

**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. 11235
Order No. R-10372**

**APPLICATION OF YATES PETROLEUM
CORPORATION FOR AN UNORTHODOX
OIL WELL LOCATION AND SIMULTANEOUS
DEDICATION, EDDY COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 6, 1995, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 24th day of May, 1995, 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 (Yates), seeks approval to drill its Aspden "AOH" Federal Com Well No. 2 at an unorthodox oil well location 330 feet from the South line and 1980 feet from the West line (Unit N) of Section 29, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, to test the North Dagger Draw-Upper Pennsylvanian Pool.

(3) This well is to be simultaneously dedicated to an existing standard 160-acre spacing and proration unit comprising the SW/4 of Section 29, which is currently dedicated to the applicant's Boyd "X" State Com Well No. 4 located in Unit K, the Boyd "X" State Com Well No. 2 located in Unit L, and the Aspden "AOH" Federal Com Well No. 1 located in Unit M.

(4) The proposed well is located within the North Dagger Draw-Upper Pennsylvanian Pool which is currently governed by Special Rules and Regulations as promulgated by Division Order No. R-4691, as amended, which require standard 160-acre spacing and proration units with wells to be located no closer than 660 feet from the outer boundary of the spacing unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, an oil allowable of 700 barrels per day, and a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil.

(5) Although the standard spacing within the North Dagger Draw-Upper Pennsylvanian Pool is 160 acres, the established practice within this pool is to drill a well on each 40-acre tract within a standard proration unit.

(6) Conoco Inc. (Conoco), the operator of the NW/4 of Section 32, being the affected offset acreage, appeared at the hearing in opposition to the application.

(7) Within the NW/4 of Section 32 Conoco currently operates the Joyce Federal Well No. 1, located in Unit D, which was recently completed in the North Dagger Draw-Upper Pennsylvanian Pool. In addition, Conoco plans to drill, in 1995, two additional wells in the North Dagger Draw-Upper Pennsylvanian Pool within this quarter section.

(8) In addition to Conoco, the Division received correspondence from UMC Petroleum Corporation, being the lessee of the N/2 NW/4 of Section 32 (Federal Lease No. NM-0553777), stating its objection to Yates' application in this case.

(9) Due to the existence of the Boyd "X" State Com Well Nos. 2 and 4, and the Aspden "AOH" Federal Com Well No. 1, the applicant seeks authority to drill its proposed well in the only quarter-quarter section within the SW/4 of Section 29 that does not contain a North Dagger Draw-Upper Pennsylvanian Pool producing well.

(10) According to evidence and testimony presented by Yates, it originally proposed the drilling of the Aspden "AOH" Federal Com Well No. 2 at a standard location 660 feet from the South line and 1980 feet from the West line of Section 29. This well location fell within the Seven Rivers Draw which traverses the SE/4 SW/4 of Section 29 generally in a northeast to southwest direction. This well location was denied by the United States Bureau of Land Management (USBLM).

(11) Mr. Ken Beardemphl, a landman for Yates Petroleum Corporation, testified that he and Mr Barry Hunt, a representative of the USBLM, actually walked the surface of the proposed well sites within the SE/4 SW/4 of Section 29. Mr. Beardemphl testified that:

- a) within the SE/4 SW/4 of Section 29 there exists an additional drainage channel which lies just to the north of the Seven Rivers Draw. This drainage channel extends northward to a point approximately 1390 feet from the South line of Section 29;
- b) the presence of the Seven Rivers Draw and the additional drainage channel effectively precludes the drilling of the proposed well within this quarter-quarter section north of a location 330 feet from the South line; and,
- c) moving the proposed well location in an east or west direction would only slightly reduce the encroachment towards the NW/4 of Section 32.

(12) Conoco contends that there are well locations within the SE/4 SW/4 of Section 29 available to Yates to drill its proposed well that do not encroach towards Conoco's acreage.

(13) Conoco presented as evidence an aerial photograph of the SW/4 of Section 29 which shows the location of the Seven Rivers Draw.

(14) Conoco contends that:

- a) the well can be moved north and east of its current proposed location by following the trend of the Seven Rivers Draw, thereby reducing the encroachment towards the NW/4 of Section 32; and,
- b) the USBLM will approve a well location 1160 feet from the South line and 1980 feet from the West line of Section 29. This is based upon a written statement contained within the USBLM "Well-site Evaluation Field Form" which was filed by Mr. Barry Hunt when evaluating the originally proposed location of 660 feet from the South line and 1980 feet from the East line on December 19, 1994. The evaluation contained Mr. Hunt's recommendation to "move 330 feet south or at least 500 feet north (unorthodox)".

(15) Conoco's witness in this matter has not undertaken an on-site examination of the SE/4 SW/4 of Section 29.

(16) The testimony and evidence presented by Yates, including actual photographs of various well locations within the SE/4 SW/4 of Section 29, does demonstrate that the proposed well cannot be drilled north of a location 330 feet from the South line and 1980 feet from the West line of Section 29.

(17) Geologic evidence presented by the applicant indicates that the proposed unorthodox location is geologically inferior to a standard location inasmuch as 20-30 feet of structure and 30 feet of dolomite pay is lost.

(18) Yates proposed that no production penalty be assessed against the Aspden "AOH" Federal Com Well No. 2, however, in the event the Division determined that a production penalty was justified, Yates proposed that a production penalty of thirteen (13) percent be assessed against the well's initial potential.

(19) Yates' proposed penalty was determined by calculating the drainage area encroachment towards Conoco's acreage based upon 160-acre drainage.

(20) Conoco requested that the proposed unorthodox location be denied based upon the following:

- a) Conoco's correlative rights will be adversely affected by the encroachment towards its acreage and by the fact that the proposed well will be located structurally higher in the reservoir and in a thicker pay section than Conoco's wells;
- b) there is no precedent in the North Dagger Draw-Upper Pennsylvanian Pool for allowing a well to encroach closer than 660 feet to an adjoining spacing unit with different ownership;
- c) if the Division approves the subject application, the Aspden "AOH" Federal Com Well No. 2 will be located 990 feet from its proposed Joyce Federal Well No. 2 which will be located at a standard location in Unit C of Section 32;
- d) Conoco contends that its engineering data shows that well interference can commonly be observed between wells drilled at standard locations on 40-acre density within this pool since they typically drain more than 40 acres. Conoco presented engineering evidence which does show that the decline rates of certain wells in the pool dramatically increased within a very short period of time when offset production was established and initiated;

- e) a production penalty imposed against the subject well will not be effective in protecting Conoco's correlative rights for the following reasons:
 - 1) the pool rules for the North Dagger Draw-Upper Pennsylvanian Pool allow the drilling of at least four wells on a standard 160-acre proration unit. The allowable assigned to the unit (700 BOPD) may be produced from any well within the unit in any proportion. Even if the penalty were imposed on the entire proration unit's allowable, the applicant would retain the ability to produce the entire allowable from the subject well, and, depending on its ability to produce, the well could conceivably produce at its maximum potential, thereby not affording Conoco any protection;
 - 2) the initial potential of a well in the North Dagger Draw-Upper Pennsylvanian Pool is customarily two to three times greater than the well's actual producing rate after the first few months of initial production. A penalty based upon the proposed well's initial potential may not effectively limit the well's production after a relatively short period of time.

(21) The evidence and testimony in this case indicates that topographical conditions within the SE/4 SW/4 of Section 29 preclude the drilling of the Aspden "AOH" Federal Com Well No. 2 at a standard oil well location.

(22) Denial of the proposed unorthodox oil well location would effectively preclude Yates from developing the oil and gas reserves underlying the SE/4 SW/4 of Section 29, thereby violating its correlative rights.

(23) In order to provide Yates the opportunity to produce its just and equitable share of the oil and gas in the North Dagger Draw-Upper Pennsylvanian Pool underlying the SE/4 SW/4 of Section 29, the application for an unorthodox oil well location should be approved.

(24) In order to provide some measure of protection to Conoco for the encroachment towards its acreage, some type of allowable restriction should be instituted against the subject well.

(25) In terms of limiting production from the subject well, a penalty imposed on the proration unit's allowable or a penalty imposed on the subject well's initial potential are not effective.

(26) At the request of the Division Examiner, both Conoco and Yates submitted proposed draft orders in this case. In its proposed order, Conoco suggested that it would agree to the following proposal:

- a) a non-standard 40-acre spacing and proration unit should be established within the North Dagger Draw-Upper Pennsylvanian Pool comprising the SE/4 SW/4 of Section 29. This non-standard unit should be dedicated to the proposed well and should be assigned an allowable of 175 BOPD ($700 \text{ BOPD} \times 0.25$);
- b) a non-standard 120-acre spacing and proration unit should be established within the North Dagger Draw-Upper Pennsylvanian Pool comprising the N/2 SW/4 and SW/4 SW/4 of Section 29. This non-standard unit should be dedicated to the Boyd "X" State Com Well Nos. 2 and 4 and the Aspden "AOH" Federal Com Well No. 1 and should be assigned an allowable of 525 BOPD ($700 \text{ BOPD} \times 0.75$).

(27) Applicant testified that it expects the Aspden "AOH" Federal Com Well No. 2 to produce at an initial rate of approximately 500-800 barrels of oil per day.

(28) The Aspden "AOH" Federal Com Well No. 1, and the Boyd "X" State Com Well Nos. 2 and 4 are currently producing at rates of approximately 161, 201 and 112 barrels of oil per day, respectively.

(29) The total unused allowable within the subject proration unit at the current time is 226 barrels of oil per day.

(30) Production data indicates that the Boyd "X" State Com Well No. 4 initially produced at a rate of approximately 650 BOPD, however, within a period of 3-1/2 months the well had declined to a rate less than 200 BOPD. Similarly, the Aspden "AOH" Federal Com Well No. 1 initially produced at a rate of approximately 500 BOPD, however, within a period of 3 1/2 months, the well had declined to a rate less than 200 BOPD.

(31) If the Aspden "AOH" Federal Com Well No. 2 behaves similarly to the aforesaid Boyd "X" State Com Well No. 4 and Aspden "AOH" Federal Com Well No. 1, an oil allowable of 175 BOPD is fair and reasonable.

(32) Although Conoco's proposal is beyond the call of this case, it represents a reasonable and effective solution to the complex situation.

(33) The applicant should be authorized to drill its Aspden "AOH" Federal Com Well No. 2 at the proposed unorthodox location, provided however, such authorization should be contingent upon Yates applying for and obtaining Division approval to establish two non-standard proration units as described in Finding No. (26) above. Such authorization is further contingent upon the assignment of allowable as proposed by Conoco.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to drill its Aspden "AOH" Federal Com Well No. 2 at an unorthodox oil well location 330 feet from the South line and 1980 feet from the West line (Unit N) of Section 29, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, to test the North Dagger Draw-Upper Pennsylvanian Pool.

PROVIDED HOWEVER THAT, such authorization shall be contingent upon Yates Petroleum Corporation applying for and obtaining Division approval to establish two non-standard proration units within the North Dagger Draw-Upper Pennsylvanian Pool described as follows:

- a) a non-standard 40-acre spacing and proration unit comprising the SE/4 SW/4 of Section 29. This non-standard unit shall be dedicated to the proposed Aspden "AOH" Federal Com Well No. 2 and should be assigned an allowable of 175 BOPD;
- b) a non-standard 120-acre spacing and proration unit comprising the N/2 SW/4 and SW/4 SW/4 of Section 29. This non-standard unit should be dedicated to the Yates Petroleum Corporation Boyd "X" State Com Well Nos. 2 and 4 and the Aspden "AOH" Federal Com Well No. 1 and should be assigned an allowable of 525 barrels of oil per day.

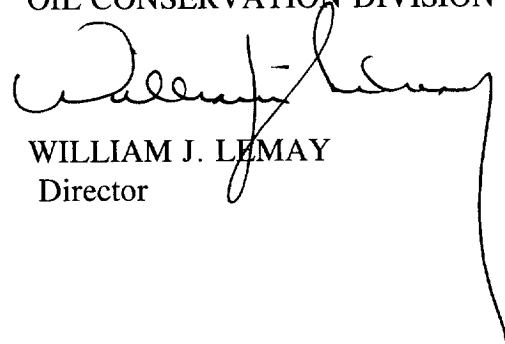
(2) The Aspden "AOH" Federal Com Well No. 2 shall not be assigned an oil allowable in the North Dagger Draw-Upper Pennsylvanian Pool until such time as the two non-standard oil proration units are established by the Division.

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

CASE NO. 11235
Order No. R-10372
Page -8-

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

STATE OF NEW MEXIC
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read 'William J. Lemay', is written over the printed name and title. The signature is fluid and cursive, with a long vertical stroke extending downwards from the end of the name.

WILLIAM J. LEMAY
Director

S E A L