

September 8, 2000

OIL AND GAS DOCKET NO. 04-0225773

THE APPLICATION OF BASS ENTERPRISES PRODUCTION COMPANY FOR NEW FIELD DESIGNATION AND TEMPORARY FIELD RULES FOR THE (PROPOSED) PORTLAND, W. (F-15) FIELD, SAN PATRICIO COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: August 16, 2000

Hearing held: September 6, 2000

Appearances

Susan Zachos
Carry McGregor

Representing
Bass Enterprises Production Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Bass Enterprises is seeking to have its Portland Oil Unit "A" Lease Well No. 1 designated as the discovery well for a field to be known as Portland, W. (F-5) Field. Bass is proposing the following temporary field rules for a period of two years:

1. Designated interval from 9166 to 9190 feet as shown on the log of the Bass Enterprises Portland Oil Unit "A" Lease Well No. 1;
2. well spacing of 467-1200 feet;
3. 160-acre oil proration units with 80-acre tolerance for the last well on a lease; and
4. allocation based 50% per well and 50% on acreage.

The examiner recommends that the allocation formula be based 75% on acreage and 25% per well. Bass had no objection to this proposal.

DISCUSSION OF THE EVIDENCE

The Portland Oil Unit "A" Lease Well No.1 was recompleted to the F-5 sand of the Frio Formation on May 28, 2000. The well was first drilled in 1966 and produced from other fields before being perforated from 9166 feet to 9184 feet in the F-5. The initial potential was 90 BOPD with 160 MCFD and no water. The bottom-hole pressure, as measured on an RFT test when the well was drilled, is 4200 psi, indicating a typical gradient for this area.

In this area, the Frio Formation produces from multiple stacked sands that are usually separated by 20 to 50 feet of impermeable shale. The Frio F-5 in the discovery well extends from 9166 to 9190 feet. There have been 134 wells within 2-1/2 miles of Well No. 1 but only 10 are now active, and none of these are oil wells.

The F-5 reservoir discovered by Well No. 1 is believed to cover about 320 acres. To the north, east, northwest and southeast are faults with throws of 20 to 40 feet. To the south is an estimated oil/water contact. The closest wells to the discovery well are operated by Bass and produce gas from the F-9 sand. The closest oil well, the Kelly Bell Portland Unit 'D' Lease Well No. 1, produced 183,000 MCF from the F-1 sand, between 1968 and 1975.

The net pay in Well No. 1 is 12 feet, the porosity is 19% and the water saturation is 58%. Based on these parameters there are 116,000 barrels of recoverable oil underneath 160 acres in the new field, assuming 15% recovery. The Portland Oil Unit "A" Well No. 1 has only been on production for 70 days. The well was briefly shut-in while Bass tested the overlying F-4 sand. After the F-5 was returned to production the well's water production increased to 25% and the oil production declined to 30 to 50 barrels per day. Because of the short production history, Bass has used three nearby Frio oil wells to estimate the ultimate recovery possible from Well No. 1. These three wells had similar producing characteristics to Well No. 1 and cumulative production of 327 MBO, 183 MBO and 106 MBO respectively.

Bass is actively developing the various Frio fields in this area and owns the surrounding leases. At least one other well has the F-5 sand behind pipe and new wells may be drilled that will encounter this particular reservoir along with other targets. Most of the other Frio fields in the West Portland area are gas fields on Statewide spacing of 467-1200 feet. The spacing rule proposed for this field will allow wells to be recompleted to the F-5 from gas fields without the need for Rule 37 exceptions.

The applicant requested that the allocation formula be based 50% per well and 50% on acreage. Because of the Normanna case, the Commission prefers not to assign more than 1/3 of the allowable on a per-well basis. Bass had no objection to a formula based 25% per well and 75% on acreage.

FINDINGS OF FACT

1. On August 25, 2000, notice of this hearing was given to all operators in the proposed Portland, W. (F-5) Field, to all offset operators to the discovery tract, and to all active operators within 2-1/2 miles.
2. The discovery well for the proposed Portland, W. (F-5) Field, the Bass Enterprises Portland Oil Unit "A" Lease Well No. 1, was completed in the Frio F-5 sand on May 28, 2000.
3. No wells produce from a comparable interval within 2-1/2 miles of the Portland Oil Unit "A" Lease Well No. 1 and nearby wells in other Frio sandstones are separated from this well by faults and dry holes.
4. The Portland Oil Unit "A" No. 1 was perforated from 9166 to 9184 feet and tested at a rate of 90 barrels of oil and 160 MCF per day.
5. The initial bottom-hole pressure in the F-5 sand in the Portland Oil Unit "A" Well No. 1 was measured at 4200 psi in 1966, which is typical pressure for this depth in this area.
6. Density of 160 acres per oil well is appropriate for temporary rules governing the subject field.
 - a. Volumetric calculations indicate that there are 116,000 barrels of recoverable oil underneath 160 acres.
 - b. Other Frio oil wells have produced from 106,000 to 327,000 barrels of oil.
 - c. The largely fault-bounded reservoir discovered by the Portland Oil Unit "A" Well No. 1 is estimated to cover about 320 acres.
 - d. Bass Enterprises owns the offsetting leases and plans additional development in the area.
7. Most other Frio sandstones in this area produce gas from fields under Statewide Rules and the requested spacing of 467-1200 feet will facilitate recompletions to the subject field.
8. The Frio F-5 formation in the proposed new field extends from 9166 feet to 9190 feet as shown on the log of the discovery well.
9. Allocation based 25% per well and 75% 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 F-5 sand in the Bass Enterprises Portland Oil Unit "A" Lease Well No. 1 is entitled to be considered a new field discovery well as it produces from a reservoir that has not been produced before.
4. The requested temporary field rules will prevent waste, protect correlative rights and promote orderly development of the field.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the Bass Enterprises Portland Oil Unit "A" Lease Well No. 1 be considered the discovery well for a new field and that the requested temporary rules for the newly-designated Portland, W. (F-5) Field be approved and reviewed in 24 months.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: September 25, 2000