# THE APPLICATION OF MANHATTAN PETROLEUM, INC. TO AMEND THE FIELD RULES FOR THE BROWNFIELD, SOUTH (CANYON) FIELD, TERRY COUNTY, TEXAS

**Heard by:** Donna K. Chandler on September 8, 2006

Appearances: Representing:

Matthew Baab Edward Pittinger Manhattan Petroleum, Inc.

# EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

Field rules adopted in 1951 for the Brownfield, South (Canyon) Field are summarized as follows:

- 1. 500'-1,200' well spacing;
- 2. 40 acre oil units with 20 acre tolerance:
- 3. Allocation based on 75% acreage and 25% per well;
- 4. 1,000 cubic feet/barrel gas-oil ratio.

Manhattan Petroleum, Inc. requests that the rules be amended as follows:

- 1. 330'-0' well spacing;
- 2. 40 acre units with optional 20 acre oil units;
- 3. No change;
- 4. No change.

This application was unprotested and the examiner recommends approval of the amendments to the field rules for the Brownfield, South (Canyon) Field as requested by Manhattan Petroleum, Inc.

## **DISCUSSION OF THE EVIDENCE**

The Brownfield, South (Canyon) Field was discovered in 1950 at a depth of approximately 9,300 feet. A total of eighteen wells have been completed in the field, 14 of which have been plugged and abandoned. The three active wells in the field are all operated by Manhattan Petroleum, Inc.

Current field production is 45 BOPD, 45 MCFD and 28 BWPD. Cumulative production from the field is 5,277,000 BO. Manhattan plans to eventually initiate a waterflood to recover secondary reserves.

Recent seismic indicates the presence of three separate domes in the field, the westernmost which hasn't been produced until recently when Manhattan completed a new well on that dome. Manhattan plans to drill six more wells in the field prior to initiating the waterflood. Three wells are proposed on the westernmost dome, two on the center dome, and one on the easternmost dome. The locations are proposed at optimum locations on each dome to be substantially above the oil-water contact at 6,875 feet subset. All of the proposed locations will be less than 1,200 feet from existing wells and would require Rule 37 exceptions under the current rules. Manhattan requests that no between-well spacing limitation apply in this field.

Manhattan estimates that original oil-in-place in the western dome is about 1 million BO. The dome covers approximately 111 acres. The estimated ultimate recovery from the only well on the western dome, the SB-A No. 9101, is only about 8,000 BO. Denser drilling than 40 acres per well is necessary to recover the reserves from that structure.

#### FINDINGS OF FACT

- 1. Notice of this hearing was given to all persons entitled to notice and there were no protests.
- 2. The Brownfield, South (Canyon) Field was discovered in 1950 at a depth of approximately 9,300 feet.
- 3. A total of eighteen wells have been completed in the field, but there are only three active wells in the field. All active wells are operated by Manhattan Petroleum, Inc.
- 4. Recent seismic indicates the presence of three separate domes in the field. Manhattan just completed the first well on the westernmost dome.
- 5. Spacing a minimum of 330 feet from lease lines with no between-well spacing limitation will provide flexibility in locating wells at optimal locations based on seismic data.

- a. Manhattan plans to drill six more wells in the field prior to initiating the waterflood.
- b. The locations of the proposed wells are proposed at locations on each dome to be substantially above the oil-water contact at 6,875 feet subset.
- c. All of the proposed locations will be less than 1,200 feet from existing wells and would require Rule 37 exceptions under the current rules.
- 6. Development under the current 40 acre density rule is not sufficient to drain the reservoir. An optional 20 acre density rule is necessary to deplete the western dome.

## **CONCLUSIONS OF LAW**

- 1. Proper notice of this hearing was given to all persons legally entitled to notice.
- 2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
- 3. Amending the field rules for the Brownfield, South (Canyon) Field is necessary to prevent waste, protect correlative rights, and promote orderly development of the field.

#### **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the field rules for the Brownfield, South (Canyon) Field be amended to provide for 330'-0' well spacing and 20 acre density.

Respectfully submitted,

Donna K. Chandler Technical Hearings Examiner