

**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. 12795
ORDER NO. R-11791**

**APPLICATION OF CHAPARRAL ENERGY, INC. FOR AN UNORTHODOX
GAS WELL LOCATION, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 7, 2002, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 24th day of June, 2002, 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) The applicant, Chaparral Energy, Inc. ("Chaparral"), seeks approval for an unorthodox gas well location for its existing Crosby Deep Well No. 1 (API No. 30-025-23891) located 330 feet from the South line and 1980 feet from the West line (Unit N) of Section 28, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, which is to be recompleted in the Devonian formation, Crosby-Devonian Gas Pool.

(3) The SW/4 of Section 28 is to be dedicated to the well forming a standard 160-acre spacing and proration unit for the Crosby-Devonian Gas Pool.

(4) This application was originally filed by Chaparral for administrative approval on December 10, 2001. By letter to the Division dated December 26, 2001, Pride Energy Company objected to the application. Additionally, by letter to the Division dated December 27, 2001, Kaiser-Francis Oil Company objected to the application. Chaparral's application was subsequently set for hearing before a Division examiner.

(5) Prior to the hearing, and by letter dated January 21, 2002, Kaiser-Francis Oil Company withdrew its objection to Chaparral's application.

(6) Pride Energy Company ("Pride") appeared at the hearing through legal counsel to object to the application.

(7) The Crosby Deep Well No. 1 is currently completed in the Crosby-Fusselman Pool. Chaparral proposes to abandon the Fusselman interval and recomplete the well into the Crosby-Devonian Gas Pool, which is currently a prorated gas pool governed by the *General Rules for the Prorated Gas Pools of New Mexico/Special Rules and Regulations for the Crosby-Devonian Gas Pool*, as contained within Division Order No. R-8170, as amended, which require standard 160-acre gas spacing and proration units with wells to be located no closer than 660 feet to the outer boundary of the proration unit nor closer than 330 feet to any governmental quarter-quarter section line or subdivision inner boundary.

(8) Chaparral testified that they currently operate the affected offset acreage, being the NW/4 of Section 33, Township 25 South, Range 37 East, NMPM.

(9) Chaparral presented evidence that demonstrates that:

- (a) the NE/4 of Section 33 is currently dedicated in the Crosby-Devonian Gas Pool to the actively producing BC & D Operating, Inc. G. W. Shahan Well No. 2 (API No. 30-025-11873) located 990 feet from the North line and 1650 feet from the East line (Unit B). This well has cumulatively produced 17.8 BCF of gas from this Devonian reservoir;
- (b) the NW/4 of Section 33 was previously produced from the Crosby-Devonian Gas Pool by the El Paso Natural Gas Company Gregory Federal Well No. 2Y located 760 feet from the North line and 1650 feet from the West line (Unit C). This well was drilled in 1956 and was plugged and abandoned in 1976. This well cumulatively produced approximately 12.3 BCF of gas from this reservoir prior to being plugged;
- (c) the SW/4 of Section 28 was previously produced from the Crosby-Devonian Gas Pool by the Atlantic

Richfield Company ARC Federal Well No. 1 located 1980 feet from the South line and 1980 feet from the West line (Unit K). This well was drilled in 1955 and was plugged and abandoned in 1977. This well cumulatively produced approximately 12.0 BCF of gas from this reservoir prior to being plugged;

- (d) the Crosby-Fusselman Pool, a 320-acre oil pool, is currently being produced within a Section 33 north-half spacing unit by Chaparral's Crosby Deep Wells No. 2 and 4 located respectively in Units G and C; and
- (e) Pride does not operate any wells in this area; however, it owns a 9.375% working interest within the NW/4 of Section 33.

(10) Chaparral presented geologic evidence that demonstrates that:

- (a) this Devonian reservoir is characterized by a structural high located within the NE/4 NW/4 of Section 33, and the SE/4 SW/4 of Section 28. The Crosby Deep Well No. 1 is located structurally higher in the reservoir than the ARC Federal Well No. 1 and the G. W. Shahan Well No. 2, but is located structurally lower than the Gregory Federal Well No. 2Y;
- (b) water encroachment in this reservoir appears to be the reason that the Gregory Federal Well No. 2Y was plugged and abandoned, and the reason that water production is increasing in the G. W. Shahan Well No. 2;
- (c) Chaparral proposes to perforate the interval from approximately 8,030 feet to 8,220 feet in the Crosby Deep Well No. 1. This perforated interval includes an upper Devonian zone located from 8,032 feet to 8,046 feet, hereinafter referred to as the "upper Devonian zone";

- (d) this potentially productive upper Devonian zone did produce in the ARC Federal Well No. 1 and in the G. W. Shahan Well No. 2, but was not produced in the Gregory Federal Well No. 2Y; and
- (e) from an examination of the well log for Chaparral's Crosby Deep Well No. 4 located in Unit C of Section 33, this upper Devonian zone appears to be "tight" and "shaly" and the reservoir quality does not appear to be as good as in the Crosby Deep Well No. 1.

(11) Chaparral presented engineering evidence that demonstrates that:

- (a) the G. W. Shahan Well No. 2 will ultimately drain an area of approximately 404 acres in this Devonian reservoir. The drainage area for this well extends onto the SW/4 of Section 28;
- (b) the Gregory Federal Well No. 2Y has drained an area of approximately 421 acres in this Devonian reservoir. The drainage area for this well extends onto the SW/4 of Section 28; and
- (c) it is estimated that the proposed recompletion of the Crosby Deep Well No. 1 should result in the recovery of an additional 60-150 MMCF of gas from the Crosby-Devonian Gas Pool.

(12) Chaparral contends that no production penalty should be imposed on the Crosby Deep Well No. 1 for the following reasons:

- (a) approximately 30 BCF of gas has already been produced from the Crosby-Devonian Gas Pool within the N/2 of Section 33. Additionally, a portion of these gas reserves were likely drained from the SW/4 of Section 28;
- (b) it would be uneconomic to drill an additional well in the NW/4 of Section 33 to access any remaining gas reserves in the Crosby-Devonian Gas Pool; and

- (c) it is unknown whether the upper Devonian zone that is being targeted by the Crosby Deep Well No. 1 is productive within the NW/4 of Section 33.

(13) Pride recommended that a 50% production penalty be assessed against the Crosby Deep Well No. 1. This proposed penalty is based upon the well's deviation from a standard well location and its resulting encroachment towards the NW/4 of Section 33.

(14) Pride recommends this penalty based upon its assertion that there may be recoverable gas reserves in the upper Devonian zone within the NW/4 of Section 33, and that the Crosby Deep Well No. 1, if allowed to produce without a penalty, may drain these gas reserves.

(15) Pride presented no geologic evidence to support its contention that the upper Devonian zone can be produced by a well located within the NW/4 of Section 33.

(16) Pride presented no engineering evidence to support its assertion that its correlative rights will be violated if Chaparral is allowed to produce the Crosby Deep Well No. 1 unrestricted from the Crosby-Devonian Gas Pool.

(17) The evidence presented in this case demonstrates that approval of the application will afford Chaparral the opportunity to recover the remaining gas reserves in the Crosby-Devonian Gas Pool underlying the SW/4 of Section 28, thereby preventing waste.

(18) The geologic evidence presented shows that the upper Devonian zone within the NW/4 of Section 33 is likely non-productive.

(19) Substantial gas reserves have already been recovered from the NW/4 and NE/4 of Section 33 in the Crosby-Devonian Gas Pool.

(20) The evidence presented is not sufficient to demonstrate that the correlative rights of Pride will be adversely affected if Chaparral is allowed to produce the Crosby Deep Well No. 1 at an unrestricted rate.

(21) No production penalty should be imposed on Chaparral's Crosby Deep Well No. 1 in the Crosby-Devonian Gas Pool.

IT IS THEREFORE ORDERED THAT:

(1) The application of Chaparral Energy, Inc. for approval for an unorthodox gas well location for its existing Crosby Deep Well No. 1 (API No. 30-025-23891) located 330 feet from the South line and 1980 feet from the West line (Unit N) of Section 28, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, in the Crosby-Devonian Gas Pool is hereby approved.

(2) The well shall be allowed to produce unrestricted; provided however the well shall be produced in accordance with the applicable provisions set forth within Division Order No. R-8170, as amended.

(3) 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director