THE APPLICATION OF GUNN OIL COMPANY TO CONSIDER NEW FIELD DESIGNATION AND TEMPORARY FIELD RULES FOR THE (PROPOSED) VCG (CONGL.) FIELD, COTTLE COUNTY, TEXAS

**Heard by:** Andres J. Trevino, P.E. on March 26, 2008

Appearances: Representing:

Doug Dashiell
William C. Stephens
Ben H. Ralston

Gunn Oil Company

## EXAMINER'S REPORT AND RECOMMENDATION

# **STATEMENT OF THE CASE**

Gunn Oil Company requests that a new field designation called the VCG (Congl.) Field be approved for its Martin 3 Well No. 1. Gunn Oil also requests that the following temporary rules be adopted for the VCG (Congl.) Field:

- 1. Designation of the field as the correlative interval from 9,268 feet and 11,335 feet, as shown on the log of the Martin 3 Lease, Well No. 1;
- 2. 467' 1,200' well spacing;
- 3. 320 acre proration units with 10% tolerance for the last well on a lease and a maximum diagonal of 6,500 feet;
- 4. Allocation based on 95% deliverability and 5% per well.

There were no protests to this application and the examiner recommends approval of the new field designation and temporary field rules.

### **DISCUSSION OF EVIDENCE**

Gunn Oil Company completed its Martin 3 Well No. 1 in January 2008. The well has twelve sets of perforations in the Bend Conglomerate Sand series between 9,605 feet and 11,318 feet. On initial test, the well produced at a rate of 642 MCFD, 6 BCPD and 330 BWPD with a flowing tubing pressure of 560 psi. The well's production has been interrupted

due to problems associated to mechanical breakdowns of the compressor.

The new field designation should be approved for the Martin 3 Well No. 1. The nearest comparable production is approximately 0.8 miles to the northwest in the Boyles (Atoka Congl.) Field. There are other wells within the 2½ mile radius of the well which produce from the proposed correlative interval however they are all separated by sealing faults. Additionally the Martin 3 Well No. 1 encountered virgin reservoir pressure of 3,067 psig.

Gunn Oil requests that the entire correlative interval between 9,268 feet and 11,335 feet in the Martin 3 Well No. 1 be considered a single field. This interval includes numerous sand and shale sequences all within the Bend Conglomerate Formation. The Bend Conglomerate interval includes the UB7 (a continuous sand which is easily correlated through out the area), numerous sands (difficult to correlate throughout the area) and the Lower Bend Formations. Producing individual sands would not be economic as the sands are tight and require large fracture stimulations to produce. The Precambrian is found at the base of the proposed interval at 11,335 feet in this well. Separate completions in the intervals would not be commercial.

Gunn Oil requests well density of 320 acres and well spacing of 467 feet from lease line and 1,200 feet between wells. Gunn needs the 467 feet from lease line and 1,200 feet between wells to allow flexibility in placing the wells between suspected minor faults to minimize deviated hole drilling problems. Wells drilled in this area are drilled with rotary steering tools as steep formation dip angles and small faults cause the wells to want to deviate from vertical.

Other fields in the area that produce from the same zones have similar rules. The Broken Bone (Congl.) Field is located 0.8 miles to the east, produces from the Bend Conglomerate formation, initially had 320 acre density and was reduced to 40 acre density and 330/660 foot well spacing. The Boyles (Atoka Congl.) Field is located 0.8 miles to the north, produces from the Bend Conglomerate formation, has 160 acre density and 660/1,320 foot well spacing. The Broken Bone (Congl.) Field is believed to be highly faulted and compartmentalized requiring 40 acre density to recover the gas. The VCG (Congl.) Field is believed not to be as highly faulted and compartmentalized as the Broken Bone (Congl.) Field therefore Gunn oil requests the initial 320 acre density. Additionally, when the Martin 3 Well No. 1 was fractured stimulated, fracture analysis indicted a significant boundary was not found at the fracture half length of 1,350 feet indicating the area around the well is not as highly faulted as fields to the north and east.

State statutes require that a two factor allocation formula be adopted for the proposed field designation to be considered a single field. Gunn Oil requests that allocation be based on 95% deliverability and 5% per well for the field. Because the productive interval is composed of numerous thin sands and the reservoir is moderately faulted with minor faults, acreage should not be considered part of the allocation formula at this time. Consequently, adoption of these special field rules on a temporary basis for a period of 18

months is appropriate in order to provide a sufficient period of production in order to make an informed review of the effectiveness of these temporary field rules.

## 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. Gunn Oil Company completed its Martin 3 Well No. 1 in January 2008 with twelve sets of perforations in the Bend Conglomerate Sand series from 9,605 feet and 11,318 feet. On initial test, the well produced at a rate of 642 MCFD, 6 BCPD and 330 BWPD.
- 4. The Martin 3 Well No. 1 is entitled to a new field designation because there is no comparable production within a 2½ mile radius of the subject well which is not fault isolated.
- The entire correlative interval from 9,268 feet to 11,335 feet as shown on the Computer Processed Log of the Martin 3 Well No. 1 should be designated as the VCG (Congl.) Field.
- 6. The VCG (Congl.) Field area is isolated from other fields by major faults. Drilling evidence indicates minor faults are present in the VCG (Congl.) Field area.
- 7. 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.
- 8. 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. Approval of the requested new field designation and adoption of temporary special field rules for a period of 18 months will prevent waste, protect correlative rights and promote the orderly development of the field.

#### RECOMMENDATION

# OIL AND GAS DOCKET NO. 8A-0255894

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Based on the above findings and conclusions of law, the examiner recommends approval of the new field designation and adoption of temporary special field rules for a period of 18 months for the VCG (Congl.) Field.

Respectfully submitted,

Andres J. Trevino, P.E. Technical Examiner