

THE APPLICATION OF COASTAL OIL & GAS CORPORATION TO AMEND FIELD RULES IN THE JEFFRESS (VICKSBURG Q) FIELD, HIDALGO COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: June 7, 2000

Hearing held: June 29, 2000

Appearances

John Soule
Terry Payne

Representing
Coastal Oil & Gas Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

The existing rules for the Jeffress (Vicksburg Q) Field were adopted November 7, 1977, under Docket No. 4-68,084, as amended, and are summarized as follows:

1. Well spacing of 467-1200 feet;
2. 160 acre gas proration units, with 80-acre optional units; and
3. Allocation based on acreage.

Coastal is proposing the following amended rules:

1. Designated interval between 8758 feet and 8998 feet as shown on the log of the Coastal Oil & Gas Regina Brann Lease Well No. 7;
2. Well spacing of 467-933 feet;
3. 160 acre gas proration units, with 40-acre optional units; and
4. Allocation based 95% on acreage and 5% per well.

DISCUSSION OF THE EVIDENCE

Field rules for the Jeffress (Vicksburg Q) Field were adopted November 7, 1977, along the rules for several other Jeffress Vicksburg fields. These rules provided for 160 acre density with spacing of 467-1200 feet. About half of the Jeffress; Jeffress, NE; and Jeffress, E Vicksburg fields now have 160 acre density with 40 acre optional units, while others are on 40 acre density. The Jeffress area has numerous productive Vicksburg sandstones and the various productive strata have been broken into different reservoirs by faulting. Coastal has been an operator in the area for some time and now actively developing the area with recompletions and new wells. Rules that are consistent among the various fields will make it easier to downhole commingle and recomplete wells to the different Vicksburg sandstones.

The Jeffress (Vicksburg Q) Field was discovered in 1972, with the completion of the Coastal States Gas Producing Company G.G. Zamora Well No. 1. This, the only well ever completed in the subject field, produced 1.081 BCF before being plugged in 1980. The Zamora No. 1 had 100 feet of net pay, with 21% porosity and 26% water saturation, and Coastal estimates this well's drainage area to have been only 7 acres.

Coastal recently completed its Regina Brann Well No. 7 in the Jeffress (Vicksburg S) field. Log calculations indicate that the Vicksburg Q sands will also be productive in this well, but the Q sandstones have not yet been perforated. The Vicksburg Q sand extends between 8758 and 8998 feet in the log of the Regina Brann No. 7, the type log proposed for the subject field. A two-factor allocation formula will be required because of the multiple reservoirs likely in this interval.

Coastal has recently drilled several other new wells on the Regina Brann Lease and is planning more. Coastal expects some of these wells will encounter Vicksburg Q production along with other more productive Vicksburg sandstones. The Vicksburg Q interval is not expected to ever be a stand-alone target. Coastal admits that Q sand completions will likely have drainage areas similar to that of the G.G. Zamora No. 1, but is requesting the Jeffress (Vicksburg Q) Field have the same rules as the other Jeffress Vicksburg fields to facilitate completions.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice on April 18, 2000.
2. Field rules for the Jeffress (Vicksburg Q) Field provide for 160 acre density with 80-acre optional units and 467-1200 foot well spacing.
3. The Jeffress (Vicksburg Q) Field was discovered in 1972, and has had only one well completed in it, the Coastal G.G. Zamora No. 1.
4. The discovery well produced just over one BCF, and drained only a small area, before being plugged in 1980.
5. The Jeffress area has several Vicksburg sandstone intervals that are productive in different fault blocks, and the area is now being actively developed.

6. Jeffress Vicksburg wells completed in other sandstones may be downhole commingled to include Vicksburg Q sands where they are productive but the Vicksburg Q is not expected to be a stand alone completion.
7. Redevelopment and recompletion of the various Vicksburg reservoirs will be facilitated by having similar rules in the Jeffress Vicksburg fields, and almost all of the nearby Vicksburg fields permit 40-acre density.
8. Most of the nearby Vicksburg field rules permit wells to be drilled as close as 933 feet to each other and 933-foot between-well spacing will make it easier to drill infill wells.
9. Coastal's Regina Brann Lease Well No. 7 was recently completed in the Jeffress (Vicksburg S) Field and its log indicates probable Vicksburg Q sand production behind pipe.
10. The designated interval proposed for the Jeffress (Vicksburg Q) Field extends from 8758 feet to 8998 feet as shown on the log of the Coastal Oil & Gas Regina Brann Lease Well No. 7.
11. Because of the multiple reservoirs probable within the proposed designated interval, a two-factor allocation formula is required by statute.

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 amended field rules for the Jeffress (Vicksburg Q) Field will provide for orderly development of the area reservoirs and promote conservation.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the existing rules for the Jeffress (Vicksburg Q) Field be amended to include the proposed designated interval, 40-acre optional units, 933-foot between-well spacing and a two-factor allocation formula.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission action: July 25, 2000.

Exhibits

1. Area Map
2. Map of field wells
3. Proration schedule
4. New field designation
5. Field rule order
6. Well completion data
7. Rate vs time curve
8. Drainage area calculation
9. Log
10. Other fields with similar rules