RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 10-0285046

THE APPLICATION OF TEXAKOMA E&P, LLC,TO CONSIDER A MAXIMUM EFFICIENT RATE ALLOWABLE FOR THE CROSBY 8 LEASE IN THE ST. CLAIR (GRANITE WASH) FIELD, ROBERTS COUNTY, TEXAS

HEARD BY: Paul Dubois – Technical Examiner
Terry Johnson – Legal Examiner

DATE OF HEARING: November 22, 2013

APPEARANCES:	**REPRESENTING:**
APPLICANT:	
Dale Miller	Texakoma E&P, LLC

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Texakoma E&P, LLC (Texakoma), is requesting that a maximum efficient rate (MER) allowable of 300 BOPD be established for all wells in its Crosby 8 Lease, St. Clair (Granite Wash) Field, in Roberts County, Texas. Texakoma is also requesting that all overproduction for wells on the lease be cancelled. The application was not protested, and the examiners recommend it be approved.

DISCUSSION OF EVIDENCE

Texakoma is developing its Crosby 8 lease (and other leases) in the St. Clair (Granite Wash) Field in Roberts County, Texas. The St. Clair (Granite Wash) Field was discovered in 1976. The correlative interval is 7,800 feet to 10,448 feet. The current oil proration schedule carries producing 34 wells. The current gas proration schedule for the associated gas field carries 105 producing wells. An MER allowable of 180 BOPD was established for all oil wells in the field, along with a daily gas limit of 1,500 MCFPD. The gas wells in the field may produce at 100% absolute open flow. There are 12 operators of oil and/or gas wells in the field. Texakoma operates 19 oil wells and four gas wells. A

presumably related company, Texakoma Operating, L.P., operates 15 additional gas wells.

Texakoma operates three oil wells in the subject Crosby 8 lease. Completion and production details for these three wells are summarized below:

- Crosby 8 Well No. 4
  - Originally planned as a horizontal well, it was completed as a vertical well in March 2011 due to technical difficulties.
  - The well is perforated from 7,600 to 7,873 feet.
  - The well initially produced 506 BOPD and currently produces 17 BOPD.

- Crosby 8 Well No. 2
  - Completed in March 2011.
  - Originally perforated from 9,244 to 9,650, the well produced 23 BOPD.
  - Recompleted in April 2012 with perforations from 8,588 to 8,684, the well initially produced 481 BOPD and current production is now about 174 BOPD.

- Crosby 8 Well No. 3
  - Completed in June 2011.
  - Originally perforated from 9,548 to 9,956, the well produced 77 BOPD.
  - Recompleted in November 2011 with perforations from 7,646 to 7,925, the well initially produced 688 BOPD and current production is now about 250 BOPD.

Texakoma tested Well No. 3 for this MER allowable application. Texakoma believes it has produced the prolific No. 3 well very conservatively since the recompleted production began in November 2011. This includes producing on a 16/64ths or 17/64ths choke. The well has a cumulative production of about 230,000 BO, 200,000 MCF gas and 10,000 BW. The No. 3 well apparently taps into a subsurface oil-bearing facture system that was not accessed by the other two wells on the lease. This system appears to be connected to a fourth well (a horizontal well) drilled by Texakoma about one-quarter mile to the east. A loss of 53,000 barrels of drilling fluid was experienced, and correlating water influx into the No. 3 well and other adjacent wells was observed.

The No. 3 well was tested from October 21, 2013 through November 19, 2013 to evaluate the well's response to varying choke sizes. Prior to the test the well produced on a 17/64ths choke an average of 240 BOPD with a water cut of 2%, an average gas-to-oil (GOR) ratio of 2,199 SCF/BBL and a flowing tubing pressure (FTP) of 420 to 470 psig. As the choke was increased to 20/64ths, average oil production increased to 251 BOPD and there was no significant change in GOR beyond a slight decrease to 2,154 SCF/BBL. Tubing pressure decreased to about 350 psig. Continued testing on a 24/64ths choke showed an increase in oil production to 263 BOPD, no significant change to the GOR (it increased slightly to 2,252 psig) and the tubing pressure decreased to about 250 psig.

On November 5, 2013, the choke was restricted to 16/64ths as Texakoma attempted to produce the well at the field-wide MER of 180 BOPD. Inconsistent with expectations, the GOR decreased to 1,660 SCF/BBL. The tubing pressure initially increased to 470 psig, but then decreased to 250. Texakoma notes that November 5th was the day that the adjacent well experienced a loss of drilling fluid, and believes that the connected fracture system between the two wells resulted in the observed decreases in GOR and FTP as water filled void spaces in the fractures. On November 9, 2013, the choke was increased to 20/64ths. The well began to produce significantly more water, from an initial watercut average of 2 percent to as much as 30 percent four days after the fluid loss in the adjacent well was observed. Water production has since declined to about 7 percent, and is expected to continue to decline.

Texakoma believes that the results of the testing demonstrate that the well produced efficiently at average rates of 263 BOPD. The GOR was stable, and FTP responses were as expected. The well produces from a solution-gas drive reservoir, and evidence of the formation of a secondary gas cap has been observed. The well produces within the adopted field-wide daily gas limit of 1,500 MCFPD. No changes to the daily gas limit are needed. The well has produced with a very smooth decline rate and has been produced conservatively over time. Texakoma intends to continue to produce the well in this manner, and that producing with a MER allowable of 300 BOPD is optimal for overal recovery of reserves from the well.

Texakoma also noted that the field-wide MER established by the Commission on July 6, 2006 (Docket No. 10-0247091) was not properly applied to all oil wells in the field, resulting in significant overproduction and compliance notices issued by the Commission. This was brought to the attention of Commission well compliance staff and the issue resolved. Texakoma believes that the lease still carries an overproduction of about 6,703 BOPD. A lease-wide MER allowable of 300 BOPD and cancellation of overproduction will allow Texakoma to continue to conservatively produce the lease, preventing waste and protecting its correlative rights.

FINDINGS OF FACT

1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of hearing.

2. Texakoma is developing its Crosby 8 lease in the St. Clair (Granite Wash) Field in Roberts County, Texas.

3. The St. Clair (Granite Wash) Field was discovered in 1976.

   a. The correlative interval is 7,800 feet to 10,448 feet.

b. The current oil proration schedule carries producing 34 wells.

c. The current gas proration schedule carries 105 producing wells.

d. An MER allowable of 180 BOPD was established for all oil wells in the field.

e. A daily gas limit of 1,500 MCFPD was established for all oil wells in the field.

4. Texakoma has completed three wells in the St. Clair (Granite Wash) Field on the lease, which have demonstrated initial potential rates of 481 to 688 BOPD after completion or recompletion.

5. The Crosby 8 Well No. 3 was tested for this application, and the results indicate the following:

a. The well produced efficiently at average rates of 263 BOPD.

b. The GOR was stable, and FTP responses were as expected.

c. The well produces from a solution-gas drive reservoir, and evidence of the formation of a secondary gas cap has been observed.

d. The well produces within the adopted field-wide daily gas limit of 1,500 MCFPD.

6. A lease-wide MER allowable of 300 BOPD and cancellation of overproduction will allow Texakoma to continue to conservatively produce the lease, preventing waste and protecting its correlative rights.

CONCLUSIONS OF LAW

1. Notice of this hearing was given as specified in the provisions of all regulatory codes.

2. All things have occurred or been accomplished to give the Commission jurisdiction in this matter.

3. A MER allowable of 300 BOPD for all wells in the Crosby 8 Lease, St. Clair (Granite Wash) Field will not cause waste and will not harm correlative rights.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiners recommend approval of the MER allowable of 300 BOPD for all wells in the Crosby 8 Lease, St. Clair (Granite Wash) Field and cancelling overproduction for all existing wells in the lease.

Respectfully submitted,

Paul Dubois
Technical Examiner

Terry Johnson
Legal Examiner