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HEARINGS SECTION

# RAILROAD COMMISSION OF TEXAS

# OFFICE OF GENERAL COUNSEL

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OIL AND GAS DOCKET NO. 08-0246172

APPLICATION OF BROWNING OIL COMPANY, INC. TO AMEND THE FIELD RULES FOR THE BRUNSON RANCH (PENN, LO.-ATOKA) FIELD, LOVING COUNTY, TEXAS

HEARD BY: Thomas H. Richter, P.E. DATE OF HEARING: March 31, 2006 APPEARANCES:

Clark Jobe, attorney Cary McGregor REPRESENTING:

Browning Oil Company, Inc.

## EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

This is the unprotested application of Browning Oil Company to amend the field rules as adopted in Order No. 8-76,228, effective June 1, 1981, as amended, for the Brunson Ranch (Penn, Lo.-Atoka) Field that currently provide for the following:

- Minimum well spacing of 1320'/2640' (lease line/between well);
- 640 acre gas proration units plus 10% tolerance and a maximum diagonal of 12,000';
   and optional 320 acre density and a maximum diagonal of 6,500';
- An allocation formula based on 100% acreage and the allocation formula is currently suspended (date of suspension April 1, 1995).

# Browning Oil proposes the following:

- The entire combined correlative interval from 15,270' to 16,270' as shown on the Compensated Neutron Formation Density log of the Getty Oil Company (now Gruy Petroleum Management Co.), Ludeman "7-26" Lease Well No. 2 (API No. 42-301-30347), Public School Land Survey, A-1215, Loving County, Texas, is designated as the Brunson Ranch (Penn, Lo.-Atoka) Field.
- Minimum well spacing of 933'/1867';

- The addition of optional 160 acre density and a maximum diagonal of 4500'; and
- An allocation formula based on 25% acreage and 75% deliverability and continued suspension of the allocation formula.

The examiner recommends approval of the application.

#### DISCUSSION OF THE EVIDENCE

The Brunson Ranch (Penn, Lo.-Atoka) Field was discovered in 1981 at 15,446' subsurface depth. Special Field Rules were adopted pursuant to Order No. 8-76,288 effective June 1, 1981, as amended. The field is classified as Non-Associated. Currently there are three operators in the field and 8 wells. Browning Oil has standing as an operator in the field as it is currently completing (the well is producing and completion forms are being filed) its Bennett-Brunson 13-26 Unit Lease Well No. 1.

The entire combined correlative interval from 15,270' to 16,270' as shown on the Compensated Neutron Formation Density log of the Getty Oil Company (now Gruy Petroleum Management Co.), Ludeman "7-26" Lease Well No. 2 (API No. 42-301-30347), Public School Land Survey, A-1215, Loving County, Texas, should be designated as the Brunson Ranch (Penn, Lo-Atoka) Field. The proposed designated interval extends from the top of the Atoka, including the Crittendon Sand, Atoka Lime, Brunson, Ludeman, Lower Atoka, Basal Atoka to the top of the Morrow Formation.

Optional 160 acre density is necessary for the efficient and effective depletion of the reservoir. Of the 15 wells that have been completed in the field, all but two wells were completed between 1980 - 1982. Cumulative production from the field is 64.6 BCF of gas and 63,000 barrels of condensate. Current production ranges from 2 MCFD to 2,855 MCFD (median is 130 MCFD). Volumetric and production decline analysis was used to determine drainage areas for the wells that have produced from the field. Basic reservoir parameters are: average porosity 9%; average water saturation 35% and an average net pay thickness of 20'. Assuming 160 acre drainage, the recoverable gas-in-place is 2.46 BCF (15,378 MCF/acre). The ultimate recoveries range from .1 BCF to 24 BCF. The calculated drainage areas range from 8 acres to 1,561 acres. Four of the wells have drainage areas of 117; 121; 176; and 178 acres.

The proposed minimum well spacing, 933'/1867' (leaseline/between well) is necessary to provide flexibility in locating wells for optimum drainage patterns and is the minimum well spacing normally associated with 160 acre density.

Because the proposed field interval is combining multiple productive zones, a two-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula based on 75% deliverability and 25% acreage satisfies this requirement.

Continuation of suspension of the allocation formula is appropriate as there is still 100% market for the gas produced from the subject field.

## FINDINGS OF FACT

- Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
- There was no protest at the call of the hearing.
- The Brunson Ranch (Penn, Lo.-Atoka) Field was discovered in 1981 at 15,446' subsurface depth.
  - Special Field Rules were adopted pursuant to Order No. 8-76,228 effective June 1, 1981, as amended and is classified as Non-Associated.
  - Currently there are three operators in the field and 8 wells.
  - c. Browning Oil has standing as an operator in the field as it is currently completing its Bennett-Brunson 13-26 Unit Lease Well No. 1.
- 4. The entire combined correlative interval from 15,270' to 16,270' as shown on the Compensated Neutron Formation Density log of the Getty Oil Company (now Gruy Petroleum Management Co.), Ludeman "7-26" Lease Well No. 2 (API No. 42-301-30347), Public School Land Survey, A-1215, Loving County, Texas, should be designated as the Brunson Ranch (Penn, Lo.-Atoka) Field.
- Optional 160 acre density is necessary for the efficient and effective depletion of the reservoir.
  - Current production ranges from 2 MCFD to 2,855 MCFD (median is 130 MCFD).
  - Volumetric and production decline analysis was used to determine drainage areas for the wells that have produced from the field.
  - Assuming 160 acre drainage, the recoverable gas-in-place is 2.46 BCF. The ultimate recoveries range from .1 BCF to 24 BCF.
  - d. The calculated drainage areas range from 8 acres to 1,561 acres with four of the wells having drainage areas of 117; 121; 176; and 178 acres.
- The proposed minimum well spacing, 933'/1867' (leaseline/between well) is necessary to
  provide flexibility in locating wells for optimum drainage patterns and is the minimum well
  spacing normally associated with 160 acre density.
- Continuation of suspension of the allocation formula is appropriate as there is still 100% market for the gas produced from the subject field.

 Because proposed field interval is combining multiple productive zones, a two-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula based on 75% deliverability and 25% acreage satisfies this requirement.

# CONCLUSIONS OF LAW

- Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
- All things have occurred and been accomplished togive the Commission jurisdiction in this
  matter.
- Consideration of field rules, a determination of their effectiveness and appropriate actions are a matter within the Commission jurisdiction.
- Adoption of the proposed amended field rules will prevent waste, foster conservation and protect correlative rights.
- Continued suspension of the allocation formula is appropriate pursuant to Statewide Rule 31(j).

## EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed amended field rules for the Brunson Ranch (Penn, Lo.-Atoka) Field.

Respectfully submitted,

Thomas H. Richter, P.E.

Technical Examiner

Office of General Counsel