



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 03-0311097

THE APPLICATION OF ENERVEST OPERATING, L.L.C. (252131) TO CONSIDER AMENDING THE FIELD RULES FOR THE GIDDINGS (AUSTIN CHALK, GAS) FIELD, VARIOUS COUNTIES, TEXAS

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HEARD BY: Robert Musick - Technical Hearings Examiner
Kristi M. Reeve - Administrative Law Judge

HEARING DATE: July 20, 2018

CONFERENCE DATE: October 16, 2018

APPEARANCES:

APPLICANT:

Mark Hanna, Attorney
Greg Melton, Landman
James M. Clark, P.E., Engineer

REPRESENTING:

Enervest Operating, L.L.C.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Enervest Operating, L.L.C. ("Enervest") seeks to amend field rules for the Giddings (Austin Chalk, Gas) Field (No. 34773550) and the Giddings (Austin Chalk-3) Field (No. 34733500) in various counties, Texas, collectively identified as the, "Subject Fields".

A request to amend the field rules for the Subject Fields was addressed concurrently in the hearing because the Subject Fields are stratigraphically equivalent formations. Enervest is requesting to adopt the same correlative interval for the Giddings (Austin Chalk, Gas) Field, as was adopted for the Giddings (Austin Chalk-3) Field in Final Order No. 03-0280185, dated February 26, 2013.

All other requested amendments to the field rules for the Subject Fields are exactly the same: amend the lease line or subdivision line spacing from 467 feet to 330 feet; amend the between well spacing from 1,200 feet to a no minimum between well spacing; amend the first and

last take points to 100-foot take point spacing with 330-foot perpendicular to drainhole spacing; amend the proration unit plats as optional with the filing of a Form P-16; and, amend the proration unit diagonal to have no maximum.

The adoption of a correlative interval for the Giddings (Austin Chalk, Gas) Field will be protective of correlative rights and the spacing and density amendments for the Subject Fields will allow for greater flexibility and additional development which will increase recovery and prevent waste.

Notice was given to all operators in the Fields. The applications are not protested. The Technical Examiner and Administrative Law Judge (collectively, "Examiners") recommend that the field rule amendments be granted as requested by Enervest.

DISCUSSION OF THE EVIDENCE

Notice of Hearing was issued by the Commission on May 17, 2018, to operators in the Subject Fields at least ten days prior to the date of the hearing. A hearing was held on July 20, 2018. At the hearing, Enervest requested to:

- Adopt a correlative interval for the Giddings (Austin Chalk, Gas) Field described as, "The entire correlative interval from 6,805 feet to 7,588 feet as shown on the log of the Clayton Williams Energy, Inc. – Lehman OL Unit, Well No. 1 Pilot Hole (API No. 42-287-32574), Samuel Gates Survey, A-10, Lee County, Texas."
- Amend the Subject Fields as follows:
 - amend the lease line or subdivision line spacing from 467 feet to 330 feet;
 - amend the between well spacing from 1,200 feet to a no minimum between well spacing;
 - amend the first and last take points to 100-foot spacing with a 330-foot perpendicular to drainhole spacing requirement;
 - amend the proration unit plats as optional with the filing of a Form P-16; and
 - amend the proration unit diagonal to have no maximum.

At the hearing, the Subject Fields were discussed by Enervest. The Subject Fields have the following regulatory history:

- The Giddings (Austin Chalk-3) Field was discovered in November 1960. The Giddings (Austin Chalk-3) Field was adopted by Final Order No. 3-66,660, dated February 1977, as temporary field rules. The field rules became permanent field rules per Final Order No. 3-69,217, dated September 1978.
- The Giddings (Austin Chalk, Gas) Field was discovered in August 1978, at a depth of approximately 6,800 feet deep. The Giddings (Austin Chalk, Gas) Field was adopted by Final Order No. 3-70,199, dated December 11, 1978, as temporary field rules. The field rules became permanent field rules per Final Order No. 03-76,629, dated July 1981.

The Subject Fields are stratigraphically equivalent with oil well completions listed in the Giddings (Austin Chalk-3) Field and gas well completions listed in the Giddings (Austin Chalk,

Gas) Field. Testimony in the hearing indicate the Subject Fields have the following field characteristics and regulatory issues:

- The Subject Fields are primarily composed of the Austin Chalk, which is naturally fractured. The lower portion of the Austin Chalk Formation is productive of hydrocarbons. From shallowest to deepest, the productive portions of the interval are identified by Enervest as the Austin Chalk D Zone to the Austin Chalk A Zone. The Austin Chalk A Zone lies immediately above the Eagle Ford Shale Formation. The Austin Chalk matrix rock is characterized by very low permeability, and production is primarily through connecting the stored hydrocarbons in the matrix through natural fractures and hydraulically induced fractures;
- The Subject Fields have been developed with horizontal wellbores since the early 1990's. Early development focused on the Austin Chalk B Zone, which typically has a high degree of natural fracture development. Early horizontal wells were drilled perpendicular to the natural fracture strike orientation which is oriented southwest to northeast;
- Beginning in the early 2000's, some operators focused on drilling horizontal wells in the Austin Chalk D Zone which overlies the B Zone. Enervest began developing the Austin Chalk A Zone with horizontal wells in 2011. In some areas of the Subject Fields, the A Zone is capped with a thin impermeable layer of volcanic ash clay, which acts as an effective seal between the A Zone and B Zone. Large fractures and faults will hydraulically communicate the entire productive Austin Chalk interval, which is primarily from the A Zone to D Zone;
- The A Zone is not being effectively drained by the overlying B Zone and D Zone horizontal wells. Similar to the natural fracture azimuths, hydraulically induced fracture azimuths are typically oriented southwest to northeast. Wellbores are drilled as close to perpendicular to this azimuth as possible which is northwesterly to southeasterly. Hydrocarbon recovery primarily occurs in a perpendicular direction to the horizontal wells. Drainage parallel to the axis of the horizontal wells is minor, due to the very low matrix permeability of the Austin Chalk Formation, hence the reason that Enervest is requesting the dual spacing rule to amend the first and last take points to 100-foot spacing with 330-foot perpendicular to drainhole setback spacing requirement;
- The development of the A Zone has been hampered by between well spacing restrictions and assignment of proration units to the new A Zone horizontal wells. Well installation into the A Zone is desired, but the proration units for the overlying B and D Zone horizontal wells limit what can be conducted without a hearing, final order or Rule 37 amendment; and
- Currently, the Subject Fields operate under rules that provide for 467 feet lease line spacing and 1,200 feet between well spacing, 160-acre density with 80-acre options, and the allocation based on 100% acreage. Data in the hearing established that approximately 50 percent of the permits in the Subject Fields from January 2018, through July 12, 2018, have been granted pursuant to Rule 37 exceptions, suggesting the current field rules do not promote efficient development of the Subject Fields.

Enervest has demonstrated the requested rule changes will be protective of correlative rights, increase recovery of resources and prevent waste. The Examiners recommend granting the application. Enervest agreed on the record that the Final Orders in these cases are to be final and effective when the Master Order relating to the Final Orders is signed.

FINDINGS OF FACT

1. Notice of this hearing was given on May 17, 2018, to all operators entitled to notice at least ten days prior to the date of the hearing and no protests were received.
2. The Subject Fields are the Giddings (Austin Chalk, Gas) Field (No. 34733500) and the Giddings (Austin Chalk-3) Field (No. 34773550) in various counties, Texas.
3. The Giddings (Austin Chalk, Gas) Field was discovered in August 1978, and the Giddings (Austin Chalk-3) Field was discovered in November 1960. The Subject Fields are stratigraphically equivalent with oil completions listed in the Giddings (Austin Chalk-3) Field and gas completions listed in the Giddings (Austin Chalk, Gas) Field.
4. The Giddings (Austin Chalk, Gas) Field was adopted by Final Order No. 3-70,199, dated December 11, 1978, as temporary field rules. The field rules became permanent field rules by Final Order No. 03-76,629, dated July 1981.
5. The Giddings (Austin Chalk-3) Field was adopted by Final Order No. 3-66,660, dated February 1977, as temporary field rules. The field rules became permanent field rules by Final Order No. 3-69,217, dated September 1978.
6. Enervest is seeking the following changes to the Subject Fields.
 - Adopt a correlative interval for the Giddings (Austin Chalk, Gas) Field described as, "The entire correlative interval from 6,805 feet to 7,588 feet as shown on the log of the Clayton Williams Energy, Inc. – Lehman OL Unit, Well No. 1 Pilot Hole (API No. 42-287-32574), Samuel Gates Survey, A-10, Lee County, Texas."
 - Amend the Subject Fields as follows:
 - amend the lease line or subdivision line spacing from 467 feet to 330 feet;
 - amend the between well spacing from 1,200 feet to a no minimum between well spacing;
 - amend the first and last take points to 100-foot spacing with 330-foot perpendicular to drainhole spacing;
 - amend the proration unit plats as optional with the filing of Form P-16; and
 - amend the proration unit diagonal to have no maximum.
7. A hearing was held on July 20, 2018.
8. The adoption of a correlative interval for the Giddings (Austin Chalk, Gas) Field will be protective of correlative rights and the spacing and density amendments for the Subject Fields will allow for greater flexibility and additional development which will increase recovery and prevent waste.
9. At the hearing, Enervest agreed on the record that these Final Orders in these cases are to be final and effective when the Master Order relating to the Final Orders are signed.

CONCLUSIONS OF LAW

1. Resolution of the subject applications 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 § 1.42.
3. The requested amendment to the Field Rules will prevent waste.
4. Pursuant to § 2001.144 (a)(4)(A) of the Texas Government Code and the agreement of the applicant, these Final Orders are final and effective when a Master Order relating to the Final Orders are presented at Commission conference and signed by the Commissioners.

EXAMINER'S RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend amending field rules for the Giddings (Austin Chalk, Gas) Field and the Giddings (Austin Chalk-3) Field, various counties, Texas.

Respectfully submitted,



Robert Musick
Technical Hearings Examiner



Kristi M. Reeve
Administrative Law Judge