

October 13 ,2000

**OIL AND GAS DOCKET NO. 06-0226235**

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**APPLICATION OF SAMSON LONE STAR L.L.P. TO CONSIDER PERMANENT FIELD RULES FOR THE HUXLEY (6100) FIELD, SHELBY COUNTY, TEXAS**

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**HEARD BY:** Thomas H. Richter, P.E.

**DATE OF HEARING:** October 13, 2000

**APPEARANCES:**

David Nelson, attorney  
Gaye White, attorney  
Kerry Pollard  
Richard G. Koenig

**REPRESENTING:**

Samson Lone Star L.L.P.  
  
Santa Fe Petroleum, LLC

**PROTESTANT:** none

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

This is the unprotested application of Samson Lone Star L.L.P. for the Commission to consider permanent field rules for the Huxley (6100) Field that provide for only a well spacing rule for horizontal drainhole wells. Statewide rules will continue to remain in force for other regulation requirements. The proposed rule is summarized as follows:

1. The penetration point and terminus of a horizontal drainhole well can be no closer than 100 feet to a lease line. The perpendicular distance from length of the horizontal drainhole well to a lease line can be no closer than 467 feet.
2. No between well restriction between an existing vertical well and a horizontal drainhole well.
3. A 100 feet overlap allowance between the penetration point of one horizontal drainhole well and the terminus of another horizontal well.

### **DISCUSSION OF THE EVIDENCE**

The Huxley (6100) Field was discovered in 1980 at approximately 6,100 feet subsurface depth. The field is classified as a non-associated gas field operating under Statewide Rules. The allocation formula was suspended in March 2000. It is proposed that the allocation formula remain suspended. There are two operators and eleven wells in the field of which seven wells are horizontal drainhole wells.

A horizontal drainhole well rule will provide for the efficient and effective depletion of the reservoir. The producing reservoir is the James Lime Formation, which is similar to the Austin Chalk Formation, is a naturally, vertically fractured formation with a definite fracture strike orientation. The natural vertical fractures form extensive networks of "fracture swarms" which are continuous over long distances. The purpose of a horizontal drainhole well is to encounter as many of these fracture swarms as possible. Hence, the horizontal drainholes are drilled as near perpendicular as possible to the fracture strike to encounter the fracture swarms.

The proposed 100 feet overlap of opposing horizontal drainholes is to insure that all the fractures that maybe present on a lease are encountered. The 100 feet from lease line at the horizontal drainhole penetration point and the terminus is also to insure that as many fractures as possible will be encountered under a lease. The 467 feet minimum lease line spacing requirement along the perpendicular length of the drainhole remains consistent with Statewide Rules for vertical wells.

Cumulative production from the field is 4.6 BCF of gas and 12,857 barrels of condensate.

### **FINDINGS OF FACT**

Based on the evidence presented, the examiner proposes the following findings:

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.
3. The Huxley (6100) Field was discovered in 1980 at approximately 6,100 feet subsurface depth.
  - a. The field is classified as a non-associated gas field operating under Statewide Rules.
  - b. The allocation formula was suspended in March 2000.

- c. There are two operators and eleven wells in the field of which seven wells are horizontal drainhole wells.
4. A horizontal drainhole well rule will provide for the efficient and effective depletion of the reservoir.
  - a. The producing reservoir, the James Lime Formation, is a naturally, vertically fractured with a definite fracture strike orientation. The purpose of a horizontal drainhole well is to encounter as many of these fractures as possible.
  - b. The proposed 100 feet overlap of opposing horizontal drainholes is to insure that all the fractures that may be present on a lease are encountered. The 100 feet from lease line at the horizontal drainhole penetration point and the terminus is also to insure that as many fractures as possible will be encountered under a lease.
5. No between well restriction between an existing vertical well and a horizontal drainhole well is warranted because of the limited drainage area of the vertical well.

#### **CONCLUSIONS OF LAW**

1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Consideration of field rules, a determination of their effectiveness and appropriate actions is a matter within the Commission jurisdiction.
4. Adoption of the proposed field rule will prevent waste, foster conservation and protect correlative rights.

#### **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed field rules for the Huxley (6100) Field.

Respectfully submitted,

Thomas H. Richter, P.E.  
Technical Examiner  
Office of General Counsel