

OIL AND GAS DOCKET NO. 08-0276079

THE APPLICATION OF P.O. & G OPERATING, L.L.C. TO AMEND FIELD RULES FOR THE BYRD FIELD, WARD COUNTY, TEXAS

Heard by: Andres J. Trevino, P.E., Technical Examiner
Terry Johnson, Hearings Examiner

Hearing Date: May 21, 2012

Appearances:

Dale E. Miller

Representing:

P.O. & G Operating, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

This is the unprotested application of P.O. & G Operating, LLC to amend the field rules first adopted in Special Order No. 8-4626, issued effective April 1, 1943, as amended, for the Byrd Field that currently provide for the following:

1. 460'-990' well spacing;
2. 40 acre oil units, 20 acre tolerance;
3. Allocation based on 25% per well, 75% acreage, 60 BOPD MER allowable;
4. Surface casing depth 650 feet.

P.O. & G Operating, LLC requests that field rules be amended as follows:

1. The entire correlative interval from 2,622 feet to 2,930 feet as shown on the Welex Radioactivity log of the Kay Kimbell & E.P. Campbell F.D. Harper Lease, Well No. 1;
2. 330'-330' well spacing,;
3. 40 acre oil and gas units with optional 10 acre units, no maximum diagonal, no individual proration plats;
4. Allocation based on 95% per well, 5% acreage, 60 BOPD MER allowable.

This application was unopposed and the examiners recommend that the field rules for the Byrd Field be amended as requested.

DISCUSSION OF EVIDENCE

The Byrd Field was discovered in 1942 at a depth of approximately 2,700 feet. Cumulative production from the field is approximately 1,184,211 BO. As of May 2012, there are 8 active oil wells, 2 injection wells and 19 plugged and abandoned wells in the field which in total produce about 9 BOPD.

P.O. & G Operating is redeveloping the field by drilling additional infill wells between existing wells to expand a limited waterflood that was first initiated in 1964. P.O. & G Operating believes current wells drilled with current density rules are not adequately draining existing reserves. The Byrd Field produces from the Yates formation, identified as the entire correlative interval between 2,622 feet to 2,930 feet as shown on the Welex Radioactivity log of the F.D. Harper Lease, Well No. 1. The Yates is a limestone which has a porosity of 13.7%.

Drainage area calculations performed for oil wells demonstrate the need for smaller units. Using reservoir parameters of 13.7% porosity, water saturation of 45%, a net pay thickness of 34 feet and recovery factor of 15%, drainage area calculations were performed for oil wells. Drainage calculations performed show oil wells will drain between 2 acres and 37 acres with a third of the wells draining 10 acres or less justifying the optional 10 acre density.

P.O. & G Operating requests 330'-330' well spacing for the Byrd Field so that it can place new wells in optimum locations between numerous existing wells to establish a 5-spot injection pattern without the need for Rule 37 exceptions. Currently oil wells are allowed to produce up to 60 BO/D per well. P.O. & G Operating wishes to maintain the current status. P.O. & G Operating request allocation formula be amended to 95% per well, 5% acreage to retain the majority of the oil allowable on wells drilled on 10 acre units.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. Field rules for the Byrd Field provide for 460'-990' well spacing, 40 acre oil units and allocation based on 25% per well, 75% acreage, 60 BOPD MER allowable.
3. The Byrd Field was discovered in 1942 and cumulative production from the field is approximately 1,184,211 BO. A limited waterflood was initiated in

1964.

4. Current production from the 8 active oil wells, 2 injection wells is about 9 BOPD.
5. The Byrd Field produces from the Yates limestone, that has 13.7% porosity.
6. The Byrd Field should be designated as the entire correlative interval between 2,622 feet to 2,930 feet as shown on the Welex Radioactivity log of the Kay Kimbell & E.P. Campbell F.D. Harper Lease, Well No. 1.
7. Wells in the field have drainage areas which vary significantly. Development with 40 acre density with optional 10 acre units is necessary to maximize recovery from the field.
 - a. Using reservoir parameters of 13.7% porosity, water saturation of 45%, a net pay thickness of 34 feet and recovery factors of 17% for oil wells, drainage area calculations were performed for oil wells.
 - b. Drainage calculations performed show oil wells will drain between 2 acres and 37 acres.
 - c. A third of the wells show to be draining 10 acres or less.
8. The proposed 330'-330' well spacing will accommodate development on optional 10 acre units and placing new wells between numerous existing wells to establish a 5-spot injection pattern.
9. P.O. & G Operating requests that oil wells are allowed to continue to produce up to 60 BO/D per well and the allocation formula be amended to 95% per well, 5% acreage to retain the majority of the oil allowable on wells drilled on 10 acre units, preventing waste.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
3. Amending field rules for the Byrd Field is necessary to prevent waste and protect correlative rights.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiners recommend that field rules for the Byrd Field be amended to provide for 40 acre units with optional 10 acre density and 330'-330' well spacing.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Examiner

Terry Johnson
Legal Examiner