

OIL AND GAS DOCKET NO. 03-0225388

THE APPLICATION OF COBRA OIL & GAS CORPORATION FOR TEMPORARY FIELD RULES IN THE ANDROMEDA (LOWER VICKSBURG) FIELD, FORT BEND COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: July 10, 2000

Hearing held: August 10, 2000

Appearances

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| Dick Schmidt | Representing Cobra Oil & Gas Corporation |
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EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Cobra Oil & Gas Corporation is seeking the following temporary field rules:

1. Designated interval from 10,015 to 10,040 feet as shown on the log of the Cobra Oil & Gas Corporation Caldwell Unit Lease Well No. 1;
2. 660-1320 feet well spacing;
3. 320 acre oil proration units with 40-acre tolerance for the last well on a lease, and
4. allocation based on acreage.

DISCUSSION OF THE EVIDENCE

The Andromeda (Lower Vicksburg) Field was discovered in April of 2000, by the completion of the Cobra Oil & Gas Corporation Caldwell Unit Well No. 1. This well was perforated from 10,091 to 10,098 feet (measured depth) and its initial potential, as measured on April 3rd, was 236 BOPD and 630 MCF/D, with no water. The oil gravity is 41 degrees API and the reservoir bottomhole pressure was estimated at 8638 psi.

The true vertical depths of the perforations are between 10,025 and 10,032 feet in this Vicksburg sandstone that extends from a vertical depth of 10,015 feet to 10,040 feet. The nearest Vicksburg production is about two miles to the south in the Gemini (Vicksburg) Field, and there are dry holes between this field and the Caldwell Unit No. 1.

On August 2, 2000, the well produced at a rate of 420 BOPD, on a 6/64th inch choke, with

a flowing tubing pressure of 6375 psi. On August 8, the choke was opened to 8/64th inches and the well flowed at a rate of 448 barrels per day with a flowing tubing pressure of 6300 psi. Assuming the producing rate of the Caldwell Unit No. 1 declines at 25% per year, it will ultimately produce 725,000 barrels of oil.

Porosity in the Caldwell Unit No. 1 is 21%, water saturation is 25% and the net pay is 10 feet. If 30% of the original oil in place can be recovered, volumetric calculations indicate there are 6966 barrels of recoverable oil per acre of reservoir. Comparing the possible ultimate recovery with the volumetric calculations shows this well may drain 347 acres. At least one other oil field and a few gas fields in the Vicksburg Formation of Fort Bend County have field rules specifying 320 acre proration units.

Cobra intends to drill additional wells in the field and the discovery well and planned additional wells are located from 3d seismic surveys. The applicant believes that 660 foot lease-line and 1320 foot between-well spacing will provide extra flexibility in locating wells in optimal seismic locations. Allocation based on acreage will protect correlative rights.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the field and to all operators and unleased mineral interest owners of tracts offsetting the discovery tract on July 24, 2000.
2. The discovery well, the Caldwell Unit Well No. 1, was perforated from a measured depth of 10,091 feet to 10,098 feet, (true vertical depths between 10,025 and 10,032 feet) in the Vicksburg Formation.
3. This producing Vicksburg sandstone extends from 10,015 to 10,040 feet (true vertical depth) in the Caldwell Unit No. 1.
4. The initial daily potential of the discovery well, on April 3, 2000, was 236 barrels of oil and 630 MCF of gas, and the well was then shut-in waiting on a gas pipeline.
5. Temporary rules specifying 320 acre units are appropriate for a period of 18 months.
 - a. The well produced at a rate of 420 barrels of oil per day on August 2, 2000, on a 6/64th inch choke, at a flowing tubing pressure of 6375 psi.
 - b. The well produced at a rate of 448 barrels of oil per day on August 8, 2000, on an 8/64th inch choke, at a flowing tubing pressure of 6300 psi.
 - c. Volumetric calculations indicate that 6966 barrels of oil are recoverable per acre of reservoir.
 - d. If the Caldwell Unit No. 1 declines at 25% per year, it will be able to recover 725,000 barrels of oil and drain 347 acres.

7. Well spacing of 660-1320 feet will allow extra flexibility in locating wells at the optimal location shown by 3d seismic.
8. Allocation based on acreage will 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 temporary field rules will prevent waste, protect correlative rights within the field, and promote orderly development of the reservoir.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the requested temporary field rules for the Andromeda (Vicksburg) Field be approved and reviewed in 18 months.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: September 25, 2000

Exhibits

1. Map
2. Form W-2
3. Log
4. Daily drilling report
5. Reservoir data sheet
6. Drainage calculations
7. Other Vicksburg field rules