THE APPLICATION OF SOUTHWESTERN ENERGY PROD. CO. TO AMEND THE FIELD RULES FOR THE ANGIE (JAMES LIME) FIELD, SHELBY COUNTY, TEXAS

Heard by: Donna K. Chandler on December 11, 2008

Appearances: Representing:

Davin McGinnis Joe Kneedler Kris Dunckel Southwestern Energy Prod. Co.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field rules for the Angie (James Lime) Field were adopted in Order No. 06-0256743, effective June 24, 2008 and amended by Order No. 06-0257847, effective August 25, 2008. The rules in effect for the field are summarized as follows:

- 1. Designation of the field as the correlative interval from 7,038 feet to 7,255 feet as shown on the log of the Sustainable Forest, LLC Well No. 1;
- 2. 330'-660' well spacing, with no minimum distance requirement between horizontal and vertical wells;
- 3. 40 acre drilling units;
- 4. Allocation based on 100% deliverability, with AOF status.

Southwestern Energy Prod. Co. requests that the rules be amended to include a special provision that distances for horizontal wells be based on the closest "take point" in a horizontal well. Southwestern also requests additional language allowing off-lease penetration points in the field.

The examiner recommends that the field rules for the Angie (James Lime) Field be amended as proposed by Southwestern.

DISCUSSION OF EVIDENCE

The Angie (James Lime) Field was discovered in 1981. The field is a non-associated gas field with 30 producing wells on the current proration schedule. Cumulative production from the field is 12.7 BCF of gas. Field production has increased from about 10 MMCF per month in 2006 to about 1,000 MMCF in late 2008. The well count increased from only 4 wells in 2007.

Operators are currently developing the field with horizontal wellbores. Southwestern requests that a field rule be adopted which includes language relevant to measurement of distances to lease lines for horizontal drainhole wells. Southwestern's proposed rule specifies that, for purposes of lease line and between-well spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. Similar rules have been adopted in numerous other tight reservoirs, including Barnett Shale and Cotton Valley fields.

The proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 330 feet to a lease line, as long as no take-point is closer than 330 feet to any lease line. Horizontal drainhole length on a lease is then maximized, resulting in additional recovery of gas.

Southwestern is also requesting that the field rules be amended to provide for offsite penetration points. Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In some cases, it is beneficial to penetrate the reservoir off lease, while still having "take points" no closer than allowed under the field rules. In this field, it generally requires about 817 feet of horizontal displacement to make the 90 degree turn from the penetration point until the well is horizontal. If the penetration point is required to be 330 feet from lease lines, then the first point of production is over 1,100 feet from the lease line. The proposed rules will allow a larger length of producing drainhole, resulting in the recovery of additional reserves estimated to be over 300 MMCF per well. The proposed field rules would allow offsite penetration points, after notice to the mineral owners of the offsite tract on which the penetration point is located and if no protest is received.

For purposes of assignment of additional acreage pursuant to Rule 86, it is proposed that the distance between the first and last take-point in a horizontal well be used.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.

- 2. The Angie (James Lime) Field was discovered in 1981. The field is a non-associated gas field with 30 producing wells and is actively being developed with horizontal drainhole wells.
- 3. Field rules for the Angie (James Lime) Field provide for a designated interval, 330'-660' well spacing and 40 acre drilling units.
- 4. A spacing rule which utilizes "take-points" in a horizontal well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
 - a. The James Lime is classified as a tight formation and is not commercially productive unless fracture-stimulated.
 - b. A take-point in a horizontal well in this field may be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
 - c. Adoption of the proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 330 feet to a lease line, as long as no take-point is closer than 330 feet to any lease line.
 - d. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
- 5. Allowing offsite penetration points, after notice to mineral owners of the offsite tract, will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells.
- 6. For purposes of assignment of additional acreage pursuant to Rule 86, the distance between the first and last take-point in a horizontal well should be used.

CONCLUSIONS OF LAW

- 1. Proper notice of this hearing was issued.
- 2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
- 3. Amending the field rules for the Angie (James Lime) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends that the Commission amend the field rules for the Angie (James Lime) Field as proposed by Southwestern Energy Prod. Co.

Respectfully submitted,

Donna K. Chandler Technical Examiner