



RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 01-0276980

**THE APPLICATION OF VIRTEX OPERATING COMPANY TO AMEND FIELD RULES
FOR THE DOERING RANCH (GEORGETOWN) FIELD, FRIO COUNTY, TEXAS**

HEARD BY: Brian Fancher, P.G. - Technical Examiner
Michael Crnich - Legal Examiner

DATE OF HEARING: July 20, 2012

APPEARANCES: **REPRESENTING:**

APPLICANT:

Dale Miller

VirTex Operating Company

EXAMINERS' REPORT AND RECOMMENDATION
STATEMENT OF THE CASE

The Doering Ranch (Georgetown) Field is currently governed by special field rules that provide the following:

1. Designated correlative interval;
2. 467'-1200' well spacing;
- 3a. 320-acre proration units for gas wells with 10% tolerance acreage and 40-acre optional units;
- 3b. 80-acre proration units for oil wells with 40-acre tolerance and 40-acre optional units;
4. Two-factor allocation formulas for oil and gas wells.

VirTex Operating Company, Inc. (“VirTex”) seeks to amend the above field rules for the subject field as follows:

1. No change;
2. No change;
3. No change to the current proration units for oil or gas wells. However, the following formula shall be utilized to determine allocation of additional acreage to horizontal oil wells:

$A = (L \times 0.11488) + 80$ acres, where A = acreage assignable, if available, to a horizontal drainhole for proration purposes rounded upward to the next whole number evenly divisible by 40 acres; and L is the length of the horizontal displacement in feet;

Additionally, the maximum diagonal for a horizontal drainhole shall be determined by the following formula:

Maximum diagonal = $475.933 \times \sqrt{A}$;

4. No change.

The application was unopposed and the examiners recommend the amended rules for the subject field be approved, as requested by VirTex.

DISCUSSION OF THE EVIDENCE

The Doering Ranch (Georgetown) Field was discovered in 1976, and after consolidation with the Doering Ranch (Buda) and Calvert (Buda) Fields, has 30 active gas wells and 5 active oil wells on the July 2012 proration schedules. VirTex is the only operator in the field and cumulative production from all the wells is estimated at 12.6 billion cubic feet of gas (“BCFG”) and 275.3 thousand barrels of oil (“MBO”). VirTex testified it has drilled ten new horizontal oil wells which are not yet on the current oil proration schedule.

The subject field contains both the Georgetown and Buda formation. The average porosity in the Georgetown formation is 9% and water saturation is 60%. The net effective pay in the Georgetown formation is 30’ and original reservoir pressure was 2707 psia. The average porosity in the Buda formation is 6% and water saturation is 40%. The net effective pay in the Buda formation is 49’ and original reservoir pressure was estimated at 2,680 psia.

Virtex testified the recovery factors oil and gas wells are approximately 15% and 80%, respectively. VirTex testified that volumetric calculations indicate there are approximately 240,690 barrels of recoverable oil for vertical wells in the subject field.

Virtex testified that vertical oil wells, completed in the subject field, are capable of draining 80 acres. VirTex further testified the lateral length of the ten new (2011-2012) horizontal oil wells averages 4,541 feet and that they are capable of draining more than 80 acres throughout the length of the lateral. For example, the McWilliams Heirs A #1H has produced 45,534 BO in two months, which is equal to half of the recoverable for an 80-acre vertical well. Cumulative production from the ten new horizontal oil wells is currently 273.4 MBO.

VirTex testified it plans to drill horizontal wells in this field. Virtex testified it seeks an exception to Statewide Rule 86 for the allocation of additional acreage to horizontal wells. Virtex testified it seeks to include a formula in the field rules for the subject field so that the maximum number of acres assignable to a horizontal well shall be based on a formula where:

$$A = (L \times 0.11488) + 80 \text{ acres}$$

Beyond that, VirTex testified that Statewide Rule 86, which governs allocation of acreage to horizontal wellbores, essentially provides a comparable formula as follows:

$$A = (L \times 0.04837) + 80 \text{ acres}$$

VirTex testified that the acreage assignable to a well with a horizontal lateral of 4541' would be 640 acres under the proposed formula. The acreage assignable to such a well would be only 320 acres under Statewide Rule 86. The average acreage for known communication between drilling horizontal wells is 1,080 acres, indicating that the Statewide Rule 86 would not allow the assignment of sufficient acreage to reflect the actual drainage capability of the 10 new oil wells in the subject field.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the Doering Ranch (Georgetown) Field on June 29, 2012.
2. The Doering Ranch (Georgetown) Field was discovered in 1976 and the Doering Ranch (Buda) and Calvert (Buda) Fields were consolidated into the Doering Ranch (Georgetown) Field in 2009.
3. The proration schedules show VirTex Operating Company ("VirTex") is the only operator of the 30 active gas wells and 5 active oil wells on the July 2012 proration schedules.

4. Cumulative production from the wells in the field is 12,628,782 thousand cubic feet of gas and 275,334 barrels of oil.
5. VirTex has drilled ten new (2011-2012) horizontal oil wells which are not yet on the proration schedule.
 - a. These new wells have an average lateral length of 4541 feet and appear very productive with initial potentials ranging from 291 BOPD to 738 BOPD.
 - b. Cumulative production from the ten new horizontal oil wells is 273,457 BO and one of these wells produced 45,534 BO in only two months.
8. Acreage assignment based on the formula $A = (L \times 0.11488) + 80$ acres is an exception to 16 TAC §3.86 and is appropriate for the Doering Ranch (Georgetown) 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. Adopting the proposed rules for the Doering Ranch (Georgetown) Field will prevent waste, protect correlative rights and promote development of the field.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the field rules proposed for the Doering Ranch (Georgetown) Field be amended, as requested by VirTex.

Respectfully submitted,



Brian Fancher, P.G.
Technical Examiner



Michael Crnich
Legal Examiner