

THE APPLICATION OF LGDC CORPORATION FOR MER AUTHORITY FOR THE ELEANOR SHERRON LEASE, WELL NO. 1, INEDA (NODOSARIA B) FIELD, JEFFERSON COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: March 14, 2001

Hearing held: May 23, 2001

Appearances

William Osborn
Dale Miller

Representing
LGDC Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

LGDC is seeking MER determination for its Eleanor Sherron Lease Well No. 1 in the Ineeda (Nodosaria B) Field to allow this well to produce up to 400 BOPD, with a gas/oil ratio of 2000 cubic feet per barrel and consequent gas limit of 800 MCF/D. LGDC is also requesting that all overproduction for this well be canceled.

DISCUSSION OF THE EVIDENCE

The Ineeda (Nodosaria B) Field was approved as a new field in July 29, 1999. The discovery well, the only well in the field, is the Eleanor Sherron No. 1, drilled by LGDC. There are few wellbores nearby and the closest well is a dry hole. The Eleanor Sherron No. 1 was perforated between 8432 and 8436 feet and had an initial potential of 310 BOPD, with a gas/oil ratio of 809 cubic feet per barrel. Cumulative production is 184,000 barrels of oil and 149 MMCF, and there has been little decline in production to date.

The Nodosaria B sandstone reservoir extends from 8404 to 8742 feet in the Eleanor Sherron No. 1 but the oil rim is believed to be not much thicker than the perforated interval. The applicant believes there is a partial water drive as there has only recently been a slight pressure decline and the water cut is about 15%. If the current perforations water out, LGDC will perforate higher in the section but expects a higher gas/oil ratio. The gas/oil contact is about 8428 feet, and the applicant is requesting the gas/oil ratio remain 2000 cubic feet per barrel if the oil allowable is increased to 400 BOPD.

The current discovery allowable for the field is 340 BOPD but the allowable will decrease in August, 2001, to 133 BOPD and 266 MCF/D. The well was step-rate tested between April 12 and May 17, 2001, to determine the most efficient rate of production. The water cut does not appear to be very sensitive to rate. The gas/oil ratio did not vary greatly but is lower at moderately high producing rates. When LGDC attempted to produce the well at rates near the yardstick allowable, the flowing tubing pressure declined, indicating the well was loading with liquids.

When tested on a 13/64th inch choke, the oil rate was greater than 400 barrels of oil every day, with an average rate of 420 BOPD. The average gas/oil ratio was 846 cubic feet per barrel and water cut was 12.5%. On a 12/64th inch choke, the oil rate was 352 BOPD, with an average gas/oil ratio of 628 cubic feet per barrel and 14% water cut. On an 11/64th inch choke, the oil rate decreased to 269 BOPD, with a gas/oil ratio of 659 cubic feet per barrel and 16% water cut. When the choke was reduced to 9/64th inches, the well began to load and die. LGDC experienced some difficulty in returning the well to stable flow. LGDC believes that the most efficient rate was on a choke of 12/64th inches, where the production averaged less than 400 BOPD. Rates higher than 400 BOPD resulted in slightly higher gas/oil ratios and LGDC is requesting an MER of 400 BOPD.

Well No. 1 accumulated 356 barrels of overproduction before the test period. During testing, the amount of overproduction increased. The applicant requested that the overproduction for Well No. 1 be canceled as producing at a lower rate to make up the overproduction would be less efficient. The Eleanor Sherron No. 1 is also the only well in the field and cancellation of overproduction will not harm correlative rights.

FINDINGS OF FACT

1. Notice of this hearing was given to LGDC Corp., the only operator in the Ineeda (Nodosaria B) Field, on April 27, 2001.
2. The field was discovered in 1999, with the completion of the LGDC Eleanor Sherron No. 1, still the only well in the field.
3. The discovery well was perforated from 8432 to 8436 feet, and has already produced 184,000 barrels of oil and 149 MMCF of gas.
4. The current discovery allowable is 340 barrels of oil per day, but in August, 2001, the allowable will decrease to 133 BOPD and 266 MCF/D.
5. The reservoir has a partial water drive and the operator may have to re-perforated close to the gas/oil contact as the current perforations are near the oil/water contact and may water out.
6. The well was tested between April 12 and May 17, 2001, on varying choke sizes to determine the most efficient rate of production. Rates higher than 400 BOPD resulted in slightly higher gas/oil ratios and LGDC is requesting an MER of 400 BOPD.

- a. When tested on a 13/64th inch choke, the oil rate was greater than 400 barrels of oil every day, with an average rate of 420 BOPD. The average gas/oil ratio was 846 cubic feet per barrel and water cut was 12.5%.
 - b. On a 12/64th inch choke, the oil rate was 352 BOPD and the gas/oil ratio 628 cubic feet per barrel was the lowest during the test period. The water cut was 14%.
 - c. On an 11/64th inch choke, the oil rate decreased to 269 BOPD, with a gas/oil ratio of 659 cubic feet per barrel and 16% water cut.
 - d. When the choke was reduced to 9/64th inches, the well began to load and die. LGDC experienced some difficulty in returning the well to stable flow.
7. The Eleanor Sherron Well No. 1 had 356 barrels of overproduction before the test period and the amount of overproduction increased during the test.
 8. A maximum oil allowable of up to 400 BOPD is efficient and there is no reason to require overproduction to be made up by producing at a lower rate.

CONCLUSIONS OF LAW

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. Granting an MER for the LGDC Eleanor Sherron No. 1 will prevent waste and protect correlative rights within the field.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that an MER of 400 BOPD be established for the Eleanor Sherron Lease, Well No. 1 in the Ineeda (Nodosaria B) Field. Any overproduction for this well should also be canceled.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: June 5, 2001