factor in the deliverability portion of the formula as shown here:

$$\text{Allowable} = (\text{AF} \times \text{F1}) + [\text{AF} \times (\text{D}_1 + \text{D}_2) \times \text{F2}]$$

I propose the use of a formula which does not use the acreage factor in the deliverability portion of the formula as follows:

$$\text{Allowable} = (\text{AF} \times \text{F1}) + [(\text{D}_1 + \text{D}_2) \times \text{F2}]$$

BEFORE EXAMINER, STICGNER OIL CONSERVATION DIVISION
EXHIBIT NO. <u>4</u>
CASE NO. _____

EXAMPLES: BLANCO MESAVERDE GAS POOL

ASSUMPTIONS:

1. That two wells are on a standard 320-acre proration unit with deliverabilities of 200 and 500 Mcf respectively.
 2. That the acreage allocation factor, F_1 , = 2816.59; and the deliverability allocation factor, F_2 , = 18.318794. (These are the average factors for the Blanco Mesaverde Gas Pool for 1985.)
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By substitution in the **PRESENT FORMULA**:

ONE TWO-WELL UNIT:

$$\begin{aligned}\text{Allowable} &= (\text{AF} \times F_1) + [\text{AF} \times (D_1 + D_2) \times F_2] \\ &= (1.00 \times 2816.59) + [1.00 \times (200 + 500) \times 18.318794] \\ &= (2816.59) + [12823.155800] = 15639.745800 = \underline{\underline{15640 \text{ MCF}}}\end{aligned}$$

TWO ONE-WELL UNITS:

$$\begin{aligned}\text{Allowable}_1 &= (0.50 \times 2816.59) + (0.50 \times 200 \times 18.318794) \\ &= (1408.295) + (1831.879400) = 3240.174400 = \underline{\underline{3240 \text{ MCF}}}\end{aligned}$$

$$\begin{aligned}\text{Allowable}_2 &= (0.50 \times 2816.59) + (0.50 \times 500 \times 18.318794) \\ &= (1408.295) + (4579.698500) = 5987.993500 = \underline{\underline{5988 \text{ MCF}}}\end{aligned}$$

$$\text{TOTAL} = 3240 + 5988 = \underline{\underline{9228 \text{ MCF}}}$$

$$\underline{\underline{\text{DIFFERENCE}}} = \underline{\underline{15640}} - \underline{\underline{9228}} = \underline{\underline{6412 \text{ MCF}}}$$

By the use of the **PROPOSED FORMULA**:

ONE TWO-WELL UNIT:

$$\begin{aligned}\text{Allowable} &= (\text{AF} \times F_1) + [(D_1 + D_2) \times F_2] \\ &= (1.00 \times 2816.59) + [(200 + 500) \times 18.318794] \\ &= (2816.59) + (12823.155800) = 15639.745800 = \underline{\underline{15640 \text{ MCF}}}\end{aligned}$$

TWO ONE-WELL UNITS:

$$\begin{aligned}\text{Allowable}_1 &= (0.50 \times 2816.59) + (200 \times 18.318794) \\ &= (1408.295) + (3663.758800) = 5072.053800 = \underline{\underline{5072 \text{ MCF}}}\end{aligned}$$

$$\begin{aligned}\text{Allowable}_2 &= (0.50 \times 2816.59) + (500 \times 18.318794) \\ &= (1408.295) + (9159.397000) = 10567.692000 = \underline{\underline{10568 \text{ MCF}}}\end{aligned}$$

$$\text{TOTAL} = 5072 + 10568 = \underline{\underline{15640 \text{ MCF}}}$$

$$\underline{\underline{\text{DIFFERENCE}}} = \underline{\underline{15640}} - \underline{\underline{15640}} = \underline{\underline{0 \text{ MCF}}}$$

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. 9100
Order No. R-8440

APPLICATION OF C & E OPERATORS, INC.
FOR AN EXCEPTION TO RULE 5(a)2(2) OF
DIVISION ORDER NO. R-8170, AS AMENDED,
SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 4, 1987, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 2nd day of May, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) At the time of the hearing Division Case Nos. 9096, 9097, 9098, 9099, 9100 and 9101 were consolidated for the purpose of testimony.

(3) The applicant, C & E Operators, Inc., seeks an exception to Rule 5(a)2(2) of the General Rules for the Prorated Gas Pools of New Mexico as promulgated by Division Order No. R-8170, as amended, permitting the application of a full deliverability factor in the formula utilized in determining the allowable for the following two previously approved non-standard gas spacing and proration units, both in the Blanco-Mesaverde Pool and located in Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico:

- a) 158.54 acres, more or less, comprising the SW/4 of Section 8, approved by Division Order No. R-6601, dated March 13, 1981, and dedicated to the applicant's Aztec Well No. 8 located 1000

feet from the South line and 890 feet from the West line (Unit M) of said Section 8; and,

- b) 158.24 acres, more or less, comprising the SW/4 of Section 9, approved by Division Order No. R-6600, dated February 23, 1981, and dedicated to the applicant's Aztec Well No. 9 located 1095 feet from the South line and 1140 feet from the West line (Unit M) of said Section 9.

(4) In utilizing the current formula for calculating gas allocations in the Blanco-Mesaverde Pool as contained in said Order No. R-8170, according to the testimony presented at the hearing there exists an inequity in that the gas allowable assigned to a standard 320-acre proration unit (GPU) containing two wells is greater than the sum of the gas allowables assigned to two adjacent 160-acre non-standard gas proration units of equal deliverability.

(5) The effect of granting the application would be to substitute a deliverability (D) factor in place of the acreage times deliverability (AD) factor contrary to the applicable pool rules, and would create other inequities in the pool.

(6) The variation of GPU sizes is a common phenomenon in the Blanco-Mesaverde Pool; therefore, a pool-wide rule change would be a more appropriate approach to solving this problem rather than filing exceptions in each case such as this.

(7) Granting this application would also invite numerous applications for similar treatment and would discourage rather than encourage the formation of standard 320-acre GPU's, all of which could disrupt the allocation of gas on an equitable basis in the pool.

- (8) This application should therefore be denied.

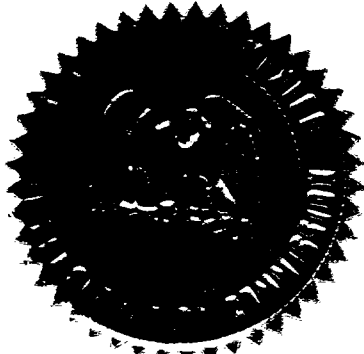
IT IS THEREFORE ORDERED THAT:

(1) The application of C & E Operators, Inc. for an exception to Rule 5(a)2(2) of the General Rules for the Prorated Gas Pools of New Mexico as promulgated by Division Order No. R-8170, as amended, permitting the application of a full deliverability factor in the formula utilized in determining the allowable for each of the following two previously approved non-standard gas spacing and proration units, both in the Blanco-Mesaverde Pool and located in Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico, is hereby denied:

- a) The SW/4 of Section 8, approved by Division Order No. R-6601, dated March 13, 1981, and dedicated to the applicant's Aztec Well No. 8 located 1000 feet from the South line and 890 feet from the West line (Unit M) of said Section 8; and,
- b) The SW/4 of Section 9, approved by Division Order No. R-6600, dated February 23, 1981, and dedicated to the applicant's Aztec Well No. 9 located 1095 feet from the South line and 1140 feet from the West line (Unit M) of said Section 9.

(2) 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.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

William J. Lemay
WILLIAM J. LEMAY
Director