



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 7C-0286578

THE APPLICATION OF APACHE CORPORATION TO AMEND FIELD RULES FOR THE LIN (WOLFCAMP) FIELD, IRION COUNTY, TEXAS

HEARD BY: Paul Dubois – Technical Examiner
Karl Caldwell – Technical Examiner
Marshall Enquist – Hearings Examiner

DATE OF HEARING: February 19, 2014

APPEARANCES: **REPRESENTING:**

APPLICANT:

Brian Sullivan, P.E.	Apache Corporation
Mark Henkhaus	
Michael Fairbanks	
Dean Gaines	

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Apache Corporation (Apache) requests that field rules for the Lin (Wolfcamp) Field be amended and made permanent. Apache is requesting to change the correlative interval for the field and to amend certain aspects of the existing the stacked lateral provisions. The application was not protested, and the examiners recommend approval.

DISCUSSION OF EVIDENCE

The Lin (Wolfcamp) Field was discovered in October 1984 at a depth of 6,600 feet. The field operated under statewide rules until field rules for the Lin (Wolfcamp) Field were established on August 23, 2011 by Commission Final Order (Docket No. 7C-027697). These rules include provisions for the following:

1. Designation of the field as the correlative interval from 6,005 feet to 7,100 feet as shown on the log of the EOG Resources, Inc. - University 40 Lease, Well No. 1401H (API No. 42-235-34462);
2. 330'-0' well spacing, 100' lease line spacing for the first and last take points and special provisions for "take points", a "box rule" and "off-lease" penetration point for horizontal drainhole wells;
3. Allocation based on 95% deliverability and 5% per well with AOF status;
4. Stacked lateral provisions for horizontal wells.

The field rules were established as temporary rules set to expire on August 23, 2013. The temporary were extended until February 23, 2015 by Commission action on October 1, 2013. There is no density provision in the field rules, and none has been requested by the applicant.

From discovery through about 2009 the field was developed by less than about 20 wells. Since 2009 the field has been extensively developed with the addition of more than 300 horizontal wells. Similarly, field-wide production was relatively flat and declining from 1984 to 2009 from 30 BOPD to about 2 BOPD. Since 2009, oil production has increased to 30,000 to 40,000 BOPD and gas production has increased to 100 MMCFPD. Apache stated that the oil production was actually closer to 100,000 BOPD, as Commission records lag behind industry production reporting.

The field's correlative interval established in 2011 expressly included the upper and middle members of the Wolfcamp Formation. Apache's hearing notice requested to expand that interval to include all of the Wolfcamp Formation as follows:

The entire correlative interval from 6,388 feet to 8,820 feet as shown on the log of the Apache Corp. – Scott Sugg 5051 Lease, Well no. 1H (API No. 42-235-34889), Section 50, Block 14, H&TC RR Survey, Irion County, Texas, shall be designated as a single reservoir for proration purposes and be designated as the Lin (Wolfcamp) Field. The correlative interval is defined as the top of the Wolfcamp Formation to the top of the Strawn Formation.

At hearing, Apache requested that the correlative interval instead be based on a different well, the Apache Corp Scott Sugg 0251 H 81 (API No. 42-235-235352). The log for this well includes a gamma ray curve through the Clear Fork Formation, while the former log does not. This will enable better and continuous correlation of Lin (Wolfcamp) Field with the nearby Spraberry (Trend Area) Field. The examiners agreed with the replacement and determined that no additional notice was necessary. Therefore, the

proposed correlative interval should be:

The entire correlative interval from 6,255 feet to 8,720 feet as shown on the log of the Apache Corp. – Scott Sugg 0251 Lease, Well no. H81H (well renamed to SSH Unit Well No. H 43 M) (API No. 42-235-35352), Section 2, Chamberlain, M/Ratliff, W A Survey, A-1232, Irion County, Texas, shall be designated as a single reservoir for proration purposes and be designated as the Lin (Wolfcamp) Field. The correlative interval is defined as the top of the Wolfcamp Formation to the top of the Strawn Formation.

Apache proposes two additional changes to the field rule provisions for stacked lateral wells (Field Rule No. 4). These rule changes are essentially administrative and should help to prevent confusion or issues that may prevent the appropriate classification of stacked lateral wells. Field Rule 4, Section 1 c currently states:

Each point of a Stacked Lateral Well's horizontal drainhole shall be no more than 300 feet in a horizontal direction from any point along any other horizontal drainhole of that same Stacked Lateral Well. This distance is measured perpendicular to the orientation of the horizontal drainhole and can be illustrated by the projection of each horizontal drainhole in the Stacked Lateral Well into a common horizontal plane as seen on a location plat;

Apache has experienced some difficulty in drilling stacked lateral wells in the field. On occasion, a stacked lateral may be terminated shorter than planned. To ensure that a short lateral can still be accounted for as a stacked lateral well, Apache proposes to add the following sentence onto the existing language:

Where one drainhole of a Stacked Lateral is longer than that of another drainhole of the Stacked Lateral, the 300 feet maximum shall be measured between the longer lateral and a projection of the shorter lateral along the same path as the existing lateral;

Field Rule 4, Section 6 currently states:

In addition to the completion forms for each surface location of a Stacked Lateral Well, the operator must file a separate Form G-1 or Form W-2 for record purposes only for the Commission's Proration Department to build a fictitious "Record Well" for the Stacked Lateral Well. This Record Well will be identified with the words "SL Record" included in the lease name. This Record Well will be assigned an API number and Gas Well ID or Oil lease number and listed on the proration schedule with an allowable if applicable.

To clarify the administrative processes for identifying stacked lateral wells, Apache

proposes to replace this section with the following:

Each stacked lateral well will be assigned an API number and will require a drilling permit designating the well as a Stacked lateral. The drilling permit application will require the identification of the well establishing the proration acreage ("Record Well") for which the Stacked Lateral well will be placed. Each Stacked Lateral well shall be identified by the use of "SL" in the well number in case of oil wells, the use of "SL" in the lease name in case of gas wells. The operator must file a separate G-1 or W-2 completion record for each Stacked Lateral well.

The examiners recommend that these field rule changes be approved and that the field rules be made permanent.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Lin (Wolfcamp) Field was discovered in October 1984 at a depth of 6,600 feet.
3. Horizontal development since 2009 has greatly increased field productivity.
4. The entire correlative interval from 6,255 feet to 8,720 feet as shown on the log of the Apache Corp. – Scott Sugg 0251 Lease, Well no. H81H (well renamed to SSH Unit Well No. H 43 M) (API No. 42-235-35352), Section 2, Chamberlain, M/Ratliff, W A Survey, A-1232, Irion County, Texas, shall be designated as a single reservoir for proration purposes and be designated as the Lin (Wolfcamp) Field. The correlative interval is defined as the top of the Wolfcamp Formation to the top of the Strawn Formation.
5. The proposed changes to the Stacked Lateral provisions of Field Rule No. 4 will prevent waste, protect correlative rights, and promote the orderly development of the field.

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 and making permanent the proposed Field Rules for the Lin (Wolfcamp) Field will 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 and make permanent the Field Rules proposed by Apache for the Lin (Wolfcamp) Field.

Respectfully submitted,



Paul Dubois
Technical Examiner



Marshall Enquist
Hearings Examiner