RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

October 15, 2007

OIL & GAS DOCKET NO. 7C-0252363

APPLICATION OF TERRACE PETROLEUM CORPORATION TO CONSIDER AN MER FOR THE RAILWAY RANCH "18" LEASE WELL NO. 1 IN THE SPRABERRY (TREND AREA) FIELD, UPTON COUNTY, TEXAS

HEARD BY: Thomas H. Richter, P.E.
DATE OF HEARING: August 9, 2007

APPEARANCES:	**REPRESENTING:**
Dale E. Miller	Terrace Petroleum Corp.

EXAMINER'S REPORT AND RECOMMENDATION
STATEMENT OF THE CASE

This is the unprotested application of Terrace Petroleum Corp. for Commission consideration for MER authority of 700 BOPD for the Railway Ranch "18" Lease Well No. 1 in the Spraberry (Trend Area) Field. It is also proposed that all accrued production in excess of the assigned allowable for the lease be canceled effective the date of the Order if this application is approved by the Commission. At the hearing, it was proposed that the MER be available and apply to any well ever completed on the lease. The examiner stated that it is premature for such an order based on the data from only one well. Further, subsequent to the hearing it was discovered that the subject well was being produced though casing and not tubing as required by Statewide Rule 13(b)(5)(A). Consequently, further consideration of the hearing was suspended awaiting action by the Commission's Field Operation's Section. On October 12, 2007, the examiner was advised verbally by Field Operations that the exception is approved. The examiner recommends approval of the application.

DISCUSSION OF THE EVIDENCE

The Spraberry (Trend Area) Field was discovered in 1952 at approximately 6,785' subsurface depth. The top allowable for a well in the field is 121 BOPD and the casinghead gas limit is governed by a gas-oil ratio of 4,000:1. Special field rules provide for base 80 acres and optional 160 acre density. This is a very large multi-operator multi-well field (in excess if 4,500 wells).

The Terrace Petroleum, Railway Ranch "18" Lease Well No. 1 was completed March 10, 2007 through several sets of perforations from 7,759' to 10,508' subsurface depth. The perforated

interval includes the Upper and Lower Spraberry, Wolfcamp and Dean Formations. The well potentialed at 608 BOPD, 513 MCFD and 64 BWPD. The GOR (gas-oil ratio) was 844:1 and flowing on a 14/64ths choke. The oil gravity is 42.5 °API. The initial flowing casing pressure was 600 psig. The well is not equipped with tubing and is thus flowing up 5-1/2" production casing. The well was fracture stimulated in 7 stages using over 800,000 # sand and over a million gallons HCL acid and X-Link gel. Cumulative production for the well is 74,500 BO and 72.4 MMCF of casinghead gas.

An MER of up to 700 BOPD is appropriate and will not result in the loss of otherwise recoverable reserves. The subject well was tested over a 30-day period with the following results:

OIL BPD	WATER BPD	GAS MCFD	TBG PSIG	GOR CF/BO	CHOKE 64 ths
570	22	580	420	1018	24
400	9	525	300	1300	18
435	10	516	285	1180	20
470	13	515	280	1099	21
507	20	545	300	1076	23
530	25	630	360	1204	24
590	25	688	350	1165	24

The well is fluid rate sensitive. The well had been initially flowing stable on a 24/64ths choke. For testing purposes, the well was tested commencing with attempting to obtain the top allowable restriction of 121 BOPD using a 18/64ths choke. During the 5 day period the flowing tubing pressure (FTP) continued to decline and upon reaching 290 psi, the choke was opened to 20/64ths. The FTP continued to decline to 280 psi. The choke was increased to 23/64ths and the FTP increased to 320 psi on the fifth day. The choke was increased to the pre-test setting of 24/64ths and remained there for 6 days. Though FTP initially increased to 370 psi, it then decreased to 330 psi. The choke was increased to 25/64ths and the pressure stabilized at 350 psi. The original FTP was never again obtained. The proposed 700 BOPD is necessary for those potential times that will occur where the well will have to be opened for wellbore fluid unloading.

It is proposed that all accrued oil production in excess of the assigned allowable be canceled.

EXAMINER'S OPINION

The subject well does indicate that it is rate sensitive as it is presently completed. The loading problem is not due to water production. The loading problem is due to lack of wellbore fluid velocity to unload the 5-1/2" casing. The problem could be significantly mitigated by installation of a tubing string (2-3/8" or 2-7/8"). The applicant stated that at the time of completion, after the fracture stimulation, that installation of a tubing string did not appear prudent as the resulting production volume was totally unexpected. To run a tubing string would have meant killing the

well. As the testing shows, even small production restrictions have resulted in the well not obtaining the original flowing conditions. Terrace stated that upon cessation of the well being capable of unloading through the casing, tubing would be installed (possible artificial lift equipment also).

An MER of up to 700 BOPD will not result in the loss of otherwise recoverable reserves. The gas-oil ratio and the water-oil ratio are not relatively rate sensitive. Thus, it is apparent that only the liquid velocity up the wellbore is the issue. The velocity issue in a flowing well during initial primary recovery operations where solution gas and/or water is not a definitive factor will not result in the waste of reservoir energy i.e. excessive production of solution gas.

FINDINGS OF FACT

1. Notice of this application was given to all persons entitled to notice at least ten (10) days prior to the hearing.

2. There was no protest of the application.

3. The Spraberry (Trend Area) Field was discovered in 1952 at approximately 6,785' subsurface depth. The top allowable for a well in the field is 121 BOPD and the casinghead gas limit is governed by a gas-oil ratio of 4,000:1.

4. The Terrace Petroleum, Railway Ranch "18" Lease Well No. 1 was completed March 10, 2007 through several sets of perforations from 7,759' to 10,508' subsurface depth.

    a. The perforated interval includes the Upper and Lower Spraberry, Wolfcamp and Dean Formations.

    b. The well potentialed at 608 BOPD, 513 MCFD and 64 BWPD.

    c. The well is not equipped with tubing and is thus flowing up 5-1/2" production casing.

5. An MER of 700 BOPD will not cause the waste of reservoir energy and will not result in the loss of hydrocarbon reserves.

    a. The gas-oil ratio and the water-oil ratio are not relatively rate sensitive.

    b. The well is fluid rate sensitive as the liquid volume velocity up the wellbore is the issue.

    c. The velocity issue in a flowing well during initial primary recovery operations where solution gas and/or water is not a definitive factor will not result in the waste of reservoir energy i.e. excessive production of solution gas.

6. Canceling the overproduction for the Railway Ranch "18" Lease (16195) will not harm correlative rights.

CONCLUSIONS OF LAW

1. Notice of this hearing was provided in accordance with all applicable regulatory statutes and rules.

2. All things have occurred or been accomplished to afford the Commission the jurisdiction to consider and decide this matter.

3. Consideration and approval of this application for an MER is a matter properly within the jurisdiction of the Commission to foster conservation and prevent waste.

4. Approval of the proposed application of will foster conservation and will not cause waste.

5. Cancellation of all accrued oil production in excess of the assigned allowable will not harm correlative rights.

EXAMINER'S RECOMMENDATION

It is recommended that the application of Terrace Petroleum Corp. for Commission consideration for MER authority of 700 BOPD for the Railway Ranch "18" Lease Well No. 1 in the Spraberry (Trend Area) Field be approved. It is further recommended that all accrued oil production in excess of the assigned allowable for the Railway Ranch "18" Lease (16195) be canceled.

Respectfully submitted,

Thomas H. Richter, P.E.
Technical Examiner
Office of General Counsel