

OIL AND GAS DOCKET NO. 04-0260201

THE APPLICATION OF EOG RESOURCES, INC. TO AMEND FIELD RULES FOR THE LOPEZ, SE. (CONSOLIDATED) FIELD, DUVAL COUNTY, TEXAS

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

HEARING DATE: December 18, 2008

APPEARANCES:

Doug Dashiell
Nathan Andrews

George C. Neale

REPRESENTING:

EOG Resources, Inc.

Carrizo Oil & Gas, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field rules for the Lopez, SE. (Consolidated) Field were originally adopted in Final Order No. 04-0249491, effective December 19, 2006, as amended. The rules currently in effect for the field are summarized as follows:

1. Correlative interval from 7,800' to 9,500' as shown on the SP/Resistivity Log of the Humble Oil & Refining Company, Kohler A Lease, Well No.100;
2. Allocation based on 95% deliverability and 5% per well, with AOF status.

EOG Resources, Inc. ("EOG") requests that the Field Rules be amended to provide for 467' lease line spacing, no between well spacing and include a special provision that distances for horizontal wells be based on the closest "take point" in a horizontal well.

The application was unopposed and the examiner recommends that the Field Rules for the Lopez, SE. (Consolidated) Field be amended as proposed by EOG.

DISCUSSION OF EVIDENCE

The Lopez, SE. (Consolidated) Field was created December 19, 2006 by expanding

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the correlative interval for the Lopez, S.E. (8140) Field by Commission Order No. 04-0249491 effective December 16, 2006. There are five operators in the field and 49 wells are carried on the proration schedule. The field's allocation formula is currently suspended. Cumulative production from the field through December 2008 is 38.3 BCFG and 413.5 MBC.

The Lopez, SE. (Consolidated) Field interval is from 7,800 feet to 9,500 feet and includes the H-1 through H-9 Upper Wilcox Hinnant Sands. These sands are tight, thin, and laterally continuous. The sands are separated vertically by continuous shale units. The low permeability and vertical discontinuity led EOG to develop the field with horizontal wellbores that more effectively and economically develop the reserves in the field. EOG has successfully drilled 25 producing gas wells and plans additional wells in the future.

EOG requests 467 foot lease line spacing and no minimum between well spacing. No between-well spacing allows for placement of future horizontal wellbores in the best technical location from a geological and engineering standpoint to produce the reserves from the tight reservoirs in the field without being affected by the location of existing vertical wells. Effective drilling for these sandstone reservoirs requires more flexibility on well spacing in order to economically penetrate sufficient volumes of sandstone within lease boundaries. This flexibility allows incremental reserves to be produced from the field that would not otherwise be produced due to both technical and economic factors. The reduced spacing also allows more timely production and eliminates the need to drill unnecessary wells.

EOG also requests that a field rule be adopted which includes language relevant to measurement of distances to lease lines for horizontal drainhole wells. EOG's proposed rule specifies that, for purposes of lease line 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 the Barnett Shale and Cotton Valley Sand fields.

The proposed rule will 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. This will allow for sufficient lateral distance that is critical to building the minimum curvature needed for the horizontal drainhole to penetrate sufficient volumes of the lower permeability sandstones within lease boundaries for a commercially productive well. Horizontal drainhole length on a lease is then maximized, resulting in the 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.

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EOG also requests that the allocation formula remain suspended, as there is a 100% market for all the gas produced from the field.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Lopez, SE. (Consolidated) Field was created December 19, 2006 by expanding the correlative interval for the Lopez, S.E. (8140) Field by Commission Order No. 04-0249491 effective December 16, 2006.
 - a. The approved field interval is from 7,800 feet to 9,500 feet and includes the H-1 through H-9 Upper Wilcox Hinnant Sands.
 - b. The field's allocation formula is suspended.
 - c. There are five operators in the field and 49 wells are carried on the proration schedule.
3. No between-well spacing allows for placement of future horizontal wellbores in the best technical location from a geological and engineering standpoint to produce the reserves from the tight reservoirs in the field without being affected by the location of existing vertical wells.
4. A spacing rule which utilizes "take-points" in a horizontal well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
 - a. The Upper Wilcox Hinnant Sands are tight, thin, laterally continuous and are not commercially productive unless fracture-stimulated. The sands are separated vertically by continuous shale units.
 - 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

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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.
5. 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.
6. Suspension of the allocation formula in the field is appropriate because there is a 100% market for any gas produced from 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 Lopez, SE. (Consolidated) 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 Lopez, SE. (Consolidated) Field as proposed by EOG.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner