



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL AND GAS DOCKET NO. 08-0278970**

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**THE APPLICATION OF BC OPERATING, INC. TO AMEND FIELD RULES FOR THE  
GOLDSMITH, E. (PENNSYLVANIAN) FIELD, ECTOR COUNTY, TEXAS**

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**HEARD BY:** Brian Fancher, P.G. - Technical Examiner  
Michael Crnich - Legal Examiner

**HEARING DATE:** November 28, 2012

**APPEARANCES:** **REPRESENTING:**

**APPLICANT:**

Paul Tough  
Mike Moylett  
Gerard G. Vavrek

BC Operating, Inc.

**EXAMINERS' REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Special Field Rules for the Goldsmith, E. (Pennsylvanian) Field were adopted in Final Order No. 8-30,047, effective May 19, 1954. The current special Field Rules are summarized as follows:

1. 660'-1,320' well spacing;
2. 80 acre oil units;
3. Allocation based on 75% acres and 25% per well;
4. Surface Casing requirement.

BC Operating, Inc. ("BCO") requests that the Field Rules be amended and renumbered, as shown below:

1. Designated correlative interval;
2. 330'-933' well spacing;

3. 80 acre oil units with optional 20 acre density;
4. Allocation based on 75% acres and 25% per well.

The examiners recommended that Rule 4, governing surface casing requirements for wells completed in the subject field, be rescinded due to surface casing requirements being set forth by Statewide Rule 13. BCO did not consider the examiners modification adverse.

The application is unopposed and the examiners recommend that the Field Rules for the Goldsmith, E. (Pennsylvanian) Field be amended and renumbered, as proposed by BCO and modified by the examiners.

### **DISCUSSION OF EVIDENCE**

The Goldsmith, E. (Pennsylvanian) Field is designated as an oil field and was discovered in January 1953 at an average depth of 8,400 feet. There are two wells carried on the oil proration schedule, with BCO as the only operator in the subject field. The sole producing well, the Blakeney Lease, Well No. 1 (API No. 42-135-85831) currently produces on rod and pump at 10 barrels of oil per day ("BO") and 1 barrel of water ("BW"). The top allowable in the field is governed by a Maximum Efficient Rate ("MER") of 182 BO per day per well.

BCO testified the subject field is comprised of Pennsylvanian-aged strata, primarily the Canyon and Strawn formations, with highly fractured carbonates that contain vuggy porosity. BCO testified the reservoir trapping mechanism is structural and stratigraphic, with hydrocarbon production being mainly controlled by vuggy porosity streaks in the reservoir that are in communication with the natural fracture system of the reservoir. BCO testified that through core analyses from two wells, the reservoir comprising the subject field contains an average net porosity of three percent and an average net permeability of 300 millidarcies (mD).

There is currently no defined correlative interval for the field. At the hearing, BCO requested that the field be defined as the correlative interval from 8,385 feet to 8,712 feet as shown on the log of the BC Operating, Inc., EGHU (Blakeney) Well No. 1604 (API No. 42-135-07812), Section 30, Block 43, T&P RR Co. / Tennie R. Sevier Survey, A-655, Ector County, Texas. The correlative interval includes the entire Canyon formation and a portion of the upper Strawn formation. BCO testified the oil-water contact, estimated to occur at a subsurface depth of 8,712 feet (5,600 feet below sea level), occurs below the top of the Strawn formation. BCO testified there are no other fields within the area comprising the subject field, that produce from the Strawn formation.

BCO testified the subject field is stratigraphically situated above the deeper Clear Fork formation ("the Clear Fork"). BCO testified the Clear Fork is the primary zone it targets for exploration and production of hydrocarbons, and that the subject field is a secondary zone that it plans to down-hole commingle with Clear Fork production. BCO testified that the subject field is uneconomical to drill and produce alone.

As such, BCO testified it seeks to adopt Field Rules commensurate with those that govern the Clear Fork. BCO testified it seeks to amend the density provision governing the current field rules for the subject field to provide for optional 20-acre proration units. BCO provided drainage area calculations for 18 vertical wells that produce from the subject field. The drainage areas range from 1 acre up to a maximum of 94 acres. The average drainage area was calculated to be approximately 19.25 acres. The majority of the 18 wells indicate drainage areas less than 20 acres.

Based on the drainage area calculations, BCO proposes 330'-933' well spacing to provide flexibility in placing wells in the subject field.

### FINDINGS OF FACT

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
2. BC Operating, Inc. ("BCO") seeks to amend the current Field Rules for the Goldsmith, E. (Pennsylvanian) Field to provide for a designated correlative field interval, 330'-933' well spacing, and 80-acre proration units with 20-acre optional proration units.
3. BCO is the sole operator in the Goldsmith, E. (Pennsylvanian) Field.
4. The Goldsmith, E. (Pennsylvanian) Field is designated as an oil field and was discovered in January 1953 at an average depth of 8,400 feet.
5. Special Field Rules for the Goldsmith, E. (Pennsylvanian) Field were adopted in Final Order No. 8-30,047, effective May 19, 1954.
6. Field Rules adopted in Final Order 8-30,047 provide 660'-1,320' well spacing, 80-acre proration units, and a two-factor allocation formula.
7. The Goldsmith, E. (Pennsylvanian) Field should be defined as the correlative interval from 8,385 feet to 8,712 feet as shown on the log of the BC Operating, Inc., EGHU (Blakeney) Well No. 1604 (API No. 42-135-07812), Section 30, Block 43, T&P RR Co. / Tennie R. Sevier Survey, A-655, Ector County, Texas. The correlative interval includes the entire Canyon formation and a portion of the upper Strawn formation.
8. Field Rules that provide for 330'-933' well spacing, and 80-acre proration units with 20-acre optional proration units are appropriate for the Goldsmith, E. (Pennsylvanian) Field.
  - a. BCO continues to drill infill vertical wells in the Goldsmith, E. (Pennsylvanian) Field that will be down-hole commingled with the Clear Fork formation.

- b. Drainage areas for 18 vertical wells that produced in the field range from 1 acre up to a maximum of 94 acres.
- c. The average drainage area was calculated to be approximately 19.25 acres.

**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 and renumbering the Field Rules for the Goldsmith, E. (Pennsylvanian) 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 that the Commission amend and renumber the Field Rules for the Goldsmith, E. (Pennsylvanian) Field, as requested by BC Operating, Inc..

Respectfully submitted,



Brian Fancher, P.G.  
Technical Examiner



Michael Crnich  
Legal Examiner