

**THE APPLICATION OF DISCOVERY OPERATING INC. TO CONSIDER INCREASED NET GOR AUTHORITY FOR THE COMANCHE CREEK 25 NO. 1 IN THE LEHN-APCO, S. (WICHITA-ALBANY) FIELD, PECOS COUNTY, TEXAS**

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**Heard by:** Andres J. Trevino, P.E. on April 13, 2007

**Appearances:**

John Franklin Miller

**Representing:**

Discovery Operating, Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Discovery Operating, Inc. requests authority to produce its Comanche Creek 25 No. 1 under increased net gas-oil ratio authority with a daily gas limit of 500 MCFD. Discovery Operating also requests that all overproduction for the well be canceled.

This application was unopposed and the examiner recommends approval of increased net gas-oil ratio authority with a daily gas limit of 500 MCFD and cancellation of overproduction.

**DISCUSSION OF EVIDENCE**

The Lehn-Apco, S. (Wichita-Albany) Field was discovered in 1990 at a depth of 4,384 feet. The top allowable in the field is 158 BOPD, with a casinghead gas limit of 316 MCFD per well. There are 6 active oil wells in the field.

The Comanche Creek 25 No. 1 was completed in November 2006 with perforations between 4,254 feet and 4,476 feet. On initial test, the well produced at a rate of 10.5 BOPD, 483 MCFD and 119 BWPD flowing through a 13/64" choke with 840 psi flowing tubing pressure.

Discovery Operating tested the well at various rates. The testing demonstrates that the well is rate sensitive and produces at higher gas-oil ratios when restricted to rates near the current allowable of 316 MCFD. Also, at reduced rates, the well begins to load, as evidenced by decreases in flowing tubing pressure. The most stable production occurred at rates of about 487 MCFD, when the average gas-oil ratio was approximately 45,215 cubic feet per barrel.

Restricting gas production from the well is not necessary to prevent waste. Discovery Operating demonstrated through engineering data provided, that the minimum gas flow rate

required to prevent liquid slugging in a 2" tubing with 860 psi flowing tubing pressure is 470 MCFPD.

The well has accumulated approximately 3,136 MCF of casinghead gas overproduction as of April 5, 2007. Discovery Operating requests that this overage be canceled.

**FINDINGS OF FACT**

1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of hearing.
2. The top allowable in the Lehn-Apco, S. (Wichita-Albany) Field is 158 BOPD and 316 MCFD. There are 6 producing oil wells in the field.
3. The Comanche Creek 25 No. 1 was completed in November 2006 and produced at a rate of 10.5 BOPD, 483 MCFD and 119 BWPD flowing through a 13/64" choke with 840 psi flowing tubing pressure.
4. The Comanche Creek 25 No. 1 is rate sensitive and produces at higher gas-oil ratios when restricted to rates near the current allowable of 316 MCFD.
5. The most stable production occurred at rates of about 487 MCFD, when the average gas-oil ratio averaged 45,215 cubic feet per barrel.
6. Engineering data shows that the minimum gas flow rate required to prevent liquid slugging in a 2" tubing with 860 psi flowing tubing pressure is 470 MCFPD.
7. Restricting gas production from the well is not necessary to prevent waste.
8. The well has accumulated approximately 3,136 MCF of casinghead gas overproduction.

**CONCLUSIONS OF LAW**

1. Notice of this hearing was given as specified in the provisions of all regulatory codes.
2. All things have occurred or been accomplished to give the Commission jurisdiction in this matter.

3. Approval of increased net gas-oil ratio authority with a casinghead gas limit of 500 MCFD for the Comanche Creek 25 No. 1 in the Lehn-Apco, S. (Wichita-Albany) Field and cancellation of overproduction will prevent waste and will not harm correlative rights.

**RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that the Comanche Creek 25 No. 1 in the Lehn-Apco, S. (Wichita-Albany) Field be authorized to produce under net gas-oil ratio authority with a daily gas limit of 500 MCFD and that all accumulated overproduction for this lease be canceled.

Respectfully submitted,

Andres J. Trevino, P.E.  
Technical Examiner