

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 8614 DE NOVO
Order No. R-8025-A

APPLICATION OF YATES PETROLEUM
CORPORATION FOR AN EXCEPTION TO
DIVISION ORDER NO. R-5353, AS
AMENDED, ROOSEVELT COUNTY,
NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on January 7, 1986, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 26th day of February, 1986, 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 THAT:

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

(2) The applicant, Yates Petroleum Corporation (Yates) seeks an exception to the Special Rules and Regulations for the Bluit-San Andres Associated Pool as promulgated by Division Order No. R-5353, as amended, to authorize an unorthodox gas well location for its Bluestem "ZL" Federal Well No. 1 located 1650 feet from the North line and 2310 feet from the East line

of Section 20, Township 8 South, Range 38 East, NMPM, Roosevelt County, New Mexico.

(3) The applicant further seeks approval of a 160-acre non-standard gas spacing and proration unit comprising the S/2 NE/4 and N/2 SE/4 of said Section 20 to be dedicated to said well.

(4) The Special Pool Rules for the Bluitt-San Andres Associated Pool, promulgated by Oil Conservation Division (Division) Order No. R-5353, as amended, require that gas wells drilled to or completed in said pool be located not closer than 990 feet to the quarter section line nor closer than 330 feet to any quarter-quarter section line and dedicated to a 320-acre spacing and proration unit [Rule 2.(b)], and that oil wells be located within 150 feet of the center of a quarter-quarter section line and dedicated to an 80-acre spacing and proration unit. A well is classified as a gas well if it has a gas-liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons; if said ratio is less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons, it is then classified as an oil well [Rule 2.(a)].

(5) The matter originally came on for hearing at 8 a.m. on June 19, 1985, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

(6) At the June 19th hearing, Union Oil of California (Union), the operator of the immediate offsetting Bluitt-San Andres oil well and 80-acre standard spacing and proration unit consisting of the N/2 NE/4 of said Section 20, appeared and objected to the approval of an unorthodox gas well location for the aforementioned Bluestem "ZL" Federal Well No. 1 unless a penalty should be imposed on the allowable assigned to the unorthodox gas spacing and proration units.

(7) On September 18, 1985, Division Order No. R-8025 was entered which granted the Yates application for the unorthodox location and the non-standard spacing unit but which imposed a penalty upon the production from said Bluestem "ZL" Federal Well No. 1 to offset the advantage gained over the offset operator by virtue of the unorthodox location.

(8) The penalty factor set out in said order was derived utilizing factors based upon the percent deviation from the standard location for the pool, net additional area of theoretical drainage outside the proration unit than a well at a standard location, and the non-standard size of the spacing unit.

(9) On October 17, 1985, application for hearing De Novo was made by Yates and the matter was set for hearing before the Commission.

(10) The matter came on for hearing de novo on January 7, 1986.

(11) Yates objected to the manner by which the penalty on production was determined in Order No. R-8025.

(12) When speaking to the issue of authorizing exceptions to well location requirements, Division General Rule 104 G provides that:

"Whenever an exception is granted, the Division may take such action as will offset any advantage which the person securing the exception may obtain over other producers by reason of the unorthodox location."

(13) The records of the Division reflect that such action is commonly taken when a non-standard location is opposed by an offset operator.

(14) These same records also show that such action is in the form of a reduction in authority for the well at the non-standard location to produce.

(15) These records show that such reductions have taken the form of reduced acreage factors in prorated pools and production limitation factors in non-prorated pools.

(16) These records show that the factors taken into account in determining penalties to be applied to production have included net productive acres, net acre feet of pay, and other factors derived from geological and/or engineering evidence presented at hearing.

(17) The records show that when there is inadequate geological and/or engineering evidence presented at hearing upon which to base a penalty, the Division utilizes a penalty formula which takes into account the percentage variation of the proposed location from the nearest standard location and the theoretical net additional drainage off the assigned proration unit resulting from the unorthodox location.

(18) If a line projected from the closest standard location on a spacing unit is projected to and through a proposed non-standard well location, it will eventually cross into another spacing unit.

(19) At the standard location, the operator would enjoy a 100 percent right to produce from the spacing unit in question while at that point where the line crossed into another spacing unit such right would be zero.

(20) The procedure described in Finding No. (17) above yields a factor which diminishes the right to produce from 100 percent to zero percent as the requested non-standard well location approaches the boundary of the spacing unit.

(21) Theoretical net additional drainage may be determined by assuming radial drainage sufficient to drain the spacing unit in question and calculating how much more acreage off the spacing unit will be drained by the well at the unorthodox location than at a standard location.

(22) This theoretical net additional drainage yields a factor which is indicative of the possible advantage gained because of improved drainage from offset acreage resulting from the non-standard location.

(23) In the absence of adequate geological and/or engineering evidence to establish a penalty factor or procedure to offset any advantage gained over other producers, as a result of the non-standard location, a formula which utilizes the above-described factors is logical and serves to protect correlative rights.

(24) Union presented testimony to show that an error in calculation contained in said Order No. R-8025 should result in a higher penalty and lower allowable for said Bluestem "ZL" Federal Well No. 1.

(25) Both Yates and Union proposed that any penalty to be applied should be applied to said well's ability to produce rather than to its acreage factor.

(26) Implementation of such a penalty procedure would result in one well in the Bluit-San Andres Pool being prorated utilizing its deliverability (ability to produce) while all other wells would be prorated utilizing a "straight acreage" formula.

(27) Such a procedure would result in the establishment of two proration formulas in a single pool; would constitute a change in the special rules for the pool; is outside the call of this hearing; and, should not be considered.

(28) The subject well was spudded on May 21, 1984. At that time the applicant was not aware of the Bluit-San Andres

Associated Pool Rules and Division Order No. R-5353, as amended.

(29) On August 29, 1984, a production test performed on the subject well indicated it to be a gas well with a gas-oil ratio of 110,000 cubic feet of gas per barrel of liquid hydrocarbons.

(30) The evidence presented by Yates at this hearing established that said well is not draining the entire proposed 160-acre non-standard gas spacing unit but is instead draining only 50 acres.

(31) As not more than 50 acres are being drained, the full 160-acre non-standard gas spacing unit should not be approved.

(32) An 80-acre non-standard gas spacing and proration unit consisting of the S/2 NE/4 of said Section 20 should be approved to be dedicated to the subject well.

(33) A gas well on an 80-acre spacing unit in the Bluit-San Andres Associated Pool would receive a gas allowable equal to the casinghead gas allowable assigned to a well classified as an oil well in said pool which well was located on an 80-acre oil spacing and proration unit.

(34) As said gas allowables would be equal, any location penalty calculations utilizing variation from the standard location in this case should be based upon the standard location for an 80-acre spaced well (an oil well).

(35) The subject well is located 180 feet closer to the North and West lines of the spacing unit (35 percent) and 317 feet closer to the Northwest corner of the spacing unit (40 percent) than permitted by pool rules.

(36) Based upon a theoretical 80-acre drainage area, a well at the proposed unorthodox location would have a net increased drainage area outside the dedicated 80-acre tract of 10.33 acres more than a well at the closest standard location.

(37) This 10.33 acres is 12.9 percent, rounded to 13 percent, of 80 acres and represents the theoretical drainage acreage advantage gained over offset operators as a result of the unorthodox location.

(38) The factors representing the advantage gained as a result of the unorthodox location may be summarized and averaged as follows: 35 percent North footage factor, plus 35 percent West footage factor, plus 40 percent Northwest corner

footage factor, plus 13 percent net additional drainage factor, divided by four equals 31 percent.

(39) If, to offset the advantage gained over offset operators, the subject well's acre factor and resultant allowable were reduced by 31 percent, the acre factor yielded would equal 0.69 or the equivalent of a well with 55 acres in an 80-acre spaced pool ($31\% \times 80 \text{ acres} = 55 \text{ acres}$; $55 \text{ acres} \div 80 \text{ acres} = 0.69 \text{ acre factor}$).

(40) As the evidence in this case established that the subject well is only draining 50 acres, the well's gas allowable should be based upon the allowable which would be assigned a well in the Bluitt-San Andres Associated Pool having only 50 acres dedicated thereto.

(41) As the allowable assigned to a 50-acre well in said pool would be less than the allowable assigned resulting from use of the penalty factor calculated to offset the advantage gained as a result of the unorthodox location as determined above, no penalty factor should be assigned against the subject well's allowable but said well should receive a gas allowable based upon the allowable which would be assigned a well having only 50 acres dedicated thereto.

(42) Approval of the application subject to the terms and conditions of the above findings will not result in waste and will not violate correlative rights.

IT IS FURTHER ORDERED THAT:

(1) The application of Yates Petroleum Corporation for an exception to the Special Rules and Regulations for the Bluitt-San Andres Associated Pool, as promulgated by Division Order No. R-5353, as amended, authorizing an unorthodox gas well location is hereby approved for its Bluestem "ZL" Federal Well No. 1 located 1650 feet from the North line and 2310 feet from the East line of Section 20, Township 8 South, Range 38 East, NMPM, Roosevelt County, New Mexico.

(2) An 80-acre non-standard gas spacing and proration unit comprising the S/2 NE/4 of said Section 20 is hereby established and shall be dedicated to said well.

(3) Said well is hereby assigned 50 acres in the San Andres formation for purposes of determining its allowable.

(4) The application for a 160-acre non-standard gas spacing unit comprising the S/2 NE/4 and N/2 SE/4 of said Section 20 is hereby denied.

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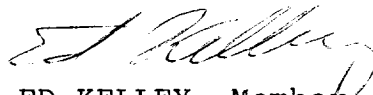
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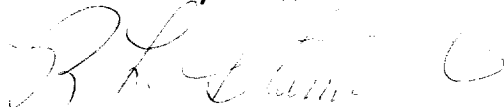
(5) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JIM BACA, Member


ED KELLEY, Member


R. L. STAMETS,
Chairman and Secretary

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