

June 6, 2002

OIL AND GAS DOCKET NO. 08-0230949

THE APPLICATION OF BURLINGTON RESOURCES O & G CO-PERMIAN FOR AN MER FOR THE KEYSTONE, SOUTH (DEVONIAN) FIELD, WINKLER COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: March 21, 2002

Hearing held: June 5, 2002

Appearances

George C. Neale
Blaine Lewis

Representing
Burlington Resources O & G Co-Permian

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Burlington Resources O & G Co-Permian is seeking an MER to allow wells in the Keystone, South (Devonian) Field to produce up to 700 BO per day and cancellation of overproduction for its Keystone Cattle Company Lease Well No. 301.

DISCUSSION OF THE EVIDENCE

The Keystone, South (Devonian) was discovered in 1957, but produced only a nominal amount before Burlington recompleted the Keystone Cattle Company Well Nos. 301 and 406 to the Devonian formation in March of 2001. There had been no production reported in this field since the 1960's. When the Burlington Keystone Cattle Company Well No. 301 was drilled in 1968, it had tested 30 BOPD and large amounts of water from the Devonian. The well then produced from the Ellenburger and Wolfcamp Formations, but was shut-in between 1990 and its recompletion to the Devonian in 2001.

Well No. 301 was perforated from 8691' to 8740' and tested at a rate of 90 BOPD and 70 MCF/D, with 271 BWPD during June, 2001. The potential of Well No. 406 was tested at only 14 BOPD and 210 BWPD in March of 2001. Lease production totaled 24,000 barrels of oil between June, 2001 and March, 2002. On March 16, a submersible pump was installed in Well No. 301 and the daily producing rate increased from 400 barrels of fluid to 1600 barrels.

The Keystone, South (Devonian) Field is on Statewide Rules and the top allowable is 122 barrels of oil and 244 MCF per day. There are 4825 barrels of overproduction on the lease, all due to Well No. 301, as the current potential of Well No. 406 is only 8 BOPD.

Even though Well No. 301 has a submersible pump, it was rate tested between April 11 and May 31, 2002, by varying the pump speed. The average production during 14 days on a pump speed of 52.5 hertz was 367 BO, 421 MCF and 1248 BW per day. The average production during 15 days on a pump speed of 58 hertz was 607 BO, 507 MCF and 1590 BW per day. The average production during 18 days on a pump speed of 63 hertz was 673 BO, 568 MCF and 1665 BW per day. During the test, the water/oil ratio decreased from 3.4 to 2.47 and the gas/oil ratio decreased from 1147 to 844 MCF per barrel of oil. The highest producing rate during the test was 711 BOPD and the applicant believes an MER of 700 barrels will prevent waste.

This field was redeveloped because the applicant intended to use the produced saltwater from the Devonian to waterflood another field. Well No. 406 did not turn out to be a successful oil producer but Well No. 301 has been so successful that Burlington is planning an additional well. The new well should be higher structurally than Well No. 301, based on 3d seismic. Producing either Well No. 301 or future wells at the current allowable would be wasteful and an MER of 700 barrels of oil per day for any well completed in the Keystone, South (Devonian) Field will promote conservation.

Requiring Well No. 301 to produced at a reduced rate to make up overproduction would cause the well to be produced inefficiently. All the wells in the field are on the Keystone Cattle Company Lease and no correlative rights will be damaged if the overproduction of Well No. 301 is canceled.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice on April 11, 2002.
2. The Keystone, South (Devonian) Field was discovered in 1957, but there was little production before the field was abandoned in the 1960's.
3. The applicant recompleted the Keystone Cattle Company Lease Well Nos. 301 and 406 to the Devonian in 2001.
4. The initial potential of Well No. 301 was 90 BOPD and 70 MCF/D, with 271 BWPD, after it was perforated from 8691' to 8740'; and the initial potential of Well No. 406 was 14 BOPD and 210 BWPD.
5. The allowable for wells at this depth, on this spacing, is 122 BOPD with 244 MCF of gas per day.
6. Installation of a submersible pump on Well No. 301 in March of 2002, increased its daily liquid production from 400 barrels to 1600 barrels and has resulted in 4825 barrels of overproduction.
7. The pump rate was varied and showed that the water cut and gas/oil ratio decreased when the well was produced at rates of 650 to 700 barrels of oil per day.
8. All the wells in this field are on the same lease, and requiring Well No. 301 to make up overproduction is not necessary to protect correlative rights.

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. The requested increase in oil allowable for wells in the Keystone, South (Devonian) Field will prevent waste and will protect correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that wells in the Keystone, South (Devonian) Field be allowed to produce up to 700 barrels of oil per day. All overproduction for the Burlington Resources O & G Co-Permian Keystone Cattle Company Lease Well No. 301 should be canceled.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: June 25th, 2002