

**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. 12623
ORDER NO. R-11591**

**APPLICATION OF RAPTOR RESOURCES, INC. FOR TWO UNORTHODOX INFILL GAS
WELL LOCATIONS AND SIMULTANEOUS DEDICATION, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 19, 2001 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 31st day of May, 2001, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.
- (2) At the hearing Division Cases No. 12623, 12624, and 12625 were consolidated for the purpose of testimony.
- (3) The applicant, Raptor Resources, Inc. ("Raptor"), seeks an exception to the well location and well density provisions currently governing the Jalmat (Tansill-Yates-Seven Rivers) Gas Pool for its proposed: (i) State "A" A/C-1 Well No. 130 (**API No. 30-025-35552**) to be located at an unorthodox infill gas well location 660 feet from the South and East lines (Unit P) of Section 9, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico; and (ii) State "A" A/C-1 Well No. 131 (**API No. 30-025-35556**) to be located at an unorthodox infill gas well location 1980 feet from the South line and 660 feet from the East line (Unit I) of Section 9.
- (4) By Division Order No. R-9073, issued in Case No. 9775 and dated December 14, 1989, as amended by Division Order No. R-9073-B [Paragraph No. (8) of Exhibit "A"], a non-standard 520-acre gas spacing and proration unit ("GPU") for the Jalmat Gas Pool

comprising the S/2 NE/4, N/2 SE/4 and SE/4 SE/4 of Section 9 and the W/2 of Section 10, both in Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, was established for the Jalmat Gas Pool. This order further provided for the following two wells to be dedicated to this 520-acre GPU:

(i) State "A" A/C-1 Well No. 37 (**API No. 30-025-09290**), located at a standard gas well location 1650 feet from the North and West lines (Unit F) of Section 10; and

(ii) State "A" A/C-1 Well No. 38 (**API No. 30-025-09291**), located at a standard gas well location 990 feet from the South and West lines (Unit M) of Section 10.

(5) Subsequent to the issuance of Orders No. R-9073 and R-9073-B the Division authorized development within this 520-acre GPU in the following manner:

(i) by Division Administrative Order NSL-2727, dated December 7, 1989, as amended by order dated July 22, 1991, another well for this GPU, the State "A" A/C-1 Well No. 88 (**API No. 30-025-09297**), located at an unorthodox gas well location 1980 feet from the South and West lines (Unit K) of Section 10, was approved;

(ii) by Division Administrative Order NSL-2729, dated December 7, 1989, as amended by order dated July 22, 1991, another well for this GPU, the State "A" A/C-1 Well No. 49 (**API No. 30-025-09292**), located at an unorthodox gas well location 660 feet from the North and West lines (Unit D) of Section 10, was also approved;

(iii) by Division Administrative Order NSL-2731, dated December 7, 1989, as amended by order dated July 22, 1991, another well for this GPU, the State "A" A/C-1 Well No. 89 (**API No. 30-025-09298**), located at an unorthodox gas well location 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 10, was also approved;

(iv) in August, 1990 an additional well was completed in this GPU, the State "A" A/C-1 Well No. 55 (**API No. 30-025-09293**), located 1980 feet from the North line and 660 feet from the West line (Unit E) of Section 10; and finally

(v) by Division Administrative Order NSL-4371, dated October 25, 1999, the State "A" A/C-1 Well No. 81 (**API No. 30-025-09295**), located at an unorthodox gas well location 660 feet from the North line and 1980 feet from the West line (Unit C) of Section 9, was approved.

(6) The rules and procedures currently governing the Jalmat Gas Pool include but are not necessarily limited to:

(i) the "*Special Rules and Regulations for the Jalmat Gas Pool*," as promulgated by Division Order No. R-8170, as amended;

(ii) Division Rule 605.B;

(iii) Division Rule 104.F, revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999;

(iv) Rule 1207.A (2); and

(v) the Stipulated Declaratory Judgement of the First Judicial District Court in Santa Fe County, New Mexico issued on December 15, 2000 in Hartman vs. Oil Conservation Division, Cause No. D-0101-CV-9902927 ("Stipulated Declaratory Judgement").

(7) In its application Raptor indicated that the following three wells are currently dedicated to this 520-acre GPU:

(i) Clayton W. Williams, Jr., Inc. State "A" A/C-1 Well No. 56 (**API No. 30-025-09294**), located at a standard gas well location 1980 feet from the South line and 660 feet from the West line (Unit L) of Section 10;

(ii) Raptor's State "A" A/C-1 Well No. 86 (**API No. 30-025-09296**) located at an unorthodox gas well location 1980 feet from the North and West lines (Unit F) of Section 10; and

(iii) Clayton W. Williams, Jr., Inc. State "A" A/C-1 Well No. 100 (**API No. 30-025-09279**), located at an unorthodox

gas well location 1980 feet from the North line and 990 feet from the East line (Unit H) of Section 9.

(8) The State "A" A/C-1 Wells No. 56 and 100 were plugged and abandoned in September, 1992 by Clayton W. Williams, Jr., Inc. The State "A" A/C-1 Well No. 86 has been listed as "temporarily abandoned" in the Langlie-Mattix Pool since 1988, has never been the subject of any previous order by the Division authorizing its non-standard location, and was not included in this application. These three wells should therefore be omitted from this GPU.

(9) Raptor acquired interests in the Jalmat Gas Pool within Townships 22 and 23 South, Range 36 East, NMPM, Lea County, New Mexico in 1998 and embarked on a redevelopment program which included the drilling of 14 wells during calendar years 1999 and 2000. The results of this program demonstrate the existence of substantial recoverable reserves in the Jalmat Gas Pool that cannot be recovered by the existing wells in this pool.

(10) The Stipulated Declaratory Judgment provides in part that:

(i) the approval of drilling an additional well or wells on a spacing unit ("infill drilling") in the Eumont and Jalmat Gas Pools shall be administered in a manner that affords due process to affected parties, including notice, an opportunity to object and in the case of objection a right to public hearing in accordance with Division Rule 104; and

(ii) in accordance with those principles it is provided that in the event an operator files an application with the Division for approval of an additional well or wells in the Eumont Gas Pool or the Jalmat Gas Pool, which if allowed would result in spacing of less than 160 acres per well on a proration unit, the infill well or wells may be permitted only after notice pursuant to Division Rule 1207A (2) and opportunity for hearing for affected persons.

(11) Raptor presented evidence showing that it notified all affected persons of this application in accordance with Division Rules 104 and 1207.A (2) by providing a copy of this application by certified mail to all offsetting Division-designated operators and working interest owners in adjoining spacing units. Further, Raptor testified that in all offsetting spacing units it operates, the working interest ownership is identical to the ownership in the subject spacing and proration unit, except for Hal J. Rasmussen Operating Inc., owner of working interest in Section 17, Township 23 South, Range 36 East, NMPM, New Mexico,

and that all working interest owners have been notified of this application.

(12) It appears that Raptor has provided notice of the application in this case in accordance with the provisions of the Stipulated Declaratory Judgment and Division Rules 104 and 1207.A (2).

(13) No affected party or offsetting operator and/or interest owner appeared at the hearing in opposition to this application.

(14) The Stipulated Declaratory Judgment also provides that an application for approval of an additional well or wells in the Jalmat Gas Pool, which if allowed would result in spacing of less than 160 acres per well "...must be supported by evidence that the additional well or wells are necessary to efficiently and economically drain the proration unit, will prevent waste and protect correlative rights."

(15) Raptor presented geological evidence that shows:

(i) there is substantial geologic discontinuity in the Jalmat Gas Pool underlying the E/2 SE/4 of Section 9 on which these proposed infill wells (State "A" A/C-1 Wells No. 130 and 131) are to be drilled;

(ii) development of the Jalmat Gas Pool within this non-standard 520-acre GPU with only one well per 160-acre tract, more or less (NW/4 and SW/4 of Section 10 and remaining area in Section 9), would miss sands containing producible reserves and leave reserves in the ground, thereby causing waste; and

(iii) development of the Jalmat Gas Pool on less than one well per 160-acre tract is needed to assure that as many producible sands as reasonably possible are intersected by a wellbore.

(16) The engineering evidence presented by Raptor showed that substantial reserves have not been recovered by existing wells within its property due to inadequate completion practices in older wells, including inadequate treatment of perforated intervals and incomplete perforating of productive intervals, which has resulted in many of the productive intervals in the Yates and Seven Rivers formations, as well as other productive zones throughout the pool, being by-passed and not produced.

(17) Without this redevelopment, the properties in the Raptor 1999 and 2000 program would have produced approximately 3.1 million cubic feet of gas per day. However, as a result of the Raptor redevelopment program, these properties now produce at more than twice that rate.

(18) Raptor's engineering evidence also included information on the wells located on all 40-acre tracts offsetting the State "A" A/C-1 Wells No. 130 and 131. Although one well produced substantial oil and gas from a 40-acre tract offsetting the State "A" A/C-1 Well No. 130, the geologic evidence on the area shows that the Yates and Seven River formations are very heterogeneous in this area and a well in the NE/4 SE/4 of Section 9 is needed to produce the remaining recoverable reserves under this acreage. These data also show there is only one producing well offsetting the State "A" A/C-1 Well No. 131 and that it produces at marginal rates and cannot drain the SE/4 SE/4 of Section 9.

(19) The drilling of the Raptor Resources, Inc. State "A" A/C-1 Wells No. 130 and 131 will enable applicant to recover reserves that otherwise will not be recovered.

(20) Raptor also testified that due to the heterogeneous nature of the Yates and Seven Rivers formations and the limited offsetting production, the proposed State "A" A/C-1 Wells No. 130 and 131 are needed to efficiently drain remaining reserves from this proration unit.

(21) The proposed State "A" A/C-1 Wells No. 130 and 131 are necessary to efficiently drain remaining recoverable reserves from this proration unit.

(22) Raptor presented economic information on its overall Jalmat gas redevelopment program, which shows that it will obtain an acceptable economic return from new infill Jalmat wells it drills within its property holdings.

(23) The proposed State "A" A/C-1 Wells No. 130 and 131 will economically drain recoverable reserves from this 520-acre GPU.

(24) Raptor has met the conditions of the Stipulated Declaratory Judgment for this application, which will result in effective spacing of less than 160 acres per well.

(25) Raptor testified that to be able to selectively perforate individual zones within the Jalmat Gas Pool that have not previously been produced to depletion, it needs to drill new wells instead of attempting recompletions of old existing wellbores.

(26) The Special Pool Rules and Regulations for the Jalmat Gas Pool provide for wells on 520-acre spacing and proration units to be located no closer than 990 feet to the outer boundary of the spacing unit (*Special Rule 4(b)2, Order No. R-8170*). Accordingly, the State "A" A/C-1 Wells No. 130 and 131 are closer to the outer boundary of the acreage dedicated thereto than permitted by the Jalmat special pool rules.

(27) Raptor testified that to intersect portions of the reservoir not previously drained, well locations must be determined based upon the geologic and reservoir characteristics at the proposed location and an engineering evaluation of the prior completions and past and current production from offset wells.

(28) The geological and engineering data presented in support of the well location for the State "A" A/C-1 Wells No. 130 and 131 demonstrate that the proposed unorthodox well locations are necessary to enable the applicant to recover remaining reserves under this spacing and proration unit thereby preventing waste.

(29) The proposed unorthodox gas well location for the State "A" A/C-1 Wells No. 130 and 131 will serve to protect correlative rights and prevent waste and should therefore be approved.

(30) To efficiently produce the remaining recoverable reserves from the Jalmat Gas Pool under this 520-acre nonstandard spacing and proration unit, all Jalmat gas production from the State "A" A/C-1 Wells No. 37, 38, 49, 55, 81, 88, 89, 130, and 131 should be simultaneously dedicated to this GPU.

(31) That portion of this application for the simultaneous dedication of the State "A" A/C-1 Wells No. 37, 38, 49, 55, 81, 88, 89, 130, and 131 (less the State "A" A/C-1 Wells No. 56, 86, and 100) to the subject 520-acre non-standard gas spacing and proration unit should therefore be approved.

(32) Approval of this application and the drilling of the Raptor Resources, Inc. State "A" A/C-1 Wells No. 130 and 131 will result in the recovery of hydrocarbons that will otherwise not be recovered thereby preventing waste and will otherwise be in the best interest of conservation and protection of correlative rights.

(33) The drilling of Raptor's State "A" A/C-1 Wells No. 130 and 131 at the proposed unorthodox infill gas well locations in Section 9, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico is necessary to efficiently and economically drain the existing 520-acre GPU comprised of the S/2 NE/4, N/2 SE/4 and SE/4 SE/4 of Section 9

and the W/2 of Section 10, both in Township 23 South, Range 36 East, NMPM, Lea County, New Mexico and should therefore be approved.

IT IS THEREFORE ORDERED THAT:

(1) The application of Raptor Resources, Inc. ("Raptor") for an exception to the well location requirements of the Special Pool Rules and Regulations for the Jalmat Gas Pool, as promulgated by Division Order No. R-8170, as amended, for the following two wells to be drilled at unorthodox infill well locations within an existing non-standard 520-acre spacing and proration unit in the Jalmat Gas Pool comprising the S/2 NE/4, N/2 SE/4 and SE/4 SE/4 of Section 9 and the W/2 of Section 10, both in Township 23 South, Range 36 East, NMPM, Lea County, New Mexico (approved by Division Order No. R-9073, issued in Case No. 9775 and dated December 14, 1989, as amended by Division Order No. R-9073-B [Paragraph No. (8) of Exhibit "A"]), is hereby granted:

- (i) State "A" A/C-1 Well No. 130 (**API No. 30-025-35552**) to be located 660 feet from the South and East lines (Unit P) of Section 9; and
- (ii) State "A" A/C-1 Well No. 131 (**API No. 30-025-35556**) to be located 1980 feet from the South line and 660 feet from the East line (Unit I) of Section 9.

IT IS FURTHER ORDERED THAT:

(2) Applicant, pursuant to the rules governing the Jalmat Gas Pool and the Stipulated Declaratory Judgment, is further authorized to simultaneously dedicate this 520-acre non-standard unit in the Jalmat Gas Pool to the above described State "A" A/C-1 Wells No. 130 and 131 and the following described wells:

- (i) State "A" A/C-1 Well No. 37 (**API No. 30-025-09290**), located at a standard gas well location 1650 feet from the North and West lines (Unit F) of Section 10;
- (ii) State "A" A/C-1 Well No. 38 (**API No. 30-025-09291**), located at a standard gas well location 990 feet from the South and West lines (Unit M) of Section 10;
- (iii) State "A" A/C-1 Well No. 49 (**API No. 30-025-09292**), located at an unorthodox gas well location (approved by Division Administrative Order NSL-2729, dated December 7,

1989, as amended by order dated July 22, 1991) 660 feet from the North and West lines (Unit D) of Section 10;

(iv) State "A" A/C-1 Well No. 55 (**API No. 30-025-09293**), located 1980 feet from the North line and 660 feet from the West line (Unit E) of Section 10;

(v) State "A" A/C-1 Well No. 81 (**API No. 30-025-09295**), located at an unorthodox gas well location (approved by Division Administrative Order NSL-4371, dated October 25, 1999) 660 feet from the North line and 1980 feet from the West line (Unit C) of Section 9;

(vi) State "A" A/C-1 Well No. 88 (**API No. 30-025-09297**), located at an unorthodox gas well location (approved by Division Administrative Order NSL-2727, dated December 7, 1989, as amended by order dated July 22, 1991) 1980 feet from the South and West lines (Unit K) of Section 10; and

(vii) State "A" A/C-1 Well No. 89 (**API No. 30-025-09298**), located at an unorthodox gas well location (approved by Division Administrative Order NSL-2731, dated December 7, 1989, as amended by order dated July 22, 1991) 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 10.

(3) Raptor is hereby permitted to produce the allowable assigned the subject 520-acre GPU from all nine of these wells in any proportion.

(4) All provisions applicable to the subject 520-acre GPU in Division Orders No. R-9073 and R9073-B and Division Administrative Orders NSL-2727, NSL-2729, NSL-2731, and NSL-4371, not in conflict with this order, shall remain in full force and affect until further notice.

(5) Jurisdiction of this case is 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

LORI WROTENBERY
Director

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