

**THE APPLICATION OF BARRETT BROTHERS OIL & GAS, INC. TO CONSIDER  
TEMPORARY FIELD RULES FOR THE CELESTE BROWN (FRIO) FIELD, VICTORIA  
COUNTY, TEXAS**

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**Heard by:** Donna K. Chandler on September 29, 2000

**Appearances:**

Ana Maria Marsland  
James Miller  
Wayman Gore

**Representing:**

Barrett Brothers Oil & Gas

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Barrett Brothers Oil & gas Inc. requests that temporary field rules be adopted for the Celeste Brown (Frio) Field. The proposed rules are summarized as follows:

1. Designation of the field as the correlative interval from 5,330 feet to 5,440 feet as shown on the log of the Celeste Brown No. 1;
2. 467' - 933' well spacing;
3. 160 acre gas units plus 10% tolerance and a maximum diagonal of 6,500 feet;
4. Allocation based on 75% acreage and 25% deliverability.

This application was unopposed and the examiner recommends adoption of the temporary field rules proposed by Barrett Brothers, subject to review in 18 months.

**DISCUSSION OF EVIDENCE**

The Celeste Brown (Frio) Field was discovered in April 2000 upon completion of the Celeste Brown No. 1 by Barrett Brothers Oil & Gas. The well is perforated from 5,404 to 5,410 feet and tested at 740 MCFD on initial test. Barrett Brothers plans to drill at least one additional well in the field.

The subject reservoir is a stratigraphic trap which was identified by seismic. Barrett Brothers

has two other similar discoveries in this immediate area, also in the Frio.

The nearest comparable production is from the Wood High Field approximately one mile to the southeast. Barrett Brothers used the decline rate seen in the Wood High Field to estimate ultimate recovery from the Celeste Brown No. 1. The Celeste Brown No. 1 has stabilized at approximately 1,000 MCFD. Assuming 10% exponential decline, the well will ultimately recovery 3.4 BCF of gas.

The reservoir encountered in the Celeste Brown No. 1 has 33% average porosity and 31% average water saturation. Net pay is 14.5 feet based on 15% porosity cut-off and 40% water saturation cut-off. The calculated drainage area for the well is 168 acres.

The log of the Celeste Brown No. 1 shows an additional pay interval at approximately 5,340 feet. This shallower Frio interval does not appear to be extensive as it has not been correlated to any other area wells. Barrett Brothers requests that the shallower interval be included within the field designation for the field.

The seismic interpretation of the field indicates an areal extent of approximately 250 acres. A tighter, less porous portion of the reservoir extends to the south of the Celeste Brown No. 1. A closer than normal well spacing rule will accommodate drilling an additional well in this portion of the reservoir.

Because the proposed field interval includes two separate accumulations of hydrocarbons, a two factor allocation formula is appropriate for the entire interval to be considered a single field. Allocation based on 75% acreage and 25% deliverability will satisfy statutory requirements.

### **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 Celeste Brown (Frio) Field was discovered in April 2000 upon completion of the Celeste Brown No. 1 by Barrett Brothers Oil & Gas. No other wells have been completed in the field.
3. The Celeste Brown No. 1 is perforated from 5,404 to 5,410 feet and tested at 740 MCFD on initial test.
4. A well in the Celeste Brown (Frio) Field can reasonably be expected to drain at least 160 acres.
  - a. The Celeste Brown No. 1 has stabilized at approximately 1,000 MCFD.
  - b. Assuming 10% exponential decline, the well will ultimately recovery 3.4

BCF of gas.

- c. The calculated drainage area for the well is 168 acres.
5. The log of the Celeste Brown No. 1 shows an additional thin pay interval in the Frio at approximately 5,340 feet. This interval is not aerially extensive and should be considered a part of the Celeste Brown (Frio) Field in order to be produced.
6. Well spacing a minimum of 467 feet from lease lines and 933 feet between wells is necessary to provide flexibility in locating wells.
7. Allocation based on believes that 75% acreage and 25% deliverability is a reasonable formula which will protect correlative rights of mineral owners and satisfy statutory requirements.

#### **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. Adoption of the proposed field rules for the Celeste Brown (Frio) Field on a temporary basis is necessary to prevent waste, protect correlative rights and promote development of the field.

#### **RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that the Commission adopt the field rules proposed by Barrett Brothers Oil & Gas for the Celeste Brown (Frio) Field on a temporary basis, subject to review in 18 months.

Respectfully submitted,

Donna K. Chandler  
Technical Examiner