

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. 9670
ORDER NO. R-8917-A

APPLICATION OF STEVENS OPERATING CORPORATION
TO AMEND DIVISION ORDER NO. R-8917,
DIRECTIONAL DRILLING, AND AN UNORTHODOX
OIL WELL LOCATION, CHAVES COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 10, 1989, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 18th day of May, 1989, 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) By Division Order No. R-8917, dated April 19, 1989, the applicant in Case No. 9617, Curry and Thornton, was authorized to drill a well to test the North King Camp-Devonian Pool at an unorthodox oil well location 1980 feet from the South line and 2475 feet from the West line (Unit K) of Section 9, Township 14 South, Range 29 East, NMPM, Chaves County, New Mexico. Said Order also approved a 160-acre non-standard oil proration unit comprising the E/2 W/2 of Section 9 to be dedicated to the above-described well.

(3) Said Order No. R-8917 also set forth a penalty to be assessed against the top unit allowable assigned to the well by utilizing the following formula, based on the actual bottomhole location of the wellbore to be determined by a directional survey of the completed well:

- a. a penalty (P_1) based on the proportion of distance the actual location is moved toward the boundary from the standard location;

- b. a penalty (P_2) based on the proportion of distance the actual location is moved toward the nearest well from the minimum distance under the pool rules; and
- c. the product of $(1-P_1) \times (1-P_2)$.

(4) The applicant in the immediate case, Stevens Operating Corporation, which has replaced Curry and Thornton as operator of the E/2 W/2 of said Section 9, now seeks to amend said Division Order No. R-8917, and in lieu of drilling a new well at the previously authorized unorthodox oil well location, be permitted to re-enter the plugged and abandoned Philtex Oil Company Honolulu Federal Well No. 1 located 1980 feet from the South and West lines (Unit K) of said Section 9, wherein the applicant proposes to deviate said well so as to penetrate the North King-Camp Devonian Pool at an unorthodox bottomhole oil well location within 500 feet west of a point 1980 feet from the South line and 2475 feet from the West line of said Section 9.

(5) The subject well in this matter was spudded on November 3, 1961 and was drilled to a total depth of 9894 feet where it tested dry in the Devonian formation and was subsequently plugged and abandoned.

(6) The applicant proposes to re-enter said well and drill out the existing cement plugs to a depth of approximately 7474 feet, kick-off at this point due east, build angle to 15 degrees and hold to a measured depth of approximately 8913 feet, at which point the angle will be allowed to drop and return to vertical to a measured depth of approximately 9450 feet, whereby the hole will be allowed to build angle back and drift to the west bottoming at a true vertical depth of approximately 9710 feet in the Devonian formation approximately 330 feet west of the well's surface location.

(7) Should said well be a producer, it is the intent of this application that all survey and penalty provisions in the original Order No. R-8917 be fully applicable with respect to this well.

(8) Santa Fe Exploration Company, the offset operator to the east of the non-standard unit, appeared at the hearing and objected to the existing method of assessing a penalty on production from this well and proposed that the top unit allowable for this well, regardless of its location within the proposed target area, be set at a flat rate of 80 barrels of oil per day.

(9) the existence of a fault, downthrown to the west, which traverses the W/2 of said Section 9 in a north-south direction, resulting in only a small portion of the extreme east side of the E/2 W/2 of said Section 9 being potentially productive, as described in Case No. 9617 and further in this matter, makes it necessary for the applicant to crowd the east line of the unit to adequately drain those reserves underlying the unit. By utilizing an existing wellbore to directionally drill into the subject reservoir, the cost of developing this acreage

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should be reduced; therefore approval of the subject application utilizing the penalty formula as outlined in said Order No. R-8917 and Finding Paragraph (3) above, will afford the applicant the opportunity to produce its just and equitable share of the oil in the affected pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk from drilling an excessive number of wells and will otherwise prevent waste and will serve to protect correlative rights in this situation.

(10) The applicant should be required to determine the subsurface location of the kick-off point in the wellbore prior to directional drilling and should subsequently be required to conduct a multi-shot directional survey during or upon completion of drilling operations from the kick-off point to total depth.

(11) The applicant should be required to notify the supervisor of the Artesia district office of the Division of the date and time said directional surveys are to be conducted so that they may be witnessed. The applicant should further be required to provide a copy of said directional surveys to the Santa Fe and Artesia offices of the Division upon completion.

(12) The penalty should however be based on that portion of the total completion interval closest to the eastern boundary of the unit rather than the bottomhole location as provided for in Order No. R-8917 and in Finding Paragraph No. (3), above.

(13) Upon the successful directional drilling and completion of the subject well, said Division Order No. R-8917 should be placed in abeyance.

(14) However, if in the event re-entry into the Honolulu Federal Well No. 1 is unsuccessful, said Division Order No. R-8917 should remain in full force and effect and any other order resulting in the immediate case should become void and of no further effect.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Stevens Operating Corporation, is hereby authorized to re-enter the plugged and abandoned Philtex Oil Company Honolulu Federal Well No. 1 located 1980 feet from the South and West lines (Unit K) of Section 9, Township 14 South, Range 29 East, NMPM, Chaves County, New Mexico, and directionally drill, in the manner described in Finding Paragraph No. (6) of this order, so as to penetrate the North King Camp-Devonian Pool within 500 feet west of an unorthodox oil well location 1980 feet from the South line and 2475 feet from the West line of said Section 9.

PROVIDED HOWEVER THAT, prior to commencing directional drilling operations into said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

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PROVIDED FURTHER THAT, during or upon completion of directional drilling operations, the applicant shall conduct a multi-shot directional survey from the kick-off point to total depth in order that the subsurface bottomhole location may be determined.

(2) The applicant shall notify the supervisor of the Artesia district office of the Division of the date and time said directional surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said directional surveys to the Santa Fe and Artesia offices of the Division upon completion.

(3) the E/2 W/2 of Section 9 shall be dedicated to the above-described well forming a previously authorized (R-8917) 160-acre non-standard oil spacing and proration unit for said pool.

(4) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(5) The depth bracket allowable for the well shall be penalized by using the following formula, based on that portion of the total completion interval which is closest to the eastern boundary of the unit.

- a. a penalty (P_1) based on the proportion of distance the actual location is moved toward the boundary from the standard location;
- b. a penalty (P_2) based on the proportion of distance the actual location is moved toward the nearest well from the minimum distance under the pool rules; and
- c. the product of $(1-P_1) \times (1-P_2)$.

(6) Upon the successful directional drilling and completion of the subject well, Division Order No. R-8917, issued in Case No. 9617 and dated April 19, 1989, shall be placed in abeyance until further notice.

IT IS FURTHER ORDERED, HOWEVER, THAT:


(7) If in the event re-entry into the Honolulu Federal Well No. 1 is unsuccessful, said Division Order No. R-8917 shall remain in full force and effect and, at that time, the order in the immediate case (R-8917-A) shall become void and of no further effect.

(8) Jurisdiction of this cause is 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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