



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0290631

THE APPLICATION OF OXY USA INC. TO AMEND FIELD RULES FOR THE COLLIE (DELAWARE) FIELD, REEVES AND WARD COUNTIES, TEXAS

HEARD BY: Paul Dubois – Technical Examiner
Terry Johnson – Hearings Examiner

HEARING DATE: August 29, 2014

APPEARANCES: **REPRESENTING:**

APPLICANT:

John Soule
Frank Muser

Oxy USA Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Oxy USA Inc. ("Oxy") seeks to amend field rules for the Collie (Delaware) Field in Ward and Reeves County, Texas. The field rule amendments requested by Oxy are intended to enhance development of the field by reducing spacing and density requirements, adding provisions for stacked lateral wells, and revising requirements for filing completion reports.

After the hearing, the examiners requested Oil & Gas Division staff review the proposed Final Order language for the purposes of improving clarity and facilitating implementation, not just for this matter but as a template for similar rules in other fields. Comments from the Office of General Counsel on behalf of the Oil & Gas Division were received, as were comments from counsel for Oxy. The application is not protested. The examiners recommend the field rules be amended for the Collie (Delaware) Field as requested by Oxy and further described below.

DISCUSSION OF THE EVIDENCE

The Collie (Delaware) Field was discovered in 1981 at a depth of 4,725 feet. The field straddles the Ward and Reeves County lines, east of the city of Pecos. Field rules were established on May 10, 1982 (Oil & Gas Docket No. 8-78,128) and have since been amended twice (Docket No. 08-0271883 on November 8, 2011, and Docket No. 08-0281323 on May 24, 2013). The field is defined as the correlative interval from 4,668 feet to 8,303 feet in the Cox & Graham Well No. 1 (API No. 42-475-30575).

There are 259 producing oil wells carried on the August 2014, oil proration schedule. There are no gas wells currently on schedule. Since 1993 the field has produced more than 8.9 million bbl oil and 15.5 BCF gas. Recently, monthly field production has been about 177,000 bbl oil and 330 MMCF gas. Oxy is the largest operator in the field, with about 74 percent of the historical production and 92 percent of the current wells.

The field rule amendments requested by Oxy are intended to enhance development of the field by reducing spacing and density requirements, adding provisions for stacked lateral wells, and revising requirements for filing completion reports. The justification for these requests are described below.

10-Acre Optional Units: Examining the decline curves for six adjacent and centrally-located wells on 20-acre spacing, Oxy noted that no signs of interference were observed when these wells entered production from about 2007 through 2011. The absence of interference suggests these wells are not fully draining their assigned 20 acre units. Oxy provided reservoir analysis indicating drainage areas for wells on the periphery of the field ranging from 9 to 16 acres. Based on this information, Oxy believes 10-acre optional units are appropriate for this field.

Well Spacing: Oxy seeks to reduce the minimum lease line spacing distance from 330 to 233 feet. Further, Oxy seeks to eliminate all between well spacing requirements. The reduction from 330 to 233 feet lease line spacing corresponds to the reduced optional unit size from 20 to 10 acres. For a 20-acre unit, the 330 foot lease line spacing distance is derived from one-half of the width of a rectangle whose area is 20 acres and whose length is twice its width. Following the same formula, for a 10-acre unit the minimum lease line spacing requirement is 233 feet.

Stacked Lateral Wells: Oxy seeks to add provisions for stacked lateral wells to the field rules. The correlative interval for the field extends from a depth of 4,668 feet to 8,030 feet, for an interval thickness of 3,362 feet. One horizontal well bore is typically not capable of efficiently producing from such a thick interval. Stacked lateral rules allow an operator to drill multiple horizontal laterals from different surface locations in approximately the same "fairway," but at different depths, so as to drain the entire vertical field interval within a given horizontal drainage area. Multiple horizontal drainholes within this "fairway"

are treated collectively as a single well for most regulatory purposes.

In an ideal situation, all stacked laterals assigned as a single well would exist on a single vertical plane, and the projections of the laterals onto the horizontal ground surface would resemble a straight line. In practice, however, there may be some degree of horizontal variation or drift associated with steering and drilling each lateral. Further, some laterals may be drilled and completed at shorter or longer lengths than others. Typical stacked lateral field rule provisions provide for a horizontal tolerance limit that is intended to identify that distance beyond which it is inappropriate to group individual laterals as stacked laterals as a single regulatory well. The horizontal tolerance limit provides relief to account for wellbore steering variances and drift. The horizontal tolerance limit has typically been measured from a central wellbore, referred to as a "Record Well" for the stacked lateral complex.

Oxy originally requested a 600-foot horizontal tolerance, but amended that request at the hearing to 300 or 400 feet. A 300-foot tolerance limit would create a 600-foot wide stacked lateral zone providing some degree of flexibility to account for steering or other variances in the drilling and completing of multiple horizontal laterals. No technical data to justify any of these distances were provided. The examiners believe a 300-foot horizontal tolerance limit is appropriate at this time. The 300-foot horizontal tolerance limit is intended to be measured in a horizontally-perpendicular direction from a central wellbore (i.e., record well) of the stacked lateral complex.

The requested 300-foot horizontal tolerance limit may appear to be at odds with the requested 233-foot minimum lease line spacing provision. The examiners wish to be clear on the potential for misconstruing the intent of these two parameters. As discussed above, the 233-foot lease line spacing provision is derived from the proposed optional unit size, and its origins lie in historical State and Commission action that establishes a buffer between adjoining competitive interests in a particular reservoir for the purposes of preventing waste and protecting correlative rights. The 300-foot horizontal tolerance provision is intended to account for incidental drilling variations that cause horizontal laterals to not align in a single vertical plane. In no way is the 300-foot horizontal tolerance provision intended to provide relief in the form of an implied exception to field spacing rules or 16 Tex. Admin. Code § 3.37. That is, all wellbores of a stacked lateral must conform to the field rule spacing requirements.

Proration Unit Plats: Oxy requests that plats defining individual proration unit not be required, but operators instead report assigned acreage on Form P-15 or an attachment thereto. As infill drilling progresses in a field, re-drawing proration unit boundaries becomes burdensome, unproductive and unhelpful for any regulatory purpose not easily achieved otherwise.

Exception to 16 Tex. Admin. Code § 3.16: The productive potential of a horizontal well cannot always be accurately determined within the established time frames for filing completion and initial potential testing reports. Oxy has therefore sought additional time to provide for the accurate testing and reporting. At the hearing, Oxy recommended language that was offered by the Office of General Counsel (regarding another matter, Oxy's application to amend field rules for the Dora Roberts [Consolidated] Field, Docket No. 08-0289577, pending). Oxy requests field rule language that states:

“Completion and plugging reports: The operator of a horizontal drainhole well shall file with the commission the appropriate completion report within 90 days after completion of the well, or within 150 days after the date on which the drilling operation is completed, whichever is earlier.”

Oxy believes that such exception to § 3.16 would allow all operators in the field to delay performing the initial potential test until the wells have stabilized. This would increase the likelihood of one completion report filing being sufficient for Commission staff to establish the well allowable.

FINDINGS OF FACT

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
2. The Collie (Delaware) Field was discovered in 1981 at a depth of 4,725 feet.
3. There are 259 producing oil wells carried on the August 2014, oil proration schedule. There are no gas wells currently on schedule. Since 1993 the field has produced more than 8.9 million bbl oil and 15.5 BCF gas. Recently, monthly field production has been about 177,000 bbl oil and 330 MMCF gas per. Oxy is the largest operator in the field, with about 74 percent of the historical production and 92 percent of the current wells.
4. Decline curves for six adjacent wells on 20-acre units in the central part of the field indicated no production interference at this density.
5. Reservoir analysis indicated three wells on the periphery of the field drain from nine to 15 acres.
6. The standard lease line spacing distance for a 10-acre drilling and proration unit is 233 feet.
7. The Collie (Delaware) Field has 3,362-foot correlative interval.

- a. One horizontal well bore is not capable of draining such a thick interval.
 - b. Stacked lateral rules allow an operator to drill multiple horizontal laterals from different surface locations in approximately the same "fairway," but at different depths, so as to drain the entire vertical field interval within a given horizontal drainage area.
 - c. The examiners believe a 300-foot horizontal tolerance limit is appropriate at this time.
 - d. The 300-foot horizontal tolerance limit is measured from a central wellbore (i.e., record well) of the stacked lateral complex.
 - e. The 300-foot horizontal tolerance provision is not an exception to field spacing rules or 16 Tex. Admin. Code § 3.37.
8. The proposed exception to § 3.16 will allow all operators in the field to delay performing the initial potential test until the wells have stabilized, increasing the likelihood of one completion report filing being sufficient for Commission staff to establish the well allowable.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051
2. All notice requirements have been satisfied. 16 Tex. Admin. Code § 1.45
3. The amended field rules as proposed by Oxy USA Inc. will prevent waste, protect correlative rights, and promote the orderly development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend the Commission amend the Field Rules for the Collie (Delaware) Field, as requested by Oxy USA Inc.


Paul Dubois
Technical Examiner

Respectfully submitted,


Terry Johnson
Hearings Examiner