

THE APPLICATION OF SAMSON LONE STAR, LLC, INC. TO AMEND FIELD RULES FOR THE BSR (SUB-CLARKSVILLE) FIELD, MADISON COUNTY, TEXAS

HEARD BY: Andres J. Trevino, P.E. - Technical Examiner
Terry Johnson - Hearings Examiner

HEARING DATE: May 2, 2012

APPEARANCES:

James M. Clark, P.E.
Randal L. Maxwell, P.E.
Julie Ewing
Ken Fox

REPRESENTING:

Samson Lone Star, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field rules for the BSR (Sub-Clarksville) Field were adopted in Final Order No. 03-0209741, effective October 3, 1995, and are summarized as follows:

1. Designation of the field as the correlative interval from 7,565' to 7,622' as shown on the log of the Barrow-Shaver Resources Co., Moore Well No. 1;
2. 467'-1,200' well spacing;
3. 160 acre units with a 4,500 foot maximum diagonal, 40 acre tolerance, with an 80 acre option and maximum diagonal of 3,250 feet;
4. Allocation based on 100% acreage.

Samson Lone Star requests that the rules for the field be amended as follows:

1. Designation of the field as the correlative interval from 7,565' to 7,788' as shown on the log of the Barrow-Shaver Resources Co., BSR (Subclarksville) Unit Well No. 1201;
2. 330'-660' well spacing, 0' between vertical and horizontal wells, special language for "take points" in horizontal wells, 100' first & last take point

distance, 33' box rule, and off-lease penetration points;

3. 160 acre units with a 4,500 foot maximum diagonal, 40 acre tolerance, with an 80 acre option and maximum diagonal of 3,250 feet, No Change;
4. Allocation based on 100% acreage, No Change.

The application was unopposed, and the examiners recommend that the field rules for the BSR (Sub-Clarksville) Field be amended as proposed by Samson Lone Star.

DISCUSSION OF EVIDENCE

The BSR (Sub-Clarksville) Field was discovered in December 1994 at a depth of 7,580 feet. The field currently has 31 vertical oil wells on the proration schedule. There are two other operators in the field. Samson has no wells on the proration schedule but has drilled two horizontal wells in the field. The field operates under Special Rules that allow 160/80 acre density and 467'/1,200' well spacing.

The BSR (Sub-Clarksville) Field is currently under going secondary recovery by waterflood and has been developed with vertical wells. The field has produced a cumulative production of 2.5 MMBO and is currently producing 85 BOPD from the entire field. Samson recently drilled two horizontal wells. The Blakeney No.1H, was completed in January 2012. The Blakeney No.1H had an initial potential of 198 BO and 545 MCF of gas per day and 4,326 BWPD with a flowing tubing pressure of 900 psi. The well has produced 5,250 BO and 11 MMCF and 131,500 barrels of water (frac fluid). The well is currently shut-in while it awaits gas pipeline connections. The Vogt No. 1H, was completed in March 2012. The Vogt No. 1H has not been tested and is currently shut-in waiting for gas pipeline connections.

Samson is amending the existing field rules in the BSR (Sub-Clarksville) Field to adopt horizontal rules to allow efficient and orderly development of the BSR (Sub-Clarksville) Field with horizontal wells. The proposed horizontal rules are similar to horizontal rules found in other horizontal play fields through out the State. Samson requests adoption of 330' lease line spacing, 660' between well spacing and 0' between well spacing between vertical and horizontal wells to be consistent with the spacing rules of other fields undergoing horizontal development. The 0' between well spacing will allow the drilling of horizontal wells in between the numerous existing vertical wells.

Samson also requests several other standard horizontal well provisions commonly adopted when horizontal well development is anticipated. The provisions include take point language to allow flexible drilling of the laterals and off-lease penetration to allow the additional recovery of reserves by allowing the lateral to be horizontal at a legal lease line location. An additional stage frac will be placed on each lateral if off lease penetration is

allowed. Samson requests special spacing for the first and last take points on a horizontal lateral to be as close as 100 feet perpendicular to the lease line. This will reduce a “shadow zone” created when the first and last take points on separate wells are 660 feet apart. The reduced shadow zone will be only 200 feet wide allowing the recovery of additional reserves within the 460 foot zone that would otherwise go unrecovered.

Samson requests that the field’s designated interval be expanded to include additional lower Sub-Clarksville sands that are being developed horizontally. Samson requests the designation of the field as the correlative interval from 7,565' to 7,788' as shown on the log of the Barrow-Shaver Resources Co., BSR (Subclarksville) Unit Well No. 1201. This interval includes the fourth Sub-Clarksville sand which is part of the original interval and adds the third and second Sub-Clarksville sands which Samson is developing using horizontal wells.

Samson proposes a 33 foot “box rule” for horizontal drainhole wells that would allow drainholes to deviate 33 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. Samson requests that the allocation formula for wells in the field remain based on 100% acres.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The BSR (Sub-Clarksville) Field was discovered in December 1994 at a depth of 7,580 feet. The field currently has 31 vertical oil wells on the proration schedule.
3. The BSR (Sub-Clarksville) Field is a oil field which operates under Special Rules that include a designated interval, 467'/1,200' well spacing 160 acre units with 80 acre optional units and 100% acreage allocation.
4. The BSR (Sub-Clarksville) Field is currently under going secondary recovery by waterflood and has been developed with vertical wells. The field has produced a cumulative production of 2.5 MMBO and is currently producing 85 BOPD from the entire field.
5. Samson recently drilled two horizontal wells, the Blakeney No.1H, was completed in January 2012 and the Vogt No. 1H, completed in March 2012. The Blakeney No.1H had an initial potential of 198 BO and 545 MCF of gas per day and 4,326 BWPD with a flowing tubing pressure of 900 psi. Both wells are currently shut-in while they await gas pipeline connections.

6. The entire correlative interval between 7,565' to 7,788' as shown on the log of the Barrow-Shaver Resources Co., BSR (Subclarksville) Unit Well No. 1201 should be designated as the BSR (Sub-Clarksville) Field. The interval includes the fourth Sub-Clarksville sand which is part of the original interval and adds the third and second Sub-Clarksville sands which Samson is developing using horizontal wells.
7. Field rules that provide for 330'/660' well spacing, elimination of between well spacing between vertical and horizontal wells in the field, 100' lease line spacing for first & last take points, take point language, off lease penetration, and a "box rule" for horizontal wells will provide consistency with other horizontal play fields in the State under going horizontal drilling.
8. Adopting field rules that provide for eliminating between well spacing will allow horizontal wells be drilled between existing vertical wells.
9. The proposed 33 foot "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
10. Allowing off-lease penetration will allow an additional stage frac to be placed on each lateral causing the recovery of additional reserves that would otherwise be left in the ground.
11. Allocation based on 100% acreage will remain unchanged is a reasonable method of allocation which will protect the correlative rights of mineral owners in the field.

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 BSR (Sub-Clarksville) 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 examiners recommend amendment of the field rules for the BSR (Sub-Clarksville) Field as proposed by Samson Lone Star, LLC.

Respectfully submitted,

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Technical Examiner

Terry Johnson
Hearings Examiner