

June 10, 2002

**OIL AND GAS DOCKET NO. 08-0231397**

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**THE APPLICATION OF TWO OAKS OPERATING COMPANY, LLC., FOR TEMPORARY  
FIELD RULES IN THE HERMOSA (WOLFCAMP) FIELD, REEVES COUNTY, TEXAS**

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**Heard by:** Margaret Allen, Technical Hearings Examiner

**Procedural history**

Application received: May 10, 2002

Hearing held: June 10, 2002

**Appearances**

Mike Locke  
Bill Spencer

Representing  
Two Oaks Operating Company, LLC

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Two Oaks Operating Company is seeking the following temporary rules for the Hermosa (Wolfcamp) Field:

1. Designated interval from 13,150' to 15,600' as shown on the log of the Two Oaks Operating Company, LLC., Hermosa Unit Lease Well No. 1;
2. 660-1320' well spacing;
3. 320 acre gas proration units with 10% tolerance, and 6500' maximum diagonal; and
4. allocation based 5% on deliverability and 95% on acreage.

**DISCUSSION OF THE EVIDENCE**

The Hermosa (Wolfcamp) Field was discovered in May of 2001, when Two Oaks re-entered the Hermosa Unit No. 1 and completed in the Wolfcamp Formation. Most of the other wells in the area are producing from shallower formations and there are no other Wolfcamp fields within 2-1/2 miles. There are however, three Wolfcamp fields in Reeves County with density of 320 acres or greater.

The discovery well was perforated from 14,836' to 14,866' and tested at 822 MCF/D. In April of 2002, perforations were added between 14,710' and 14,740' and the deliverability increased to 1331 MCF/D. Cumulative production is 136 MMCF of gas. The Wolfcamp Formation is a thick sequence of carbonates and shales occurring between 13,150' and 15,600' in the discovery well. The operator

intends to reperfurate shallower lenses in the Wolfcamp when the deeper lenses depletes. The Wolfcamp formation has been faulted here, and Two Oaks is seeking smaller than standard spacing to accommodate additional wells near faults where necessary.

The applicant estimated that another 400 MMCF would be produced during transient flow from the shallower perforations, at an average rate of 650 MCF/D. After that, another 1833 MMCF could be produced assuming 10% decline and an economic limit of 50 MCF/D. The estimated ultimate recovery from the perforations in the porous lens between 14,710 and 14,740' is 2.3 BCF. This particular lens has about 10' of net pay, with 20% porosity and 40% water saturation. The estimated permeability is 0.12 md and the initial bottom-hole pressure was 6859 psi. Assuming 50% recovery, there are 2.4 BCF of recoverable under 320 acres in such a reservoir lens.

Because the Wolfcamp contains multiple reservoirs, a two-factor allocation formula is required by statute. One based 5% on deliverability and 95% on acreage will satisfy the statutory requirements and protect correlative rights.

### **FINDINGS OF FACT**

1. Notice of this hearing was mailed to all operators in the field and to all offset operators and unleased mineral interest owners to the discovery tract on May 17, 2002.
2. The discovery well, the Two Oaks Hermosa Unit Lease Well No. 1, was completed in May of 2001, and perforated from 14,836' to 14,866'.
3. Production declined from 822 MCF/D, and in April of 2002, a second set of perforations between 14,710 and 14,740' was added.
4. Deliverability increased to 1331 MCF/D and cumulative production through May of 2002 is 136 MMCF of gas.
5. The Wolfcamp Formation extends from 13,150' to 15,600' in the discovery well and includes multiple porous lenses separated by shales.
6. The operator will continue to perforate shallower producing lenses as the deeper Wolfcamp lenses deplete.
7. Gas proration units of 320 acres are appropriate for temporary field rules.
  - a. The discovery well may be able to produce as much as 2.3 BCF from the lens perforated between 14,710 and 14,740'.
  - b. This particular lens has about 10' of net pay, with 20% porosity and 40% water saturation.
  - c. Assuming a 50% recovery factor, there are 2.4 BCF of recoverable gas under 320 acres in such a reservoir lens.
8. Well spacing of 660-1320' is smaller than standard for 320 acre units, but will allow additional

wells to be located near the existing faults if necessary.

9. Allocation based 5% on deliverability and 95% on acreage will satisfy statutory requirements for wells with multiple reservoirs and protect correlative rights.

#### **CONCLUSIONS OF LAW**

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested temporary field rules will prevent waste, protect correlative rights within the field, and promote orderly development of the field.

#### **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the requested temporary field rules be adopted for the Hermosa (Wolfcamp) Field, and reviewed in 18 months.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner

Date of Commission Action: June 25, 2002