

Entered April 16, 1982  
JHR

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. 7521  
Order No. R-6948

APPLICATION OF WILLIAM B. BARNHILL  
FOR AN UNORTHODOX GAS WELL LOCATION,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 31, 1982, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 16th 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 applicant, William B. Barnhill, seeks approval of an unorthodox gas well location 660 feet from the South line and 660 feet from the West line of Section 35, Township 19 South, Range 25 East, NMPM, to test the Permo-Penn, Strawn, Atoka and Morrow formations, in the so-called "Boyd Channel" Area, Eddy County, New Mexico.
- (3) That the S/2 of said Section 35 is to be dedicated to the well.
- (4) That an offset operator, Chama Petroleum Company, appeared at the hearing and objected to approval of the aforesaid unorthodox location without penalty on the grounds that a well drilled at said location would drain gas from offsetting leases, thereby violating correlative rights.
- (5) That approval of the unorthodox location will improve applicant's geological prospect for encountering the Morrow formation in a thickened section of the Boyd Channel and will better enable it to produce the gas underlying the S/2 of the aforesaid Section 35.

(6) That said unorthodox location will also place applicant in a more favorable position to drain gas from the offsetting leases which drainage would not be compensated for by counter drainage.

(7) That such drainage without counter drainage would result in the impairment of offsetting correlative rights.

(8) That approval of the proposed unorthodox location should be considered only if an adequate penalty is imposed on production from such location to minimize the aforesaid drainage and thus protect correlative rights.

(9) That a well drilled at the proposed unorthodox location and having the S/2 of the section dedicated thereto would be located at a standard distance relative to the South boundary of the spacing and proration unit.

(10) That a well drilled at the proposed unorthodox location and having the S/2 of the section dedicated thereto would be located 1320 feet or 67 percent closer to the west boundary of the spacing and proration unit than a well drilled at a standard location.

(11) That the drainage pattern of a well located at the proposed location would be encroaching primarily on two presently undeveloped spacing and proration units, namely the S/2 of Section 34, Township 19 South, Range 25 East, NMPM, and the N/2 of Section 3, Township 20 South, Range 25 East, NMPM.

(12) That according to the best geological evidence available at the hearing, the aforesaid two spacing and proration units have a total of some 13,638.5 and 13,443.6 acre feet of pay, respectively, or an average of 13,541.1 acre feet apiece, whereas the S/2 of Section 35, being the spacing and proration unit to which the well drilled at the proposed location would be dedicated, has some 3450.3 acre feet of pay.

(13) That on an acre-feet- of-pay basis, the S/2 of Section 26 has 25.5 percent of the acre feet of pay as the average of the two most directly affected spacing and proration units.

(14) That in accordance with Finding No. (8) above, the proposed unorthodox location should only be approved subject to a production limitation factor, and such factor should be computed by averaging the variation from a standard location and comparable acre feet of pay as follows: distance from south line of section, 100 percent of standard; distance from west line of section, 33 percent of standard; comparison of acre feet of pay with affected offsetting units' acre feet of pay, 25.5

-3-

Case No. 7521

Order No. R-6948

percent, or, 100 percent plus 33 percent plus 25.5 percent divided by three equals 53 percent.

(15) That in the absence of any special rules and regulations for the prorationing of production from the subject well, the aforesaid production limitation factor should be applied against the well's ability to produce into the pipe line as determined by periodic tests.

(16) That in order to avoid premature abandonment and subsequent loss of recoverable reserves, provision should be made for a reasonable minimum allowable for the subject well, and 500,000 cubic feet of gas per day is a reasonable figure for a minimum allowable.

(17) That approval to drill the proposed well at the unorthodox location described in Finding No. (2) above, subject to the Production Limitation Factor described in Finding No. (14) above, will not impair but will protect correlative rights, will not cause waste, and should be given.

IT IS THEREFORE ORDERED:

(1) That the applicant, William B. Barnhill, is hereby authorized to drill a well to test the Permo-Penn, Strawn, Atoka and Morrow formations at a point 660 feet from the South line and 660 feet from the West line of Section 35, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, subject to a Production Limitation Factor of 0.53 applicable as described below.

(2) That in the absence of any Special Rules and Regulations prorating production from the subject well, the following Special Rules and Regulations for a non-prorated gas well shall apply, if the well is drilled at the location described in Paragraph (1) above.

SPECIAL RULES AND REGULATIONS  
FOR THE  
APPLICATION OF A "PRODUCTION LIMITATION FACTOR"  
TO A NON-PRORATED GAS WELL

APPLICATION OF RULES

RULE 1. These rules shall apply to the William B. Barnhill Morrow formation gas well located 660 feet from the South line and 660 feet from the West line of Section 35, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, which well's Production Limitation Factor of 0.53 shall be applied to the well's deliverability (as determined by the hereinafter set

-4-

Case No. 7521

Order No. R-6948

forth procedure) to determine its maximum allowable rate of production.

#### ALLOWABLE PERIOD

RULE 2. The allowable period for the subject well shall be six months.

RULE 3. The year shall be divided into two allowable periods commencing at 7:00 o'clock a.m. on January 1 and July 1.

#### DETERMINATION OF DELIVERY CAPACITY

RULE 4. Immediately upon connection of the well the operator shall determine the open flow capacity of the well in accordance with the Division "Manual for Back-Pressure Testing of Natural Gas Wells" then current, and the well's initial deliverability shall be calculated against average pipeline pressure in the manner described in the last paragraph on Page I-6 of said test manual.

RULE 5. The well's "subsequent deliverability" shall be determined twice a year, and shall be equal to its highest single day's production during the months of April and May or October and November, whichever is applicable. Said subsequent deliverability, certified by the pipeline, shall be submitted to the appropriate District Office of the Division not later than June 15 and December 15 of each year.

RULE 6. The Division Director may authorize special deliverability tests to be conducted upon a showing that the well has been worked over or that the subsequent deliverability determined under Rule 5 above is erroneous. Any such special test shall be conducted in accordance with Rule 4 above.

RULE 7. The operator shall notify the appropriate district office of the Division and all offset operators of the date and time of initial or special deliverability tests in order that the Division or any such operator may at their option witness such tests.

#### CALCULATION AND ASSIGNMENT OF ALLOWABLES

RULE 8. The well's allowable shall commence upon the date of connection to a pipeline and when the operator has complied with all appropriate filing requirements of the Rules and Regulations and any special rules and regulations.

RULE 9. The well's allowable during its first allowable period shall be determined by multiplying its initial deliverability by its production limitation factor.

RULE 10. The well's allowable during all ensuing allowable periods shall be determined by multiplying its latest subsequent deliverability, as determined under provisions of Rule 5, by its production limitation factor. If the well shall not have been producing for at least 60 days prior to the end of its first allowable period, the allowable for the second allowable period shall be determined in accordance with Rule 9.

RULE 11. Revision of allowable based upon special well tests shall become effective upon the date of such test provided the results of such test are filed with the Division's district office within 30 days after the date of the test; otherwise the date shall be the date the test report is received in said office.

RULE 12. Revised allowables based on special well tests shall remain effective until the beginning of the next allowable period.

RULE 13. In no event shall the well receive an allowable of less than 500,000 cubic feet of gas per day.

#### BALANCING OF PRODUCTION

RULE 14. January 1 and July 1 of each year shall be known as the balancing dates.

RULE 15. If the well has an underproduced status at the end of a six-month allowable period, it shall be allowed to carry such underproduction forward into the next period and may produce such underproduction in addition to its regularly assigned allowable. Any underproduction carried forward into any allowable period which remains unproduced at the end of the period shall be cancelled.

RULE 16. Production during any one month of an allowable period in excess of the monthly allowable assigned to the well shall be applied against the underproduction carried into the period in determining the amount of allowable, if any, to be cancelled.

RULE 17. If the well has an overproduced status at the end of a six-month allowable period, it shall be shut in until such overproduction is made up.

-6-

Case No. 7521  
Order No. R-6948

RULE 18. If, during any month, it is discovered that the well is overproduced in an amount exceeding three times its average monthly allowable, it shall be shut in during that month and during each succeeding month until it is overproduced in an amount three times or less its monthly allowable, as determined hereinabove.

RULE 19. The Director of the Division shall have authority to permit the well, if it is subject to shut-in pursuant to Rules 17 and 18 above, to produce up to 500 MCF of gas per month upon proper showing to the Director that complete shut-in would cause undue hardship, provided however, such permission shall be rescinded for the well if it has produced in excess of the monthly rate authorized by the Director.

RULE 20. The Division may allow overproduction to be made up at a lesser rate than permitted under Rules 17 or 18 above upon a showing that the same is necessary to avoid material damage to the well.

GENERAL

RULE 21. Failure to comply with the provisions of this order or the rules contained herein or the Rules and Regulations of the Division shall result in the cancellation of allowable assigned to the well. No further allowable shall be assigned to the well until all rules and regulations are complied with. The Division shall notify the operator of the well and the purchaser, in writing, of the date of allowable cancellation and the reason therefor.

IT IS FURTHER ORDERED:

(1) 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