



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0284851

THE APPLICATION OF TREY RESOURCES INC. TO RENUMBER AND AMEND FIELD RULES FOR THE SHAFTER LAKE (SAN ANDRES) FIELD, ANDREWS COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Laura Miles-Valdez - Legal Examiner

HEARING DATE: November 8, 2013

APPEARANCES: REPRESENTING:

APPLICANT:

George Neale
Rick Johnston

Trey Resources Inc.

INTERVENOR:

Michael E. McElroy

Ring Energy, Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field Rules for the Shafter Lake (San Andres) Field were adopted in Final Order No. 8-29,674, effective June 8, 1954, as amended. The current Field Rules in effect for the field are summarized as follows:

1. 467'-800' well spacing;
2. 40 acre oil units with optional 20 acre density;
3. Oil allocation based on 75% acres and 25% per well with a top MER oil allowable of 93 barrels of oil per day;
4. Surface casing provisions.

Trey Resources Inc. ("Trey") requests that the Field Rules be renumbered and amended, as shown below:

1. Designated correlative interval from 4,185 feet to 5,090 feet as shown on the log of the White Eagle Oil Company - University Lease, Well No. 3-A (API No. 42-003-07655);
2. 330'-0' well spacing with special provisions for "take points", 100' lease line spacing for the first and last take points, 33' "box" rule and "off-lease" penetration point for horizontal drainhole wells;
3. 40 acre oil units with optional 10 acre density and the filing of Form P-15 without proration unit plats;
4. Allocation based on 75% acres and 25% per well with a top oil allowable based on an MER Allowable of 450 barrels of oil per day.

The application is unopposed and the examiners recommend that the Field Rules be renumbered and amended for the Shafter Lake (San Andres) Field, as proposed by Trey.

DISCUSSION OF EVIDENCE

The Shafter Lake (San Andres) Field was discovered in April 1953 at an average depth of 4,500 feet. There are 256 producing oil wells and 27 operators carried on the oil proration schedule. The field operates under Field Rules that provide for 467'-800' well spacing and 40 acre oil units with optional 20 acre density. Cumulative production from the field through June 2013 is 55.9 MMBO and 19.1 BCFG.

There is currently no defined correlative interval for the field. Trey requests that the Shafter Lake (San Andres) Field be defined as the correlative interval from 4,185 feet to 5,090 feet as shown on the log of the White Eagle Oil Company - University Lease, Well No. 3-A (API No. 42-003-07655), Section 7, Block 14, University Lands Survey, A-U447, Andrews County, Texas. The correlative interval includes the entire productive portion of the San Andres formation.

Trey is developing the field with horizontal drainhole wells and requests that the Field Rules be amended to promote the efficient and effective development of the remaining hydrocarbons. Trey proposes 330'-0' well spacing with special provisions for "take points", 100' lease line spacing for the first and last take points, 33' "box" rule and "off-lease" penetration point for horizontal drainhole wells. Trey is proposing the same Field Rules that have already been adopted in the adjacent Shafter Lake, N. (San Andres) Field.

Trey requests that a Field Rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Trey'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.

Trey 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. Trey 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 500 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.

The Shafter Lake (San Andres) Field is located on the Central Basin Platform and the San Andres formation is correlative across the entire area. The San Andres formation is a low permeability dolomite reservoir that requires fracture stimulation and has a solution gas drive as the primary drive mechanism. Trey is requesting that the first and last take points of a lateral be as close as 100' to lease lines. The San Andres reservoir has oriented fractures and most of the drainage is along the fracture orientation with little contribution from the matrix in a perpendicular direction. A wellbore can be presumed to be drilled to encounter the maximum number of fractures and, therefore, be perpendicular to the fracture direction. The end points of such a lateral will not drain over 100' from the matrix in a direction perpendicular to fracture direction. The 100' leaseline spacing for the first and last take points will result in the additional recovery of reserves.

Trey requests 40 acre oil units with optional 10 acre density. 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 points in a horizontal drainhole well be used. Trey also requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well with no maximum diagonal limitation. Trey proposes allocation based on 75% acres and 25% per well with a top oil allowable based on an MER Allowable of 450 barrels of oil per day. The density and top oil allowable Field Rules are also the same rules adopted in the adjacent Shafter Lake, N. (San Andres) Field.

FINDINGS OF FACT

1. Notice of this hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing and no protests were received.
2. The Shafter Lake (San Andres) Field was discovered in April 1953 at an average depth of 4,500 feet.
 - a. There are 256 producing oil wells and 27 operators carried on the oil proration schedule.
 - b. The field operates under Field Rules that provide for 467'-800' well spacing and 40 acre oil units with optional 20 acre density.
 - c. The Shafter Lake (San Andres) Field is actively being developed with horizontal drainhole wells.
3. The Shafter Lake (San Andres) Field should be defined as the correlative interval from 4,185 feet to 5,090 feet as shown on the log of the White Eagle Oil Company - University Lease, Well No. 3-A (API No. 42-003-07655), Section 7, Block 14, University Lands Survey, A-U447, Andrews County, Texas. The correlative interval includes the entire productive portion of the San Andres formation.
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.
5. The proposed 33' "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
6. 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.

7. A 100' leaseline spacing for the first and last take points will result in an additional recovery of reserves.
 - a. The San Andres formation is a low permeability dolomite reservoir that requires fracture stimulation.
 - b. The San Andres reservoir has oriented fractures and most of the drainage is along the fracture orientation with little contribution from the matrix in a perpendicular direction.
 - c. A wellbore can be presumed to be drilled to encounter the maximum number of fractures and, therefore, be perpendicular to the fracture direction.
 - d. The end points of such a lateral will not drain over 100' from the matrix in a direction perpendicular to fracture direction.
8. Adoption of 40 acre oil units with optional 10 acre density is appropriate for the Shafter Lake (San Andres) Field.
9. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, the distance between the first and last take points in a horizontal drainhole well should be used.
10. Allocation based on 75% acres and 25% per well with a top oil allowable based on an MER Allowable of 450 barrels of oil per day is appropriate for the Shafter Lake (San Andres) Field.
11. The same Field Rules have already been adopted in the adjacent Shafter Lake, N. (San Andres) Field.
12. The filing of Form P-15 to designate the number of acres to be assigned to each well for proration purposes with no proration unit plats will eliminate unnecessary paperwork.

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. Renumbering and amending Field Rules for the Shafter Lake (San Andres) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

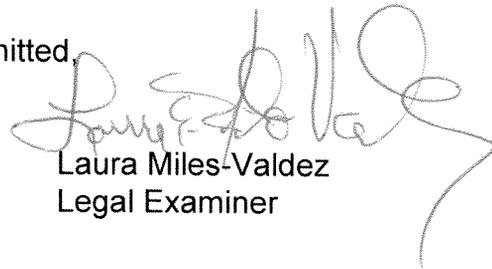
RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission renumber and amend Field Rules for the Shafter Lake (San Andres) Field, as proposed by Trey Resources Inc.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Laura Miles-Valdez
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