

**THE APPLICATION OF ENDEAVOR ENERGY RESOURCES LP TO AMEND AND  
RENUMBER FIELD RULES FOR THE LOCKRIDGE (DEVONIAN) FIELD, WARD  
COUNTY, TEXAS**

---

**HEARD BY:** Richard D. Atkins, P.E. - Technical Examiner

**HEARING DATE:** June 10, 2011

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

Dale E. Miller

Endeavor Energy Resources LP

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field Rules for the Lockridge (Devonian) Field were adopted in Final Order No. 8-71,334, effective February 12, 1979. The Field Rules are summarized as follows:

1. 1,867'-3,735' well spacing;
2. 640 acre gas units;
3. Allocation based on 100% acres with AOF status.

Endeavor Energy Resources LP ("Endeavor") requests that Field Rules for the Lockridge (Devonian) Field be amended and renumbered as follows:

1. Designation of the field as the correlative interval from 16,457 feet to 17,006 feet, as shown on the log of the Shell Oil Company - Black "A" Lease, Well No. 1 (API No. 42-475-11092);
2. 660'-1,320' well spacing;
3. 640 acre gas units with optional 320 acre density;

4. Allocation based on 100% acres with AOF status.

The application was unopposed and the examiner recommends that Field Rules for the Lockridge (Devonian) Field be amended and renumbered, as proposed by Endeavor.

### **DISCUSSION OF THE EVIDENCE**

The Lockridge (Devonian) Field was discovered in May 1971 at an average depth of 16,700 feet. The field is classified as non-associated and there are three producing gas wells and three operators carried on the proration schedule. Cumulative production from the field through April 2011 is 6.5 BCFG and 3.4 MBO.

There is currently no defined field interval for the field. Endeavor requests that the field be defined as the correlative interval from 16,457 feet to 17,006 feet, as shown on the log of the Shell Oil Company - Black "A" Lease, Well No. 1 (API No. 42-475-11092), Section 100, Block 34, H&TC RR Co. Survey, A-1202, Ward County, Texas. This interval includes the entire Devonian formation.

Endeavor is planning on drilling infill wells and requests Field Rules that provide for 660'-1,320' well spacing and 640 acre gas units with optional 320 acre density to provide consistency in developing the field and allow greater flexibility in selecting future drilling locations. From the available reservoir data, Endeavor estimated an average porosity of 5.5%, an average water saturation of 40%, an average net pay of 26 feet and a recovery factor of 70%.

Endeavor calculated drainage areas for three producing and two plugged wells in the field. The drainage areas ranged from 459 acres down to 7 acres, with an average of 273 acres. Four wells had drainage areas less than 320 acres. Endeavor submitted a table which showed that 12 fields in RRC District 8 already have similar spacing and density rules. The table included the Parsley, Sand Hills, West and Hershey, W. (Devonian) Fields.

Endeavor requests allocation based on 100% acreage, since the Devonian interval is not lenticular. Endeavor also requests that the allocation formula remain suspended, as there is a 100% market demand for all of the gas produced from the field.

### **FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.

2. The Lockridge (Devonian) Field was discovered in May 1971 at an average depth of 16,700 feet. The field is classified as non-associated and there are three producing gas wells and three operators carried on the proration schedule.
3. The Lockridge (Devonian) Field should be defined as the correlative interval from 16,457 feet to 17,006 feet, as shown on the log of the Shell Oil Company - Black "A" Lease, Well No. 1 (API No. 42-475-11092). This interval includes the entire Devonian formation.
4. Adoption of 660'-1,320' well spacing and 640 acre gas units with optional 320 acre density for the Lockridge (Devonian) Field is appropriate.
  - a. The calculated drainage areas on five wells ranged from 459 acres down to 7 acres, with an average of 273 acres. Four wells had drainage areas less than 320 acres.
  - b. Twelve fields in RRC District 8 already have similar spacing and density rules. The fields include the Parsley, Sand Hills, West and Hershey, W. (Devonian) Fields.
  - c. Endeavor is planning on drilling infill wells and Field Rules that provide for 660'-1,320' well spacing and 640 acre gas units with optional 320 acre density will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
5. Allocation based on 100% acres is a reasonable formula which will protect correlative rights of mineral owners in the field.
6. Continued suspension of the allocation formula is appropriate, as there is a 100% market demand for all of the gas produced from the field.

#### **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. Amending and renumbering the Field Rules for the Lockridge (Devonian) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

**RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the Commission amend and renumber the Field Rules for the Lockridge (Devonian) Field, as requested by Endeavor Energy Resources LP.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner