OIL AND GAS DOCKET NO. 05-0247576

APPLICATION OF ENCANA OIL & GAS (USA) INC. TO AMEND THE FIELD RULES FOR THE BEAR GRASS (COTTON VALLEY CONS) FIELD, LEON, FREESTONE AND ROBERTSON COUNTIES, TEXAS

HEARD BY: Thomas H. Richter, P.E. **DATE OF HEARING:** June 20, 2006

Philip Whitworth, attorney

APPEARANCES:

REPRESENTING:

Encana Oil & Gas (USA) Inc.

Rick Johnston

EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

This is the unprotested application of Encana Oil & Gas (USA) Inc. to amend the field rules for the Bear Grass (Cotton Valley Cons) Field as adopted by Order No. 05-0237426, effective February 24, 2004, as amended, currently provide for:

- 1. The entire combined correlative interval from 12,000' to 14,850' as shown on the log of the McAshan Gas Unit Well No. 2 (API No. 289-30464), G. Diaz Survey, A-1276, Leon County, Texas, be designated as the Bear Grass (Cotton Valley Cons) Field.
- 2. Minimum well spacing of 467'/1200' (lease line/between well);
- 3. Proration units of 320 acres with 10% tolerance and a maximum diagonal of 6,500' and optional 40 acre density and a maximum diagonal of 2,500';
- 4. An allocation formula based on 95% acreage and 5% proratable wells in the field.

Encana proposes amending the rules to provide for:

- 1. No Change.
- 2. Minimum well spacing of 467'/600' (lease line/between well);
- 3. Optional 20 acre density and a maximum diagonal of 1,800';
- 4. An allocation formula based on 95% deliverability and 5% per well.

The examiner recommends approval of the application.

DISCUSSION OF THE EVIDENCE

The Bear Grass (Cotton Valley Cons) Field was created February 24, 2004 by consolidation of the Bear Grass (Bossier Sand), Bear Grass (Cotton Valley Lime), and Bear Grass (Cotton Valley Sd) Fields pursuant to Commission Order No. 05-0237426, effective February 24, 2004. In addition the Marquez (Bossier Sand) Field was consolidated into the Bear Grass (Cotton Valley Cons) Field on October 3, 2005 pursuant to Commission Order No. 05-0243816. This is a large multi-operator multi-well field (over 100 wells). Cumulative production from the field is 131.1 BCF of gas.

Optional 20 acre density is necessary for the efficient and effective depletion of the reservoir. A review was made of 15 wells in the field. Volumetric and production decline analysis were used to determine the drainage area of the wells. The wells selected were wells that have only been produced from the Cotton Valley Lime, Cotton Valley Sand and the Bossier intervals. The pay thicknesses range from 50' to 284' (average 120'). The estimated ultimate recoveries range from 115 MMCF to 3.5 BCF of gas (average 1.26 BCF). The calculated drainage areas range from 3 acres to 107 acres (average 24 acres). Eleven of the wells will drain 29 acres or less. Data presented in the field consolidation hearing in January 2004 recounted well analysis determinations of wells draining less than 20 acres (O&G Docket No. 05-0237426 Findings of Fact No. 7 (c), (d), (e)). The proposed optional 20 acre density is identical to the optional density rule in three other area Cotton Valley Fields: Teague Field; Nan-Su-Gail Field; Dew Field.

The proposed minimum well spacing, 467'/600' (leaseline/between well) is the appropriate minimum well spacing to provide flexibility in locating wells (new or re-completions) in this stacked consolidated interval of sands.

An allocation formula based primarily on deliverability rather than acreage is more representative of the reserves that a well can recover from the three formations that comprise the field. As stated above, the pay thickness of the reservoirs vary greatly and areal extent is not a consideration. 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 95% deliverability and 5% per well satisfies this requirement. There is 100% market for all the gas produced from the subject field and the allocation formula should remain suspended.

FINDINGS OF FACT

- 1. Notice of this hearing was sent to all operators in the subject fields at least ten (10) days prior to the subject hearing.
- 2. There was no protest at the call of the hearing.
- 3. The Bear Grass (Cotton Valley Cons) Field was created February 24, 2004 by consolidation of the Bear Grass (Bossier Sand), Bear Grass (Cotton Valley Lime), and Bear Grass (Cotton Valley Sd) Fields pursuant to Commission Order No. 05-0237426, effective February 24,

2004.

- a. The Marquez (Bossier Sand) Field was consolidated into the Bear Grass (Cotton Valley Cons) Field on October 3, 2005 pursuant to Commission Order No. 05-0243816.
- b. This is a large multi-operator multi-well field (over 100 wells).
- 4. Optional 20 acre density is necessary for the efficient and effective depletion of the reservoir.
 - a. Volumetric and production decline analysis determined the drainage area of the wells that have only been produced from the Cotton Valley Lime, Cotton Valley Sand and the Bossier intervals.
 - b. The pay thicknesses range from 50' to 284' (average 120') and the estimated ultimate recoveries range from 115 MMCF to 3.5 BCF of gas (average 1.26 BCF).
 - c. The calculated drainage areas of 15 wells range from 3 acres to 107 acres as 11 of the wells will drain 29 acres or less.
 - d. Data presented in the field consolidation hearing in January 2004 determined wells draining less than 20 acres (O&G Docket No. 05-0237426 Findings of Fact No. 7 (c), (d), (e)).
 - e. The proposed optional 20 acre density is identical to the optional density rule in three other area Cotton Valley Fields: Teague Field; Nan-Su-Gail Field; Dew Field.
- 5. The proposed minimum well spacing, 467'/600' (leaseline/between well) is the appropriate minimum well spacing to provide flexibility in locating wells (new or re-completions) in this stacked consolidated interval of sands.
- 6. The proposed two-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula based on 95% deliverability and 5% per well satisfies this requirement.
 - a. An allocation formula based primarily on deliverability rather than acreage is more representative of the reserves that a well can recover from the three formations that comprise the field.
- 7. There is 100% market for all the gas produced from the subject field and the allocation formula should remain suspended.

CONCLUSIONS OF LAW

- 1 Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
- 2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
- 3. Consideration of field rules, a determination of the effectiveness of the rules and appropriate actions is a matter within the Commission jurisdiction.
- 4. Adoption of the proposed amended field rules will prevent waste, foster conservation and protect correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed amended field rules for the Bear Grass (Cotton Valley Cons) Field.

Respectfully submitted,

Thomas H. Richter, P.E. Technical Examiner Office of General Counsel