

**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. 10519
Order No. R-9731**

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

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 20, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 22nd day of September, 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 to drill its proposed Diamond "AKI" Federal Well No. 1 at an unorthodox location 360 feet from the South line and 2080 feet from the West line (Unit N) of Section 34, Township 20 South, Range 24 East, NMPM, Undesignated South Dagger Draw-Upper Pennsylvanian Associated Pool, Eddy County, New Mexico.

(3) The applicant proposes to dedicate the W/2 of Section 34 to the subject well forming a standard 320-acre spacing and proration unit for either oil or gas.

(4) The subject well is located within one mile of the outer boundary of the South Dagger Draw-Upper Pennsylvanian Associated Pool and is therefore subject to the Special Rules and Regulations for said pool as promulgated by Division Order No. R-5353, as amended, which require standard 320-acre oil or gas spacing units with wells to be located no closer than 660 feet from either the end or side boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary.

(5) Conoco Inc., the owner and operator of Irregular Section 34 and a 56% working interest owner in Irregular Section 35, both in Township 20 1/2 South, Range 23 East, NMPM, and the owner of the E/2 of Section 34, Township 20 South, Range 24 East, NMPM, appeared at the hearing in opposition to the application.

(6) Yates is a 44% working interest owner and the operator of Irregular Section 35, Township 20 1/2 South, Range 23 East, NMPM.

(7) Applicant's evidence and testimony indicates that the subject well was initially staked at a standard location 660 feet from the South line and 1980 feet from the West line of Section 34; however, this location fell within the 100 year flood plain of Box Canyon and within an archaeological site.

(8) The originally staked location was denied by the Bureau of Land Management.

(9) In its attempt to relocate the subject well, the applicant utilized geologic as well as topographic considerations.

(10) Applicant's geologic evidence and testimony indicates that the dolomite pay section within the subject pool thins to the north and west of the originally proposed standard location.

(11) Applicant's geologic evidence further indicates that by moving the subject well to the east and south of the original location, a greater amount of dolomite should be encountered, which should increase the likelihood of obtaining commercial production.

(12) The applicant has considered directionally drilling the subject well from the proposed location to a standard bottomhole location; however, applicant considers the risks associated with directional drilling to be too severe in this area.

(13) Both Yates and Conoco presented very similar geologic interpretations of the Canyon dolomite reservoir underlying Section 34.

(14) Both Yates and Conoco agree that the subject well should be a gas producer in this area of the pool. In addition, both Yates and Conoco agree that a production penalty should be imposed on the subject well.

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

(16) 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.

(17) Yates proposed that a 23% production penalty 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, $\frac{(660' - 360')}{660'}$ or 0.45;
- b) deviation from a standard location in the east/west direction, $\frac{(660' - 560')}{660'}$ or 0.15;
- c) drainage encroachment (double circle method) based upon a drainage area of 320 acres, 30 acres/320 acres or .10;

(18) Yates further proposed that the production penalty be applied against the casinghead gas limit for the South Dagger Draw-Upper Pennsylvanian Gas Pool, which is currently 14.0 MMCFG per day.

(19) The production penalty proposed by Yates would result in a gas allowable for the subject well of approximately 10.78 MMCFG per day.

(20) The evidence presented in this case indicates that the two best gas wells in this area of the pool to date have potential for slightly over 1.0 MMCFG per day.

(21) Conoco proposed that a 65% production penalty be imposed on the subject well. The proposed allowable of 35% was derived by averaging the north/south and east/west factors as described in Finding No. (17) above, (which results in an allowable of 70%) and multiplying said allowable by 50%. The 50% factor contained therein represents the percentage of acreage Conoco purports to be productive of gas within the W/2 of Section 34.

(22) In addition, Conoco proposed that the production penalty be applied against the well's ability to produce as determined from an initial potential test.

(23) The production penalty proposed by Yates in this case will not result in limiting the subject well's production and will not serve to protect the correlative rights of Conoco.

(24) The production penalty proposed by Conoco in this case is somewhat excessive in that it takes into account productive acreage and utilizes this factor to compound the average of the well deviation factors.

(25) In addition, although the Canyon dolomite reservoir has been similarly mapped by both parties, there is certainly no agreement as to the amount of productive acreage underlying the W/2 of Section 34.

(26) Testimony by Conoco indicates that they intend to re-enter its Preston Federal Well No. 4, currently temporary abandoned, located in Unit P of Irregular Section 34 and attempt to complete in the South Dagger Draw-Upper Pennsylvanian Associated Pool. In addition, Conoco may drill a well in the E/2 of Section 34.

(27) Such action, if taken by Conoco, will provide some degree of protection from the advantage gained by Yates' unorthodox location.

(28) The production penalty imposed on the subject well should be based upon the well's north/south and east/west average deviation from a standard location, $(0.45 + 0.15)/2$ or 30%.

(29) An allowable factor of .70 for Upper Pennsylvanian production will prevent waste and protect the correlative rights of the applicant as well as Conoco and should therefore be adopted.

(30) The aforesaid production limitation factor should be applied against the well's ability to produce as determined from an initial potential test.

(31) The applicant should be required to notify Conoco and the Division of the date and time such initial potential test is to be conducted in order that said test may be witnessed.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to drill its Diamond "AKI" Federal Well No. 1 at an unorthodox location 360 feet from the South line and 2080 feet from the West line (Unit N) of Section 34, Township 20 South, Range 24 East, NMPM, Undesignated South Dagger Draw-Upper Pennsylvanian Associated Pool, Eddy County, New Mexico.

(2) The W/2 of Section 34 shall be dedicated to the subject well forming a standard 320-acre spacing and proration unit for either oil or gas.

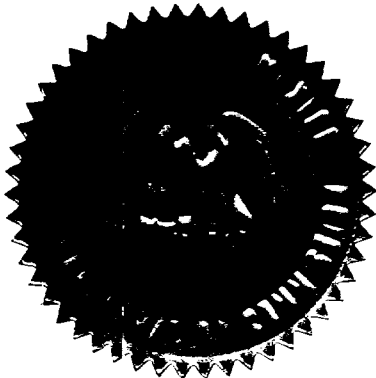
(3) Upon completion of the well, the applicant shall conduct an initial potential test in order to determine the well's ability to produce.

(4) The applicant shall notify Conoco and the Division of the date and time such initial potential test is to be conducted in order that said test may be witnessed.

(5) The subject well is hereby assigned a production limitation factor of 70%. The well's daily production shall be limited to 70% of the rate it is capable of producing as determined from the above-described initial potential test.

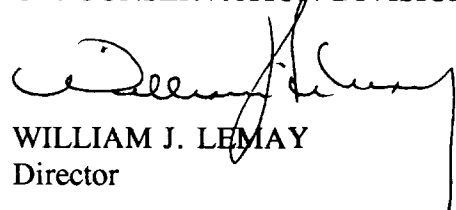
(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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



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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director