



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0305778

THE APPLICATION OF ENCANA OIL AND GAS (USA) INC. TO CONSIDER A SPECIAL ALLOWABLE FOR THE DAVIDSON 42A (280715) LEASE, WELL NO. 4202A, SPRABERRY (TREND AREA) FIELD, MIDLAND COUNTY, TEXAS

HEARD BY: Karl Caldwell – Technical Examiner
Clayton Hoover – Administrative Law Judge

HEARING DATE: December 15, 2017
RECORD CLOSED: December 15, 2017
CONFERENCE DATE: February 13, 2018

APPEARANCES: **REPRESENTING:**

APPLICANT: Encana Oil and Gas (USA) Inc.

Davin McGinnis
James Clark, P.E.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Encana Oil and Gas (USA) Inc. (Encana) requests authority to produce the Davidson 42A (280715) Lease, Well No. 4202A, Spraberry (Trend Area) Field, Midland County, Texas, under a special allowable of 600 Mcf per day. Encana also requests cancellation of overproduction for the Davidson 42A Lease, Well No. 4202A. Notice of the application was provided to operators in the field. The application is unopposed. The Technical Examiner and Administrative Law Judge (collectively "Examiners") recommend approval of the application.

DISCUSSION OF THE EVIDENCE

The Davidson 42A (280715) Lease, Well No. 4202A, API No. 42-329-40430, (subject well), is a gas well completed in the Spraberry (Trend Area) Field in Midland County. The gas allowable in the Spraberry (Trend Area) Field, as determined by the first gas well completed in the field, is 220 Mcfd. However, the top allowable for an oil well

completed in the Spraberry (Trend Area) Field on a 40-acre unit is 643 BOPD and 2,572 Mcfd of casinghead gas.

There are a total of 3 producing gas wells in the Spraberry (Trend Area) Field, including the subject well. Aside from the subject well, one gas well is producing at 1 Mcfd, while the other gas well is producing at a rate of 33 Mcfd. All other gas wells on the proration schedule are either shut-in or injection wells.

The subject well is unique in that it is a gas well in the Spraberry (Trend Area) Field that is a natural completion. That is, the well has never been hydraulically fracture stimulated. During the drilling of the subject well, the operator had trouble controlling the well. The well has been cased and cemented. Form W-2 shows 8 5/8-inch surface casing set at 1,787 feet and cemented with cement circulated to surface. A 5 1/2 inch production string was set at 10,913 feet with a DV tool set at 5,810 feet. The production string was cemented from 10,913 feet to 5,810 feet and from 5,810 to 375 feet. The operator perforated the production casing from 10,826 feet to 10,828 feet (a two-foot interval), with the purpose of squeezing cement. However, the operator was unable to pump cement into the perforations because the well started flowing gas.

Encana decided to produce the well until the well bled down and the pressure subsided, at which time Encana would enter the wellbore and perform a squeeze cement job and complete the well. The well has been producing gas for the past 1.5 years. As a result of the gas production, it is believed that the squeeze perforations are in the vicinity of a natural fracture system. There is another well on the lease, and it did not encounter the same situation. The well continues to flow gas above the daily allowable for a gas well in the field. Encana has tried to choke the well back, but this caused the choke to freeze, ceasing production altogether.

Encana requests to produce the well at 600 Mcfd and to cancel overproduction. The subject well was tested between August 17 and 18, 2017 on an 18/64-inch choke, at which time the well produced between 547 and 572 Mcf of gas per day, with 600 to 650 bbl of water, and approximately 25 to 26 BO, with a gas-oil ratio (GOR) of 22,000:1.

On August 24, 2017 Encana attempted to choke the well back on a 10/64-inch choke, the choke froze due to the pressure drop across the choke and the well ceased to produce. The well was then tested on a 14/64-inch choke after it thawed out and the well stabilized between 370 to 496 Mcfd with approximately 300 to 350 bbl of water per day and 20 to 22 BOPD, and a GOR of approximately 20,000 to 22,000:1. On September 29 2017 the well was tested on a 16/64 choke. The well stabilized between 415 to 450 Mcfd, with approximately 20-22 BOPD, and 300 to 400 bbl of water per day, and a GOR around 21,000 to 22,000. Encana then attempted to choke the well back using a 12/64-inch choke and once again the choke froze and the well ceased to produce.

The tests indicate that the subject well is not rate sensitive, and producing the subject well at the requested special allowable of 600 Mcfd will not cause waste.

Encana agreed, that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be effective on the date a Master Order relating to this Final Order is signed.

FINDINGS OF FACT

1. Notice of the application was provided to operators in the Spraberry (Trend Area) Field, at least ten (10) days prior to the date of the hearing, and no protests were received.
2. The Davidson 42A (280715) Lease, Well No. 4202A, API No. 42-329-40430, is a gas well completed in the Spraberry (Trend Area) Field.
3. The allowable for a gas well in the Spraberry (Trend Area) Field is 220 Mcfd.
4. Encana requests authority to produce the Davidson 42A (280715) Lease, Well No. 4202A, API No. 42-329-40430, at a special allowable rate of 600 Mcfd, and cancellation of overproduction.
5. The top allowable for an oil well completed on a 40-acre unit in the Spraberry (Trend Area) Field is 643 BOPD and 2,572 Mcfd of casinghead gas.
6. The subject well is unique in that it is a gas well in the Spraberry (Trend Area) Field that is a natural completion; the well has never been hydraulically fracture stimulated.
7. There are a total of 3 producing gas wells in the Spraberry (Trend Area) Field, including the subject well. Aside from the subject well, one gas well is producing at 1 Mcfd, while the other gas well is producing at a rate of 33 Mcfd.
8. The well continues to flow gas above the daily allowable for a gas well in the field. Encana has tried to choke the well back, but this caused the choke to freeze, ceasing production altogether.
9. The subject well was tested between August 17 and 18, 2017 on an 18/64-inch choke, at which time the well produced between 547 and 572 Mcf of gas per day, with 600 to 650 bbl of water, and approximately 25 to 26 BO, with a gas-oil ratio (GOR) of 22,000:1.

10. On August 24, 2017 Encana attempted to choke the well back on a 10/64-inch choke, the choke froze due to the pressure drop across the choke and the well ceased to produce.
11. On September 29 2017 the well was tested on a 16/64-inch choke. The well stabilized between 415 to 450 Mcfd, with approximately 20-22 BOPD, and 300 to 400 bbl of water per day, and a GOR around 21,000 to 22,000.
12. Encana attempted to choke the well back using a 12/64-inch choke and once again the choke froze and ceased to produce.
13. Attempting to choke the well back to produce at the gas allowable rate causes the choke to freeze and production to cease.
14. The flow rate tests indicate that the well is not rate sensitive, and producing the subject well at a special allowable of 600 Mcfd and cancellation of overproduction will prevent waste.
15. Encana agreed, that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be effective on the date a Master Order relating to this Final Order is signed.

CONCLUSIONS OF LAW

1. Proper notice was issued as required by all applicable statutes and regulatory codes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Approval of a special allowable of 600 Mcf of gas per day and cancellation of all overproduction for the Davidson 42A Lease, Well No. 4202A will allow the recovery of hydrocarbons and prevent waste.
4. Encana agreed, that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be effective on the date a Master Order relating to this Final Order is signed.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Davidson 42A (280715) Lease, Well No. 4202A, Spraberry (Trend Area) Field, Midland County, Texas, be authorized to produce under a special allowable of 600 Mcf per day, and all overproduction be cancelled.

Respectfully submitted,



Karl Caldwell
Technical Examiner



Clayton Hoover
Administrative Law Judge