

**THE APPLICATION OF SAMSON LONE STAR, LLC TO AMEND FIELD RULE FOR THE CARTHAGE (COTTON VALLEY) FIELD, HARRISON, PANOLA AND SHELBY COUNTIES, TEXAS**

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**HEARD BY:** Donna K. Chandler on January 12, 2011

**APPEARANCES:**

James M. Clark

**REPRESENTING:**

Samson Lone Star, LLC

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field Rules for the Carthage (Cotton Valley) Field were originally adopted in Final Order No. 6-67,311, effective June 27, 1977. The rules in effect for the field are summarized as follows:

1. Designation of the field as the correlative interval from 7,940 feet to 9,630 feet as shown on the log of the W. R. Banks Well No. 3;
2. 330 lease line spacing, with no minimum between well spacing requirement;
3. 320 acre gas units with optional 20 acre density;
4. Allocation based on 100% acreage with AOF status.

Samson Lone Star, LLC requests that Rule No. 2 be amended to provide for take points, off lease penetration points and a "box rule" for horizontal drainhole wells. Samson also requests that Rule No. 5 be adopted to provide for stacked laterals for horizontal drainhole wells.

The application was unopposed and the examiner recommends that Field Rule No. 2 be amended and Field Rule No. 5 be adopted for the Carthage (Cotton Valley) Field, as proposed by Samson.

**DISCUSSION OF EVIDENCE**

The Carthage (Cotton Valley) Field was discovered in 1968 and there are approximately 3,200 gas wells on the current proration schedule. Cumulative production from the field is over 4.3 TCF of gas and 31 million BO. Current production is 14-15 BCF per month.

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Samson has drilled approximately 60 horizontal wells in the field and expects to drill many more. Samson proposes special provisions for take points, off-lease penetration point and a “box rule” for horizontal drainhole wells. Samson requests that the field rules include language relevant to measurement of distances to lease lines for horizontal drainhole wells. Samson’s proposed rule specifies that, for purposes of lease line spacing, the nearest “take point” in a horizontal well be used. A 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. The proposed “box rule” for horizontal drainhole wells would allow drainholes to deviate 50 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As-drilled wells for which all points are located within the “box” would be considered in compliance with their drilling permits. Samson also requests that a rule be adopted to accommodate the drilling of stacked horizontal lateral wells. The gross thickness of the Cotton Valley interval is approximately 2,000 feet. Samson believes that several separate laterals may be necessary to effectively develop the reservoir with horizontal wells. The rule would allow stacked horizontal laterals within the Cotton Valley correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes.

Similar horizontal drainhole well rules have already been adopted in the deeper Carthage (Haynesville Shale) Field and six other Cotton Valley Fields in the area.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Carthage (Cotton Valley) Field was discovered in 1968 and there are approximately 3,200 gas wells producing from the field.
3. Field rules for the Carthage (Cotton Valley) Field provide for a designated interval, 467'-0' well spacing and 320 acre gas units with optional 20 acre density.
4. The Carthage (Cotton Valley) Field is actively being developed with horizontal drainhole wells.
5. A rule that provide for take points, off-lease penetration points, a “box rule” and stacked laterals for horizontal wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
  - a. The proposed 50 foot “box rule” is necessary to allow operators reasonable minor deviations from the permitted wellbore track.

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- b. The proposed stacked lateral rule will allow stacked horizontal laterals within the Cotton Valley correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes, which will facilitate the recovery of additional reserves.
  - c. Off lease penetration points and take point provisions will provide for maximum wellbore length on a lease, thereby increasing ultimate recovery.
6. Similar horizontal drainhole well rules have already been adopted in the deeper Carthage (Haynesville Shale) Field and six other Cotton Valley Fields in the immediate area.

### **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 Carthage (Cotton Valley) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

### **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the field rules for the Carthage (Cotton Valley) Field be amended as proposed.

Respectfully submitted,

Donna K. Chandler  
Technical Examiner