# THE APPLICATION OF TAMARACK PETROLEUM COMPANY TO AMEND FIELD RULES FOR THE LEE HARRISON FIELD, LUBBOCK COUNTY, TEXAS

**Heard by:** Andres J. Trevino, P.E., Technical Examiner

Hearing Date: November 4, 2008

Appearances: Representing:

Philip Whitworth Alan Erb Bob Liem Tamarack Petroleum Company

## **EXAMINER'S REPORT AND RECOMMENDATION**

## STATEMENT OF THE CASE

This is the unprotested application of Tamarack Petroleum Company to amend the field rules as adopted in Oil and Gas Docket No. 8-35,459, issued effective May 6, 1957, for the Lee Harrison Field that currently provide for the following:

- 1. 330'-933' well spacing;
- 2. 40 acre oil units with 20 acre tolerance;
- 3. Allocation based on 50% acreage, 50% per well.

Tamarack Petroleum Company requests that field rules be adopted as follows:

- 1. Designation of the field as the correlative interval from 4,600 feet to 5,162 feet as shown on the log of the Tamarack Petroleum Company's West Lee Harrison Unit No. 36:
- 2. 330'-660' well spacing;
- 3. 40 acre density, optional 20 acre units;
- 4. Allocation based on 50% acreage, 50% per well (no change).

This application was unprotested and the examiner recommends that the field rules for the Lee Harrison Field be amended as requested.

#### **DISCUSSION OF EVIDENCE**

The Lee Harrison Field was discovered in 1941 at a depth of approximately 4,870 feet. Cumulative production from the field is approximately 17,370,435 BO. Currently there are 116 active oil wells and numerous water injection wells in the field. There are eight other operators in the field.

The Lee Harrison Field is a waterflooded oil field producing from the Clearfork formation. Tamarack operates the West Lee Harrison Unit which contains 920 acres, 21 producing oil wells and 11 injection wells. The West Lee Harrison Unit was formed and waterflooded in 1972. Tamarack has drilled ten infill wells throughout the Unit and has produced substantial quantities of oil from those wells. Production decline curve analysis indicates that five of the ten infill wells will have an average estimated ultimate recovery of 146.2 MBO. Tamarack believes the undrained oil is being produced from lenticular, discontinuous porosity lenses that exist within the Clearfork interval. Individual productive zones do not correlate from well to well. Tamarack does not believe the existing wells are draining 40 acres as the new wells located nearby are producing at rates and quantities similar to "virgin" wells. Tamarack estimates it will recover an additional 1.34 MMBO by drilling an additional nine wells.

Tamarack requests an optional 20 acre density and 660' between well spacing for the Lee Harrison Field so that it can place wells in optimum locations between existing producing and injection wells to efficiently produce the remaining hydrocarbons.

## 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.
- Special field rules for the Lee Harrison Field were adopted in Oil and Gas Docket No. 8-35,459, issued effective May 6, 1957, provide for 330'-933' well spacing, 40 acre oil units and allocation based on 50% acreage, 50% per well.
- 3. The Lee Harrison Field was discovered in 1941 and cumulative production from the field is approximately 17,370,435 BO as of September 30, 2008.
- 4. Tamarack operates the West Lee Harrison Unit which contains 920 acres, 21 producing oil wells and 11 injection wells. The Unit is nearly developed to the current field density of 40 acres per well.
- 5. Tamarack has drilled ten infill wells throughout the Unit and has produced substantial quantities of oil from those wells.
- 6. The Lee Harrison Field produces from the Clearfork Dolomite, which contains

lenticular, discontinuous porosity intervals.

- 7. Tamarack estimates it will recover an additional 1.34 MMBO by drilling an additional nine wells.
- 8. Development of the field on 20 acre density will allow the flexible placement of well locations between existing wells to maximize recovery from the field.
- 9. The proposed 660' between well spacing will accommodate development on 20 acres.

# **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 Lee Harrison Field is necessary to prevent waste and protect correlative rights.

# **RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that field rules for the Lee Harrison Field be amended to provide for a correlative interval, optional 20 acre density and 660' between well spacing.

Respectfully submitted,

Andres J. Trevino, P.E. Technical Examiner