

**THE APPLICATION OF VALENCE OPERATING COMPANY TO ADOPT FIELD RULES FOR THE OAK HILL (TRAVIS PEAK) FIELD, RUSK COUNTY, TEXAS**

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

**HEARING DATE:** June 21, 2011

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

Rick Johnston

Valence Operating Company

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Valence Operating Company ("Valence") requests that Field Rules for the Oak Hill (Travis Peak) Field be adopted. Valence proposes the following Field Rules:

1. Designation of the field as the correlative interval from 6,990 feet to 8,940 feet as shown on the log of the Valence Operating Company - Wallace Lease, Well No. 3 (API No. 42-401-35068);
2. 330'-600' well spacing, no minimum between well spacing between vertical and horizontal wells with special provisions for "take points", a 50 foot "box" rule and "off-lease" penetration point for horizontal drainhole wells;
3. Allocation based on 50% acres and 50% deliverability with AOF status;
4. Special provisions for "stacked laterals" in horizontal drainhole wells.

The application was unopposed and the examiner recommends that Field Rules for the Oak Hill (Travis Peak) Field be adopted, as proposed by Valence.

**DISCUSSION OF THE EVIDENCE**

The Oak Hill (Travis Peak) Field was discovered in April 1967 at an average depth of 7,400 feet. The field is classified as associated and operates under Statewide Rules. There are currently four producing oil wells, one producing gas well and eight operators carried on the proration schedules. The top oil allowable is the 1965 Yardstick Allowable

of 121 barrels of oil per day. Cumulative production from the field through March 2011 is 2.6 BCFG and 231.9 MBO.

There is currently no defined correlative interval for the field. Valence requests that the field be defined as the correlative interval from 6,990 feet to 8,940 feet as shown on the log of the Valence Operating Company - Wallace Lease, Well No. 3 (API No. 42-401-35068), W G Bayne Survey, A-96, Rusk County, Texas. This interval includes the entire Travis Peak formation.

Valence is proposing to drill horizontal wells and requests Field Rules to promote the efficient and effective development of the remaining hydrocarbons. Valence requests 330'-600' well spacing, no minimum between well spacing between vertical and horizontal wells with special provisions for "take points", a 50 foot "box" rule and "off-lease" penetration point for horizontal drainhole wells. Valence proposes that the density remain on Statewide Rules with 40 acre units.

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

Valence proposes a tolerance "box rule" for horizontal drainhole wells that would allow drainholes to deviate 50 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

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. Valence requests a Field Rule for the subject field to 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. The proposed rule would allow operators to drill horizontal wells with the penetration point, as defined by Rule 86, off of the lease, as long as no take-point is closer than 330' to the lease line. Valence proposes that an offsite

penetration point be allowed 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.

Valence also requests that a Field Rule be adopted to accommodate the drilling of stacked horizontal lateral wells. The gross thickness of the Travis Peak interval is almost 2,000 feet. Valence believes that several separate laterals may be necessary to effectively develop the reservoir with horizontal wells. The rule would allow stacked horizontal laterals within the Travis Peak correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes. It is proposed that a stacked lateral be defined to be multiple horizontal drainholes which are drilled from different surface locations.

Valence is in the early stages of development for the Oak Hill (Travis Peak) Field and believes it should be developed with similar Field Rules as the deeper Oak Hill (Cotton Valley) and Carthage (Haynesville Shale) Fields. Similar Field Rules for all three fields will eliminate any Statewide Rule 37 exceptions that might be required when commingling any of the different fields. To date, fifteen Statewide Rule 37 exceptions have been granted for various combinations of the fields.

To satisfy state statutes, Valence requests allocation based on 50% acres and 50% deliverability, since the Travis Peak interval is lenticular. Valence requests that the allocation formula remain suspended, as there is a 100% market demand for all of the gas produced from the field. Additionally, Valence 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 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 Oak Hill (Travis Peak) Field was discovered in April 1967 at an average depth of 7,400 feet.
  - a. The field is classified as associated and operates under Statewide Rules.
  - b. There are currently four producing oil wells, one producing gas well and eight operators carried on the proration schedules.
  - c. The top oil allowable is the 1965 Yardstick Allowable of 121 barrels of oil per day.
3. The Oak Hill (Travis Peak) Field should be defined as the correlative interval from 6,990 feet to 8,940 feet as shown on the log of the Valence Operating

Company - Wallace Lease, Well No. 3 (API No. 42-401-35068). This interval includes the entire Travis Peak formation.

4. The Oak Hill (Travis Peak) Field is actively being developed with horizontal drainhole wells.
5. Field Rules providing for 330'-600' well spacing, no minimum between well spacing between vertical and horizontal wells with special provisions for "take points", a 50 foot "box" rule, "off-lease" penetration point and "stacked laterals" for horizontal drainhole wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
6. 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.
  - e. 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.
7. The proposed 50 foot "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
8. 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 300 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.

9. The proposed “stacked lateral” rule will allow stacked horizontal laterals within the Travis Peak correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes, which will facilitate the additional recovery of gas.
10. Similar horizontal drainhole well rules have already been adopted in the deeper Oak Hill (Cotton Valley) and Carthage (Haynesville Shale) Fields.
11. Allocation based on 50% acres and 50% deliverability is a reasonable formula which will protect correlative rights of mineral owners in the field.
12. Continued suspension of the allocation formula is appropriate, as there is a 100% market demand for all 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. Adopting Field Rules for the Oak Hill (Travis Peak) 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 adopt Field Rules for the Oak Hill (Travis Peak) Field, as requested by Valence Operating Company.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner