

THE APPLICATION OF FOREST OIL CORPORATION TO AMEND THE FIELD RULES FOR THE CLARK MARTIN (GRANITE WASH) FIELD, ROBERTS COUNTY, TEXAS

HEARD BY: Brian K. Fancher - Technical Examiner

HEARING DATE: August 26, 2011

APPEARANCES:

REPRESENTING:

APPLICANT:

Doug Dashiell
Mimi Winetroub

Forest Oil Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field rules for the Clark Martin (Granite Wash) Field were temporarily adopted on June 16, 1987, per Order No. 10-90,219. Subsequently, an amendment to the density requirement was accepted and the field rules were made permanent, effective July 9, 1991, per Order No. 10-95,012. Field Rules in effect for oil wells in the field are confined to statewide rules. The current rules in effect for gas wells in the field are summarized as follows:

1. 660'-1,320' well spacing.
2. 160 acre density with 10% tolerance.
3. allocation based on 10% deliverability and 90% acres.

Forest Exploration Company ("Forest") requests that the field rules be amended as follows:

1. Designation of the field as the correlative interval from 8,470 feet to 9,515 feet, as shown on the log of the CNG Producing Company's, Martin Trust Lease, Well No.1 (API 42-393-31113), Roberts County.

2. 330'-0' well spacing for oil and gas wells with special provisions for "take points", a 33 foot "box" rule, and an "off-lease" penetration point for horizontal wells.
3. 160 acre density with 10% tolerance for gas wells.
4. Allocation based on 10% per well and 90% deliverability.

The applicant initially requested "take point" language to include that no horizontal well drilled in the subject field shall be drilled such that the first and last take point are nearer than two-hundred (200) feet to any property line, lease line, or subdivision line. The examiner opined the proposed first and last take point language, as proposed by Forest, to be inappropriate for the subject field based upon the evidence submitted in support of the application. The applicant did not consider the examiner's opinion as adverse in this instance.

Furthermore, the applicant requests the allocation formula in the subject field remain suspended, as there is a 100% market demand for all gas produced from the field. This application was unopposed and the examiner recommends that the field rules for the Clark Martin (Granite Wash) Field be amended as proposed by Forest, with the exception of the 200' property line, lease line, or subdivision line distance for the first and last take points.

DISCUSSION OF THE EVIDENCE

The Clark Martin (Granite Wash) Field was discovered in June 1987 at an average depth of 9,300 feet. The August 2011 proration schedules indicate two operators in the field with twenty-two producing gas wells and two producing oil wells. The cumulative production for the field is reported as approximately 12.4 MMCF, 248 MBC, and 30.8 MBO.

Forest requests that the field be designated as the correlative interval from 8,470 feet to 9,515 feet, as shown on the log of the CNG Producing Company's, Martin Trust Lease, Well No.1 (API 42-393-31113), Roberts County, Texas. Forest indicated the Granite Wash formation comprising the subject field in Roberts County has been determined to consist of numerous discontinuous, arkosic sandstones derived from the disintegration and weathering of granitic rocks. The subject field produces from an average gross thickness of approximately 1,045 feet, an average net effective thickness of approximately 321 feet, average porosity of 8%, and average water saturation of 40%.

Forest indicated it intends to further develop the subject field by drilling horizontal wells and therefore requests Field Rules with horizontal well language be incorporated into the existing Field Rules to provide for consistent development. Forest requests 330'-0' well spacing for both oil and gas wells with special provisions for "take points", a 33 foot "box" rule, and an "off-lease" penetration point for horizontal wells in the field.

Forest initially requested “take point” language to include that no horizontal well drilled in the subject field shall be drilled such that the first and last take points are nearer than two-hundred (200) feet to any property line, lease line, or subdivision line. In an effort to support it’s request, Forest submitted a technical publication¹ that discusses individual phases of methodology to maximize success of horizontal completions in tight gas sandstones. The aforementioned study references formations that produce from other fields in Texas, but does not incorporate the authors’ opinions and interpretations for wells completed in the subject field. Moreover, the applicant did not demonstrate the fracture lengths or effects from induced hydrofracs exerted upon the Granite Wash formation in a manner that delineates the margins of fractures from a hydrofrac stimulation performed on a horizontal well. Conversely, the referenced publication does provide examples of microseismic monitoring results performed on a horizontal well that was stimulated through hydrofracture processes; however, the publication does not provide results from a well located in the Granite Wash formation nor does it provide as to which formation or field the microseismic monitoring results are to be associated. The examiner opined it would be inappropriate to allow the first and last take point in a horizontal well completed in the subject field to be two-hundred (200) feet from any property line, lease line, or subdivision line based upon the evidence submitted by the applicant. The examiner recommends all take points in a horizontal well completed in the subject field conform to the proposed lease line spacing of 330 feet. The applicant did not consider the examiner’s opinion as adverse in this instance.

Forest proposes a tolerance “box rule” for any horizontal drainhole well that would allow all drainholes to deviate 33 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. At least three other Granite Wash fields already have a similar spacing rule, which includes the Allison Parks, Buffalo Wallow and Hemphill (Granite Wash) Fields.

In certain instances, 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. Forest requests the current Field Rules also be amended for the subject field to provide for an off-lease penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. Forest testified a horizontal well requires approximately 573 feet of horizontal displacement to build a 90 degree angle from vertical to horizontal in the subject field. The proposed rule would allow operators to drill horizontal wells with the penetration point, as defined by Rule 86, off of the lease, as long as no take-point is closer than 330’ to the lease line for the perpendicular distance measured along the horizontal drainhole. Forest proposes that an offsite penetration point be allowed 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. The Allison Parks (Granite Wash), B & B (GraniteWash), Mills Ranch (Granite Wash), and Stiles Ranch (Granite Wash Cons), along with several other Granite Wash fields, have been granted off-lease penetration points for horizontal wells.

¹SPE 110067; Horizontal Wells in Tight Gas Sands - A Methodology for Risk Management To Maximize Success.

Lastly, to satisfy state statutes, Forest requests a two factor allocation formula based upon 10% per well and 90% deliverability/potential. Forest also requests that the allocation formula be suspended, as there is a 100% market for all the gas produced. Furthermore, the applicant requests no maximum diagonal limitation and that operators be exempt from the filing of P-15's and plats for individual wells in the field.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. The Clark Martin (Granite Wash) Field was discovered in June 1987 at an average depth of 9,300 feet.
3. Current field rules provide for 660'-1,320' well spacing, 160 acre density with 10% tolerance, and allocation based on 10% deliverability and 90% acres for gas wells. Field rules for oil wells are defined by statewide rules.
4. The August 2011 proration schedules indicate two operators in the field with twenty-two producing gas wells and two producing oil wells.
5. The Granite Wash formation composing the subject field in Roberts County has been determined to consist of numerous discontinuous, arkosic sandstones derived from the disintegration and weathering of granitic rocks.
 - a. The average gross thickness is approximately 1,045 feet.
 - b. The average net effective thickness is approximately 321 feet.
 - c. The average porosity is 8% and average water saturation is 40%.
6. A spacing rule providing for a minimum of 330 feet from lease lines and no between wells spacing will allow flexibility in locating additional oil and gas wells in the field.
7. The Clark Martin (Granite Wash) Field should be designated as the correlative interval from 8,470 feet to 9,515 feet, as shown on the log of the CNG Producing Company's, Martin Trust Lease, Well No.1 (API 42-393-31113), Roberts County, Texas.
8. Allocation based on 10% per well and 90% deliverability/potential meets statutory requirements and will protect correlative rights.
9. Suspension of the allocation formula is appropriate while there is a 100% market demand for all gas produced from the subject field.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was given to all persons legally entitled to notice.
2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
3. Amending the field rules for the Clark Martin (Granite Wash) Field is necessary to prevent waste, protect correlative rights, and promote development of the field.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the field rules for the Clark Martin (Granite Wash) Field be amended, as proposed by Forest Oil Corporation, with exception of the 200' property line, lease line, or subdivision line distance to the first and last take points .

Respectfully submitted,

Brian K. Fancher
Technical Examiner