

THE APPLICATION OF SAMSON LONE STAR, LLC TO AMEND FIELD RULES FOR THE CARTHAGE, SE (CV) FIELD, PANOLA COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner

HEARING DATE: April 6, 2009

APPEARANCES:

James M. Clark

REPRESENTING:

Samson Lone Star, LLC

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field Rules for the Carthage, SE (CV) Field were adopted in Final Order No. 6-73,109, issued effective October 1, 1979, as amended. The rules are summarized as follows:

1. Designation of the field as the correlative interval from 8,263 feet to 9,558 feet as shown on the log of the Werner Caraway No. 2;
2. 467'-933' well spacing;
3. 640 acre gas units with optional 40 acre density;
4. Allocation based on 100% acreage.

Samson Lone Star, LLC ("Samson") requests that the Field Rules be amended as follows:

2. 467'-933' well spacing with special provisions for "take points" in horizontal wells and no minimum spacing requirement between horizontal and vertical wells;
3. 640 acre gas units with optional 40 acre density and that the filing of P-15's and plats not be required, as long as the allocation formula is suspended;
5. Special provisions for horizontal "stacked lateral" wells.

This application was unopposed and the examiner recommends that the Field Rules for the Carthage, SE (CV) Field be amended, as proposed by Samson.

DISCUSSION OF EVIDENCE

The Carthage, SE (CV) Field was discovered in December 1975 at a depth of approximately 8,800 feet. The field is a non-associated gas field with 22 producing gas wells carried on the proration schedule. Samson operates all except six of the producing wells in the field. The allocation formula is currently suspended.

A total of 29 wells have produced from the field, with cumulative production through January 2009 of 27.7 BCFG and 0.5 MMBC. The highest current deliverability is 262 MCFGPD.

Operators are currently developing the field with horizontal wellbores. Samson requests that a field rule be adopted which includes language relevant to measurement of distances to lease lines and between-wells for horizontal drainhole wells. Samson'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 other tight reservoirs, including several Cotton Valley and Granite Wash fields, as well as the Newark, East (Barnett Shale) Field.

The proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 467 feet to a lease line, as long as no take-point is closer than 467 feet to any lease line. Horizontal drainhole length on a lease is then maximized, resulting in additional recovery of gas. 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.

Samson requests that field rules for the subject field provide for off-lease penetration points. Statewide 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 to lease lines than allowed under the field rules. In this field, it generally requires 500-600 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 on the lease, then the first point of production is about 600 feet from the lease line. The proposed rules will allow a longer length of producing drainhole, resulting in the recovery of additional reserves. Similar rules allowing offsite penetration points have been adopted in other fields, after notice to the mineral owners of the off-lease tract on which the penetration point is to be located and if no protest is received.

Samson also requests that spacing rules for the field be adopted to accommodate the drilling of stacked horizontal lateral wells. The gross thickness of the correlative interval is over 1,300 feet. Samson believes that several separate laterals may be necessary to

OIL AND GAS DOCKET NO. 06-0261254

effectively develop the reservoir with horizontal wells. Similar stacked lateral rules have already been adopted in several Cotton Valley and Granite Wash fields, as well as in the Newark, East (Barnett Shale) Field. The rule would allow stacked horizontal laterals within the correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes. It is proposed that a stacked lateral be defined to be multiple horizontal drainholes which are drilled (1) from different surface locations on the same lease unit no more than 250 feet from each other at the surface and (2) no more than 300 feet from each other in a horizontal plane within the correlative interval.

Samson requests that the allocation formula remain suspended, as there is a 100% market for all the gas produced. Samson also requests that the filing of P-15's and plats not be required, as long as the allocation formula is suspended.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Carthage, SE (CV) Field was discovered in December 1975 at a depth of approximately 8,800 feet. The field is a non-associated gas field with 22 producing gas wells carried on the proration schedule.
3. A spacing rule which utilizes "take-points" in a horizontal well for the determination of distances to lease lines and between wells will prevent waste and will not harm correlative rights.
 - a. The correlative interval 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 467 feet to a lease line, as long as no take-point is closer than 467 feet to any lease line.
 - d. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
4. Allowing off-lease penetration points, after notice to mineral owners of the offsite tract, will result in maximum producing drainhole length, thereby

OIL AND GAS DOCKET NO. 06-0261254

increasing ultimate recovery from horizontal drainhole wells.

5. The proposed “stacked lateral” rule for the Carthage, SE (CV) Field will allow stacked horizontal laterals within the correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes.
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.
7. Continued suspension of the allocation formula is appropriate, as there is a 100% market for all the gas produced.

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 Field Rules for the Carthage, SE (CV) 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 Commission amend the Field Rules for the Carthage, SE (CV) Field, as proposed by Samson.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner