

**OIL AND GAS DOCKET NO. 04-0233590**

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**THE APPLICATION OF DEVON ENERGY PRODUCTION CO. L.P. FOR AN MER ALLOWABLE FOR THE T.S. SCHROEDER LEASE, WELL NO. 6, AGUA DULCE (6650) FIELD, NUECES COUNTY, TEXAS**

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

**Procedural history**

Application received: January 16, 2003  
Hearing held: March 26, 2003

**Appearances**

John Soule  
Chad Shorre

Representing  
Devon Energy Production Co. L.P.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Devon Energy Production Co. ("Devon") wants to produce its T.S. Schroeder Lease Well No. 6, Agua Dulce (6650) Field, Nueces County, Texas, with an oil allowable of 200 barrels per day. At the hearing it requested a daily gas limit of 1500 MCF also be approved. It is also requesting the overproduction for this well be canceled.

**DISCUSSION OF THE EVIDENCE**

The Agua Dulce (6650) Oil Field was discovered in 1982, but there were no wells listed in the field when Devon completed its T.S. Schroeder No. 6 in August, 2002. This well was perforated from 6566' to 6588' and the top allowable for wells at this depth is 111 BOPD and 222 MCF per day. The well's current potential is 164 BOPD but its allowable is penalized to 23 BOPD by the reported gas/oil ratio of 9756 cubic feet per barrel. Cumulative production is 30,000 BO and 95 MMCF of gas. The well began accumulating overage immediately and overproduction is now about 20,000 BO and 43 MMCF.

According to Devon, Well No. 6 exhibits characteristics of both a gas cap expansion drive and a water drive. The reservoir is rate sensitive because the gas/oil ratio decreases at higher producing rates. Devon presented daily production data for the life of the well and every time the oil producing was less than 111 BOPD, the gas/oil ratio was higher than average.

Over the history of this well, when the daily oil rate was about 111 barrels, the gas/oil ratio was about 5000 cubic feet per barrel. A graph of gas/oil ratio vs oil rate shows the gas/oil ratio declined to about 2500 cubic feet per barrel when the oil rate was increased to 200 BOPD. The well has produced at rates over 200 BOPD a number of times but the gas/oil ratio trend is not consistent at rate above 200 barrels. The producing gas/oil has gradually increased since August, 2002, from 2500 cubic

feet per barrel to 5000. Over time, the gas/oil ratio will continue to increase and the well may become a statutory gas well.

The well's water/oil ratio is also increasing over time. Current oil cut is 30% and the well will become uneconomic when the oil cut declines to 10%. The estimated ultimate recovery is 50,000 BO. The well's oil rate has now declined to about 110 BOPD, but Devon plans to install artificial lift and believes the daily oil rate will increase. The current daily gas rate is 500 to 600 MCF but Devon believes this will increase if the oil rate can be increased to 200 barrels per day. The highest daily gas rate the well has produced was 1.5 MMCF per day (on October 12, 2002) and Devon requests that this be the daily gas limit.

This is the only well in the Agua Dulce (6650) Field and cancellation of overproduction will not harm correlative rights. Devon is drilling a number of wells in this highly-faulted area and believes that there is a 50% chance that one of them may encounter the same sandstone in this fault block.

### **FINDINGS OF FACT**

1. Notice of this hearing was issued to Devon Energy Production Co. L.P. ("Devon"), the only operator of record in the Agua Dulce (6650) Field on February 11, 2003.
2. The Agua Dulce (6650) Field was discovered in 1982, but was inactive when Devon completed its T.S. Schreiber Well No. 6 in August of 2002.
3. This well is perforated between 6566 and 6588', and the top allowable for a well at this depth is 111 BOPD with a daily gas limit of 222 MCF.
4. The current potential of this well is 164 BOPD, but its allowable is penalized to 23 BOPD due to a high gas/oil ratio.
5. The reservoir appears to have both gas cap expansion and a water drive.
6. Daily gas rate, gas/oil ratio and water/oil ratio are all increasing and the estimated ultimate recovery is 50,000 BO.
7. The well is rate sensitive and the gas/oil ratio is the lowest when the oil rate is about 200 BOPD.
8. Cancellation of this well's overproduction will not harm the correlative rights as this is the only well in the field.

### **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. Allowing the Devon Energy Production Co. L.P.-T.S. Schreiber Lease Well No. 6 to produce at a maximum daily oil rate of 200 barrels and gas rate of 1.5 MMCF will not cause waste and will promote conservation.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that Devon Energy Production Company's request to produce its T.S. Schreiber Lease Well No. 6 in the Agua Dulce (6650) Field at a maximum daily oil rate of 200 barrels and gas rate of 1.5 MMCF be granted.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner

Date of Commission Action: April 8, 2003