



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 8A-0288127

THE APPLICATION OF GUNN OIL COMPANY TO AMEND FIELD RULES FOR THE VCG (CONGL.) FIELD, COTTLE COUNTY, TEXAS

Heard by: Paul Dubois – Technical Examiner
Michael Crnich – Hearings Examiner

Heard on: April 28, 2014

Appearances:

Doug Dashiell
Terry Caves
John Berryhill

Representing:

Gunn Oil Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

This is the application of Gunn Oil Company (Gunn) to amend field rules for the VCG (Congl.) Field in Cottle County, Texas. Gunn requests changes to Field Rule Nos. 2 and 3 pertaining to well spacing and density. No changes to Rule Nos. 1 and 4 are requested. There were no protests to this application and the examiner recommends approval of the new field designation and temporary field rules.

The notice of hearing incorrectly stated the field name as "VCG (Consolidated)." As Gunn is the only operator in the field, re-notice was not warranted.

DISCUSSION OF EVIDENCE

Field rules for the VCG (Congl.) Field have been in place since May 29, 2008 (Final Order Docket No. 8A-0255894). These field rules were established as temporary rules and were never formally made permanent or expired; they are still the operative field rules for the field and include the following:

- Rule 1: The entire correlative interval between 9,268 feet and 11,335 feet, as shown on the log of the Martin 3 Lease, Well No. 1 (API No. 101-30676), IRR CO Survey, A-369, Cottle County, shall be designated as a single reservoir for proration purposes and be designated as the VCG (Congl.) Field;
- Rule 2: 467 feet lease line spacing and 1,200 feet between well spacing;
- Rule 3: 320 acre drilling and proration units with a 10 percent tolerance provision; and
- Rule 4: A two-factor allocation formula based on 5 percent per well and 95 percent deliverability.

Gunn proposes the following changes to Field Rule Nos. 2 and 3:

- Rule 2: Reduce spacing requirements to 330 feet lease line spacing and 660 feet between well spacing;
- Rule 3: Provide for 40 acre optional drilling and proration units.

The VCG (Congl.) Field was discovered in January 2008. The field is a non-associated gas field. The reservoir includes multiple lenticular accumulations of gas in the Bend Conglomerate matrix trapped by structural and stratigraphic features. The conglomerate matrix contains interbedded sand zones containing hydrocarbons. The reservoir has a gas depletion drive mechanism. The field has produced 3.159 BCF gas and currently averages 1.689 MMCF/D. The 2,067-foot correlative interval includes multiple pay zones. The current gas proration schedule carries five (5) producing wells, all of which are operated by Gunn. Gunn is currently drilling on its Rochelle Lease, and will soon begin drilling on its Saddlehorn Lease. Further development is planned.

Gunn's Koegler No. 1 well was completed on July 12, 2011, with 12 perforated and fracture stimulated intervals. The well is about 2 miles south of the discovery well and type log for the field. The well log of the Koegler No. 1 well identified 21 discrete pay zones ranging in thickness from 4 to 45 feet. The 12 perforated and stimulated intervals included these 21 pay zones. On April 11, 2012 the well was tested and in 24 hours produced 1.743 MMCF/D gas, 12.64 bbl condensate and 300 bbl water. Its current production rate is 1.016 MMCF/D gas. Decline curve analysis of the well indicates the well will require 44 years to produce its estimated ultimate recovery of 5.599 BCF gas. Gunn estimates that this well will only drain 40 acres of reservoir area with a total pay thickness of 241 feet.

Because the Koegler No. 1 well will only drain 40 acres, Gunn requests a corresponding optional unit size. Additionally, Gunn requests the reduced spacing because the wells in the field exhibit elliptical drainage patterns after fracture stimulation.

The reduced well spacing requirements will allow Gunn to locate its wells for more efficient drainage, reducing waste and protecting correlative rights.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. The reservoir includes multiple lenticular accumulations of gas in the Bend Conglomerate matrix trapped by structural and stratigraphic features.
3. Current field rules were adopted in 2008 (Docket No. 8A-0255894) as temporary rules and remain in effect. These include:
 - a. A correlative interval between 9,268 feet and 11,335 feet;
 - b. 467 feet lease line spacing and 1,200 feet between well spacing;
 - c. 320 acre drilling and proration units with a 10 percent tolerance provision; and
 - d. A two-factor allocation formula based on 5 percent per well and 95 percent deliverability.
4. The field has produced 3.159 BCF gas and currently averages 1.689 MMCF/D.
5. The well log of Gunn's Koegler No. 1 well identified 21 discrete pay zones ranging in thickness from 4 to 45 feet, and a total pay thickness of 241 feet
6. Decline curve analysis of the well indicates the well will require 44 years to produce its estimated ultimate recovery of 5.599 BCF gas.
7. Gunn's Koegler No. 1 well will only drain 40 acres of reservoir area with a total pay thickness of 241 feet.
8. Gunn Oil requests well density of 320 acres and well spacing of 467 feet from lease line and 1,200 feet between wells. Other fields in the area that produce from the same zones have similar rules. The non standard well spacing is necessary to place wells between minor faults.
9. Allocation based on 95% deliverability and 5% per well will protect correlative rights and meets statutory requirements for combining multiple productive zones into a single 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. The requested field rules will prevent waste, protect correlative rights and promote the orderly development of the field.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends amending the field rules for the VCG (Congl.) Field as requested by Gunn Oil Company.

Respectfully submitted,



Paul Dubois
Technical Examiner


Michael Crnich *by permission*
Hearings Examiner