



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0281323

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

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Marshall F. Enquist - Legal Examiner

HEARING DATE: April 10, 2013

APPEARANCES:

REPRESENTING:

APPLICANT:

John Soule
Nathaniel Jones

Oxy USA Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field Rules for the Collie (Delaware) Field were adopted in Final Order No. 8-78,128, effective May 10, 1982, as amended. The Field Rules are summarized as follows:

1. Designation of the field as the correlative interval from 4,709 feet to 5,171 feet, as shown on the log of the Latino Petroleum Texas, LP - Layden "A" Lease, Well No. 26 (API No. 42-389-32374);
2. 330'-660' well spacing;
3. 80 acre oil units with optional 20 acre density with the filing of Form P-15 to designate the number of acres to be assigned to each well and a per well MER allowable of 350 barrels of oil per day.

Oxy USA Inc. ("Oxy") requests that the Field Rules be amended, as shown below:

1. Designation of the field as the correlative interval from 4,668 feet to 8,030 feet, as shown on the log of the Oxy USA Inc. - Cox & Graham Lease, Well No. 1 (API No. 42-475-30575);

2. 330'-660' well spacing with no minimum between well spacing limitation between horizontal drainhole wells and horizontal drainhole wells or vertical wells and special provisions for "take points", 100' leaseline spacing for the first and last take points, a 33' "box rule" and "off-lease" penetration point in horizontal drainhole wells;
3. 80 acre oil units with optional 20 acre density with the filing of Form P-15 to designate the number of acres to be assigned to each well and a per well MER allowable of 350 barrels of oil per day;
4. Administrative exception to the provision of Statewide Rule 13(b)(5)(A) requiring flowing oil wells to be produced through tubing;
5. Administrative exception to the provision of Statewide Rule 51(a) requiring the filing of a potential test within ten days after an oil well is completed or recompleted.

The examiners recommended that Field Rule Nos. 4 and 5 be deleted, since there was no demonstration of a need for these exceptions in this field at this time. Oxy did not consider this recommendation to be adverse. The application was unopposed and the examiners recommend that the Field Rules be amended for the Collie (Delaware) Field, as proposed by Oxy.

DISCUSSION OF THE EVIDENCE

The Collie (Delaware) Field was discovered in November 1981 at an average depth of 4,700 feet. The field is classified as associated-49B and there are 165 producing oil wells, no producing gas wells and seven operators carried on the proration schedules. Current Field Rules provide for 330'-660' well spacing and 80 acre oil units with optional 20 acre density. The field has a per well MER allowable of 350 barrels of oil per day. Cumulative production from the field through March 2013 is 9.2 MMBO and 18.1 BCFG.

Oxy requests that the Collie (Delaware) Field be defined as the correlative interval from 4,668 feet to 8,030 feet, as shown on the log of the Oxy USA Inc. - Cox & Graham Lease, Well No. 1 (API No. 42-475-30575), Section 43, Block 33, H&TC RR Co. Survey, A-166, Ward County, Texas. The interval includes the entire Delaware Sands formation, and is located stratigraphically between the Rustler and Bone Spring formations.

Oxy is drilling horizontal drainhole wells in the Collie (Delaware) Field and requests Field Rules that will promote the efficient and effective development of the remaining hydrocarbons. Oxy requests 330'-660' well spacing with no minimum between well spacing limitation between horizontal drainhole wells and horizontal drainhole wells or vertical wells and special provisions for "take points", 100' leaseline spacing for the first and last take

points, a 33' "box rule" and "off-lease" penetration point in horizontal drainhole wells. Oxy argues that the proposed between well spacing is necessary to allow the drilling of horizontal drainhole wells, which may have to be placed very near other wells in some cases. Similar rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Bone Springs, Cotton Valley and Barnett Shale formations.

Oxy requests that a Field Rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Oxy's proposed rule specifies that, for purposes of lease line spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal drainhole well be used.

By allowing a 100' leaseline spacing for the first and last take points, an additional 230 feet of the reservoir is exposed to the horizontal drainhole well lateral and drained. These reserves would go unrecovered if the 100' leaseline spacing for the first and last take points is not approved. Oxy also proposes a 33' "box rule" for horizontal drainhole wells that would allow drainholes to deviate 33 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

In some cases, it is beneficial to penetrate the reservoir off lease, while still having "take points" no closer to lease lines than allowed under the field rules. Oxy requests that Field Rules for the subject field provide for an "off-lease" penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In this field, a well generally requires approximately 600 feet of horizontal displacement to make the 90 degree turn from vertical to horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 600 feet from the lease line. The proposed rule will allow approximately 230 feet of additional producing drainhole, which will result in the recovery of additional reserves. The Commission has adopted similar rules allowing offsite penetration points in other fields, after the operator has given notice to the mineral owners of the off-lease tract on which the penetration point is to be located and received no protest.

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 November 1981 at an average depth of 4,700 feet.

- a. The field is classified as associated-49B and there are 165 producing oil wells, no producing gas wells and seven operators carried on the proration schedules.
 - b. Current Field Rules provide for 330'-660' well spacing and 80 acre oil units with optional 20 acre density.
 - c. The field has a per well MER allowable of 350 barrels of oil per day.
3. The Collie (Delaware) Field should be defined as the correlative interval from 4,668 feet to 8,030 feet, as shown on the log of the Oxy USA Inc. - Cox & Graham Lease, Well No. 1 (API No. 42-475-30575), Section 43, Block 33, H&TC RR Co. Survey, A-166, Ward County, Texas. The interval includes the entire Delaware Sands formation, and is located stratigraphically between the Rustler and Bone Spring formations.
4. A spacing rule which utilizes "take-points" in a horizontal well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
 - a. A take-point in a horizontal well in this field may be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
 - b. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
 - c. For purposes of assignment of additional acreage pursuant to Statewide Rule 86, the distance between the first and last take point in a horizontal drainhole well should be used.
5. A Field Rule providing for 330'-660' well spacing with no minimum between well spacing limitation between horizontal drainhole wells and horizontal drainhole wells or vertical wells and a special provision for 100' lease line spacing for the first and last take points is appropriate for the Collie (Delaware) Field.
 - a. The proposed no minimum between well spacing limitation between horizontal drainhole wells and horizontal drainhole wells or vertical wells is necessary to allow the drilling of horizontal wells, which may have to be placed very near other wells in some cases.

- b. By allowing a 100' leaseline spacing for the first and last take points, an additional 230 feet of the reservoir is exposed to the horizontal lateral and drained. These reserves would go unrecovered if the 100' leaseline spacing for the first and last take points is not approved.
6. The proposed 33' "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
7. Allowing an "off-lease" penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of "off-lease" surface locations.
8. Similar rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Bone Springs, Cotton Valley and Barnett Shale formations.

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 the Field Rules for the Collie (Delaware) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiner recommends that the Commission amend the Field Rules, establish an MER of 350 BOPD and cancel the over-production for the Collie (Delaware) Field, as requested by Oxy USA Inc.

Respectfully submitted,



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Technical Examiner



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