

**OIL AND GAS DOCKET NO. 06-0269421**

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**THE APPLICATION OF CHEVRON U. S. A. INC. TO AMEND AND RENUMBER FIELD RULES FOR THE CARTHAGE (TRAVIS PEAK 6400) FIELD, PANOLA COUNTY, TEXAS**

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

**DATE OF HEARING:** March 16, 2011

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

Brian R. Sullivan  
Greg Friend  
James Laning  
Chuck Treska  
Mathew Dangel  
Alex Rosales  
Jeffrey Wilson  
India Isbell  
Anneka Bourdell

Chevron U. S. A. Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field Rules for the Carthage (Travis Peak 6400) Field were adopted in Final Order No. 6-33,919, effective August 6, 1956. The Field Rules are summarized as follows:

1. 467'-1,320' well spacing;
2. 80 acre oil and gas units;
3. Allocation based on 75% acreage and 25% per well with AOF status;
4. Permitted gas-oil ratio;
5. Designated production unit;
6. Surface casing requirement.

Chevron U. S. A. Inc. ("Chevron") requests that the Field Rules be amended and

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renumbered as follows:

1. Designation of the field as the correlative interval from 6,546 feet to 8,463 feet as shown on the log of the Chevron U. S. A. Inc. - Mae Sealey Unit, Well No. 13;
2. 330' lease line spacing, 500' vertical to vertical and horizontal to horizontal well spacing with no minimum spacing requirement between horizontal and vertical wells and special provisions for "take points" and "off-lease" penetration point in horizontal wells;
3. 80 acre oil and gas units with no filing of plats with Form P-15;
4. Allocation based on 75% acreage and 25% per well with AOF status.

This application was unopposed and the examiner recommends that Field Rules for the Carthage (Travis Peak 6400) Field be amended and renumbered, as proposed by Chevron.

### **DISCUSSION OF EVIDENCE**

The Carthage (Travis Peak 6400) Field was discovered in March 1956 at an average depth of 6,400 feet. The field is an associated field with 7 producing oil wells and 14 producing gas wells and four operators carried on the proration schedules. The allocation formula is currently suspended. Cumulative production from the field through December 2010 is 39.1 BCFG and 1.9 MMBO.

It is requested that the field be defined as the correlative interval from 6,546 feet to 8,463 feet as shown on the log of the Chevron U. S. A. Inc. - Mae Sealey Unit, Well No. 13 (API No. 42-365-35065), J. Spencer Survey, A-589, Panola County, Texas. The interval includes the entire Travis Peak formation and is continuous across the area.

Chevron is proposing to drill horizontal wells and requests horizontal rules in order to promote the efficient and effective development of the remaining hydrocarbons. Chevron requests a spacing rule that requires 330' lease line spacing, 500' vertical to vertical and horizontal to horizontal well spacing with no minimum spacing requirement between horizontal and vertical wells and special provisions for "take points" and "off-lease" penetration point in horizontal wells. The proposed spacing is necessary to allow drilling of horizontal wells which may have to be drilled very near existing vertical wells in some cases.

Chevron also requests that a field rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Chevron's proposed rule specifies that, for purposes of lease line spacing, the nearest "take point" in

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a horizontal well be used. This take-point could be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. Similar rules have been adopted in other tight reservoirs in the area, including the Haynesville Shale and many Cotton Valley fields.

The proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 330 feet to a lease line, as long as no take-point is closer than 330 feet to any lease line. Horizontal drainhole length on a lease is then maximized, resulting in the additional recovery of oil or gas. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal well be used.

In some cases, it is beneficial to penetrate the reservoir off lease, while still having “take points” no closer to lease lines than allowed under the field rules. Chevron requests that Field Rules for the subject field provide for an off-lease penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In this field, a well generally requires approximately 600 feet of horizontal displacement to make the 90 degree turn from vertical to horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 600 feet from the lease line. Since there is a requested 330' lease line spacing for all take points, the proposed rule will allow approximately 300 feet of additional producing drainhole, resulting in the recovery of additional oil and gas reserves. Similar rules allowing offsite penetration points have been adopted in other fields, after notice to the mineral owners of the off-lease tract on which the penetration point is to be located and if no protest is received.

Allocation based on 75% acreage and 25% per well is appropriate, given that the Travis Peak interval is lenticular and heterogeneous. Additionally, Chevron requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well.

### **FINDINGS OF FACT**

1. Notice of this hearing was provided to all persons entitled to notice.
2. The Carthage (Travis Peak 6400) Field was discovered in March 1956 at an average depth of 6,400 feet. The field is an associated field with 7 producing oil wells and 14 producing gas wells and four operators carried on the proration schedules.
3. The Carthage (Travis Peak 6400) Field should be defined as the correlative interval from 6,546 feet to 8,463 feet as shown on the log of the Chevron U. S. A. Inc. - Mae Sealey Unit, Well No. 13. The interval includes the entire

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Travis Peak formation and is continuous across the area.

4. A spacing rule which utilizes “take-points” in a horizontal well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
  - a. The Travis Peak Formation is a tight formation and is not commercially productive unless fracture-stimulated.
  - b. A take-point in a horizontal well in this field may be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
  - c. Adoption of the proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 330 feet to a lease line, as long as no take-point is closer than 330 feet to any lease line.
  - d. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
5. Field Rules that provide for 330' lease line spacing, 500' vertical to vertical and horizontal to horizontal well spacing with no minimum spacing requirement between horizontal and vertical wells and special provisions for “take points” and an “off-lease” penetration point for horizontal wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
6. Allowing an off-lease penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. The proposed rule will allow approximately an additional 700 feet of producing drainhole. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of offsite surface locations.
7. For purposes of assignment of additional acreage pursuant to Statewide Rule 86, the distance between the first and last take-point in a horizontal well should be used.
8. Allocation based on 75% acres and 25% per well is a reasonable formula which will protect correlative rights of mineral owners in the field. Elimination of the requirement to file individual well proration unit plats will reduce

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unnecessary paperwork.

**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 Carthage (Travis Peak 6400) 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 Carthage (Travis Peak 6400) Field, as proposed by Chevron U. S. A. Inc.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner