

**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. 13897  
ORDER NO. R-12840-A**

**APPLICATION OF CIMAREX ENERGY CO. OF  
COLORADO FOR POOL CREATION, A DISCOVERY  
ALLOWABLE, AND SPECIAL POOL RULES, EDDY  
COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing on April 12, 2007, at 8:15 a.m. at Santa Fe, New Mexico, before Examiner Richard Ezeanyim.

NOW, on this 20<sup>th</sup> day of December, 2007, 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 of the subject matter.

(2) Cimarex Energy Company of Colorado ("applicant") seeks an order (i) creating a new pool for production of oil from the Wolfcamp formation, to be named the Northeast Loco Hills-Wolfcamp Pool (97639), comprising the NE/4 of Section 26, Township 17 South, Range 29 East, NMPM, (ii) granting applicant a discovery allowable, and (iii) establishing special rules and regulations for the pool, including a limiting gas-oil ratio of 6000 cubic feet of gas per barrel of oil produced. Applicant further requests that the order be effective as of the date of first production from the discovery well.

(3) Subsequent to the hearing in this matter, but before an order was issued herein, Great Western Drilling, Ltd. and Davoil, Inc., working interest owners in the proposed pool, applied to re-open Case No. 13897. By letter from their counsel dated October 26, 2007, Great Western Drilling, Ltd. and Davoil, Inc. requested that their application to re-open Case No. 13897 be dismissed. That request was granted by

Division Order No. R-12840; hence, Order No. R-12840-A is now being issued in the original case.

(4) The discovery well for the pool is the Keely 26 Fed. Well No. 1 (API No. 30-015-35025), located 1980 feet from the North line and 1550 feet from the East line (Unit G) of Section 26. The well was originally drilled as a Morrow well, but was completed uphole in the Wolfcamp formation on December 13, 2006 with a top perforation in the Wolfcamp formation at 9,078 feet subsurface. The unorthodox location for the well in the Wolfcamp formation was approved by Division Administrative Order NSL-5578.

(5) Prior to the issuance of this order, the Northeast Loco Hills-Wolfcamp Pool was created by Division (Nomenclature) Order No. R-12831, dated October 22, 2007. The horizontal limits of the pool encompass the NE/4 of Section 26, Township 17 South, Range 29 East, NMPM.

(6) There are no operators of Wolfcamp wells within a mile of the Keely 26 Fed. Well No. 1 other than applicant. Thus, under Division Rule NMAC 19.15.13.1210.A(4)(b), applicant was not required to notify anyone.

(7) Applicant presented geologic and engineering evidence which demonstrates that:

(a) The Wolfcamp structure in this area dips slightly to the southeast.

(b) The only Wolfcamp well within several miles of the Keely 26 Fed. Well No. 1 is the Jackson Fed. Well No. 1, located in Unit C of Section 35, Township 17 South, Range 29 East, NMPM. That well, completed on December 1, 1984, produced 60,327 MCF of gas and 31,497 barrels of oil.

(c) A pool was never established by the Division for the Jackson Fed. Well No. 1. Production from the well was reported as being from the Cisco/Canyon formation.

(d) The productive Wolfcamp zone in the Keely 26 Fed. Well No. 1 is up-section from the Jackson Fed. Well No. 1, indicating that the wells are in separate reservoirs.

(e) After initial high rates of production, production from the Jackson Fed. Well No. 1 declined rapidly, ceasing in January 1986. The Keely 26 Fed. Well No. 1 initially produced approximately 200 BOPD and 1100 MCFPD, with a relatively flat decline rate. This also indicates the Keely 26 Fed. Well No. 1 and the Jackson Fed. Well No. 1 are in separate reservoirs.

(f) A PVT analysis shows that the oil gravity in the Keely 26 Fed. Well No. 1 is 66° API, substantially higher than the 45° API found in the Jackson Fed. Well No. 1. In addition, the initial GOR of 5728 in the Keely 26 Fed. Well No. 1 is significantly higher than the initial GOR of 1260 in the Jackson Fed. Well No. 1. Finally, virgin pressures of 3895 psi were found in the Keely 26 Fed. Well No. 1. These factors also indicate the Keely 26 Fed. Well No. 1 and the Jackson Fed. Well No. 1 are in separate reservoirs.

(g) If production from the Keely 26 Fed. Well No. 1 is choked back, the well will die.

(8) The geologic and engineering evidence presented by applicant demonstrates that the Keely 26 Fed. Well No. 1 is a *bona fide* discovery well in a new common source of supply, and as such is entitled to a discovery allowable as provided in Division Rule NMAC 19.15.13.509.

(9) The geologic and engineering evidence presented by applicant further demonstrates that a limiting gas-oil ratio (GOR) in the Northeast Loco Hills-Wolfcamp Pool of 6000 cubic feet of gas per barrel of oil produced, with an effective date of first production from the discovery well, will not harm the reservoir and will prevent waste.

(10) Approval of the subject application will afford applicant and other future operators the opportunity to recover their just and equitable shares of oil and gas reserves from the Northeast Loco Hills-Wolfcamp Pool, thereby preventing waste, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) Pursuant to the application of Cimarex Energy Co. of Colorado, the following "*Special Rules and Regulations for the Northeast Loco Hills-Wolfcamp Pool*" are hereby promulgated as follows:

**Rule 1:** Each well completed or recompleted in the Northeast Loco Hills-Wolfcamp Pool, or within one mile thereof and not nearer to or within the limits of another Wolfcamp pool, shall be drilled, operated, and produced in accordance with the Special Rules hereinafter set forth.

**Rule 2:** The limiting gas-oil ratio for any well within the pool shall be 6000 cubic feet of gas per barrel of oil.

**Rule 3:** All other rules shall conform to the Division's statewide rules.

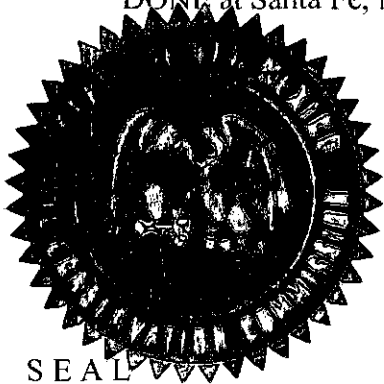
(2) The *Special Rules and Regulations for the Northeast Loco Hills-Wolfcamp Pool* shall be effective as of the date of first production from the Wolfcamp formation in the Keely 26 Fed. Well No. 1.

(3) The Keely 26 Fed. Well No. 1 is hereby granted a discovery allowable of  $9,078 \times 5 = 45,390$  barrels of oil, producible in accordance with Division Rule NMAC 19.15.13.509. F.

(4) That portion of the application requesting creation of a new pool for production of oil from the Wolfcamp formation is dismissed.


(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.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
MARK E. FESMIRE, P.E.  
Director