

**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. 10863
Order No. R-10022**

**APPLICATION OF YATES PETROLEUM
CORPORATION FOR A HORIZONTAL
DIRECTIONAL DRILLING PILOT PROJECT
AND SPECIAL OPERATING RULES THEREFOR,
CHAVES COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 4, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 23rd day of November, 1993, 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 authority to initiate a horizontal directional drilling pilot project in the Tomahawk-San Andres Pool underlying the SW/4 of Section 36, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, thereby creating a non-standard 160-acre oil spacing and proration unit for said pool.

(3) The applicant further seeks authority to horizontally drill its proposed Loveless "LQ" State Well No. 9 at a surface location 990 feet from the South line and 2310 feet from the West line (Unit N) of Section 36 in the following unconventional manner:

Drill vertically to a depth of 4,300 feet. Log well to determine top and bottom of P-2 pay interval and fracture orientation within the San Andres formation. Plug back to a depth of 3,545 feet and kick off from the vertical at this depth drilling in an estimated westerly direction building angle so as to penetrate the top of the P-2 interval at a true vertical depth of approximately 4,045 feet. Continue drilling horizontally a distance of approximately 1,710 feet at such an angle so as to bottom said wellbore at the base of the P-2 interval at a true vertical depth of approximately 4,145 feet.

(4) The applicant further seeks:

- a) the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area limiting the horizontal or producing portion of the wellbore such that it can be no closer than 100 feet from the outer boundary of the project area;**
- b) approval of a 160-acre non-standard oil proration unit comprising the SW/4 of Section 36;**
- c) a special project allowable equal to four times the normal allowable for a standard 40-acre spacing unit.**

(5) The proposed well is located within the Tomahawk-San Andres Pool which is currently governed by Statewide Rules and Regulations which require standard 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit, a standard oil allowable of 80 barrels of oil per day, and a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

(6) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore, which is experimental in nature, should encounter a substantially greater number of natural fractures within the P-2 member of the San Andres formation than would a conventional wellbore, which should substantially increase the productivity of the subject well and which should ultimately result in the recovery of a greater amount of oil and gas from the proposed project area, thereby preventing waste.

(7) Petroleum Development Corporation, the only affected offset operator, expressed its support of Yates' application by letter which was submitted as evidence in this case.

(8) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(9) The SW/4 of Section 36 is currently being developed in the Tomahawk-San Andres Pool by the Loveless "LQ" State Well Nos. 4, 6, 7 and 8 located, respectively, in Units K, L, M and N. All of these wells are currently marginal producing wells in the subject pool.

(10) Horizontal drilling within the SW/4 of Section 36 should result in the recovery of a significant volume of oil and gas which will otherwise not be recovered by the existing conventional vertical wellbores, thereby preventing waste.

(11) In the interest of conservation and prevention of waste, the application of Yates Petroleum Corporation for a horizontal directional drilling project should be approved.

(12) According to applicant's evidence, the proposed 100 foot setback from the outer boundary of the project area will allow the flexibility to extend the wellbore the maximum distance.

(13) The project allowable should be based upon the number of standard 40-acre proration units within the project area which are developed or traversed by the horizontal wellbore, or $(4 \times 80 \text{ BOPD}) = 320 \text{ BOPD}$.

(14) The applicant should be required to determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(15) The applicant should notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(16) The applicant should be required to submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to initiate a horizontal directional drilling pilot project in the Tomahawk-San Andres Pool underlying the SW/4 of Section 36, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, thereby creating a non-standard 160-acre oil spacing and proration unit for said pool, also hereby approved.

(2) The applicant is further authorized to horizontally drill its Loveless "LQ" State Well No. 9 at a surface location 990 feet from the South line and 2310 feet from the West line (Unit N) of Section 36 in the following unconventional manner:

Drill vertically to a depth of 4,300 feet. Log well to determine top and bottom of P-2 pay interval and fracture orientation within the San Andres formation. Plug back to a depth of 3,545 feet and kick off from the vertical at this depth drilling in an estimated westerly direction building angle so as to penetrate the top of the P-2 interval at a true vertical depth of approximately 4,045 feet. Continue drilling horizontally a distance of approximately 1,710 feet at such an angle so as to bottom said wellbore at the base of the P-2 interval at a true vertical depth of approximately 4,145 feet.

(3) The horizontal or producing portion of the wellbore shall be located no closer than 100 feet from the outer boundary of the project area.

(4) The applicant shall determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(5) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

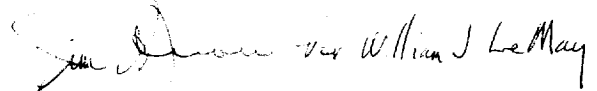
(6) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

(7) The allowable assigned to the project area in the Tomahawk-San Andres Pool shall be equal to 320 barrels of oil per day.

(8) Jurisdiction of this cause 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

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