

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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

**CASE NO. 10544
Order No. R-9748**

**APPLICATION OF YATES PETROLEUM
CORPORATION FOR AN UNORTHODOX
GAS WELL LOCATION, EDDY COUNTY,
NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 17, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 26th day of October, 1992, 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) The applicant, Yates Petroleum Corporation, seeks approval of an unorthodox gas well location for its proposed Diane "ALQ" Federal Well No. 1 to be located 660 feet from the North line and 860 feet from the West line (Unit D) of Section 23, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, to test all formations and/or pools from the top of the Wolfcamp formation to the base of the Morrow formation. The subject well is to be either dedicated to the N/2 of Section 23 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools within said vertical extent spaced on 320 acres, or all of Section 23 forming a standard 640-acre gas spacing and proration unit for the Undesignated Indian Basin-Upper Pennsylvanian Gas Pool.

(3) The subject well is located within one mile of the outer boundary of the Indian Basin-Upper Pennsylvanian Gas Pool and is therefore subject to the Special Rules and Regulations for said pool as promulgated by Division Order Nos. R-2440 and R-8170, as amended, which require standard 640-acre spacing and proration units with wells to be located no closer than 1650 feet from the outer boundary of the section nor closer than 330 feet from any governmental quarter-quarter section line.

(4) The subject well is also subject to the spacing and well location requirements of Division Rule No. 104(B) which requires standard 320-acre gas spacing for wells projected to the Wolfcamp formation or older with wells to be located no closer than 1980 feet from the nearest end boundary nor closer than 660 feet from the nearest side boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary.

(5) Geologic evidence presented indicates that the primary target within the subject well is the Upper Pennsylvanian interval.

(6) Marathon Oil Company (Marathon) and Chevron USA Inc. (Chevron), operators of Indian Basin-Upper Pennsylvanian offset wells in Sections 14 and 15, respectively, both appeared at the hearing in opposition to the application.

(7) The geologic evidence and testimony presented by the applicant in this case indicates that:

- a) three wells, located in Units F, J and A of Section 23, have previously been drilled to and have tested non-commercial in the Indian Basin-Upper Pennsylvanian Gas Pool;
- b) a well at the proposed location should encounter approximately 100 feet of dolomite within the Indian Basin-Upper Pennsylvanian Gas Pool while a well drilled at a standard location should encounter approximately 25 feet of dolomite;
- c) as defined by the zero dolomite boundary, approximately 145 acres comprising essentially the NW/4 of Section 23 should be productive of gas from the Indian Basin-Upper Pennsylvanian Gas Pool.

(8) According to testimony, opponents' geologic interpretation of the Indian Basin-Upper Pennsylvanian Gas Pool underlying Section 23 does not significantly differ from applicant's interpretation.

(9) The geologic evidence presented indicates that approval of the proposed unorthodox location should enable the applicant to produce the gas reserves underlying Section 23.

(10) The proposed unorthodox location has been approved by the Bureau of Land Management.

(11) All three of the parties involved in this case agree that a production penalty should be imposed on the subject well in the Indian Basin-Upper Pennsylvanian Gas Pool. None of the parties proposed that the subject well be penalized for Morrow production.

(12) Approval of the proposed unorthodox location will afford the applicant the opportunity to produce its just and equitable share of the gas in the affected pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights provided that a production penalty is imposed on the subject well.

(13) Yates proposed that a production penalty in the range of 40-45% be imposed on the subject well. This proposed penalty was derived by averaging the following three factors:

- a) deviation from a standard location in the north/south direction, $\frac{(1650' - 660')}{1650'}$ or 0.60;
- b) deviation from a standard location in the east/west direction, $\frac{(1650' - 860')}{1650}$ or 0.48;
- c) drainage encroachment (double circle method) based upon a drainage area of 640 acres, $\frac{172 \text{ acres}}{640 \text{ acres}}$ or 0.27.

(14) The Indian Basin-Upper Pennsylvanian Gas Pool is a prorated gas pool.

(15) Yates proposed that the production penalty be applied against the non-marginal gas allowable for a full acreage factor which, according to testimony, has recently averaged approximately 5.6 MMCFG per day.

(16) Yates presented engineering evidence which indicates that Section 23, prior to the occurrence of offset well drainage, had recoverable gas reserves of approximately 3.2 BCF. Current recoverable gas reserves underlying Section 23 are approximately 1.6 BCF.

(17) Yates expects initial production from the subject well to be approximately 3.0 MMCFG per day.

(18) Assuming a current gas allowable of 5.6 MMCFG per day and utilizing the production penalty proposed by Yates, the subject well will be authorized to produce approximately 3.08 MMCFG per day.

(19) Yates further presented evidence which indicates that at an initial producing allowable of 3.08 MMCFG per day, and assuming a 35 percent decline per year, the subject well will recover approximately 2.5 BCF of gas.

(20) Yates contends that the subject well should be allowed the opportunity to recover up to 3.2 BCF of gas, being the amount of gas reserves originally underlying Section 23.

(21) Chevron proposed that a production penalty of 61 percent be imposed on the subject well.

(22) Chevron's proposed penalty was derived by averaging three factors, these being north/south and east/west deviation factors (as described in Finding No. 13 (a) and (b) above), and a productive acreage factor of 163.6 acres/640 acres or 0.26.

(23) The production penalty proposed by Yates in this case will not result in limiting the subject well's production.

(24) Extensive evidence was presented by the parties involved in this case with regards to the methods the Division has previously utilized in assigning production penalties in similar cases in the Indian Basin-Upper Pennsylvanian Gas Pool.

(25) This evidence indicates that the Division has generally utilized productive acreage either singularly or in combination with deviation from a standard well location to assign production penalties.

(26) The evidence presented by the applicant indicates that it has held the lease in Section 23 for several years and has had ample opportunity during this period to drill a well to protect its acreage from drainage.

(27) The responsibility for not protecting its correlative rights lies with the applicant in this case, and, it is unreasonable to assume, at this late stage of development, that the subject well should be allowed to recover substantially more than the remaining gas reserves underlying Section 23.

(28) Productive acreage should be utilized in calculating a production penalty inasmuch as the amount of such acreage was essentially not in dispute in this case.

(29) The production penalty proposed by Chevron will allow the applicant, according to its own evidence, to recover at least 1.6 BCFG from Section 23.

(30) Adoption of the production penalty proposed by Chevron will allow the applicant the opportunity to recover the remaining gas reserves underlying Section 23 and will protect the correlative rights of Chevron and Marathon.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to drill its Diane "ALQ" Federal Well No. 1 at an unorthodox gas well location 660 feet from the North line and 860 feet from the West line (Unit D) of Section 23, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, to test all formations and/or pools from the top of the Wolfcamp formation to the base of the Morrow formation.

(2) If completed in the Indian Basin-Upper Pennsylvanian Gas Pool, all of Section 23 shall be dedicated to the above-described well forming a standard 640-acre gas spacing and proration unit for said pool.

(3) If completed in any formation and/or pool spaced on 320-acres, the N/2 of Section 23 shall be dedicated to the above-described well forming a standard 320-acre gas spacing and proration unit.

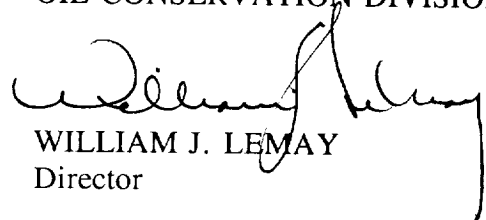
(4) For purposes of assigning a gas allowable, the subject well and proration unit is hereby assigned an acreage factor of 0.39 in the Indian Basin-Upper Pennsylvanian Gas Pool.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

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