



RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 10-0266961

THE APPLICATION OF PANTERA ENERGY COMPANY TO CONSIDER AN EXCEPTION TO STATEWIDE RULE 38 FOR ITS MORTON LEASE WELL NO. 6 IN THE PANHANDLE, WEST FIELD, MOORE COUNTY, TEXAS

Heard by: Donna K. Chandler, Technical Examiner
Marshall F. Enquist, Hearings Examiner

Appearances:

Representing:

Applicant:

William Osborn
Scott Herrick
Jason Herrick
Brooks Gentry

Pantera Energy Company

Protestants:

Jamie Nielson

ConocoPhillips Company

Procedural history:

Application received:	August 6, 2010
Notice of Hearing:	September 13, 2010
Hearing held:	October 25, 2010
Transcript date:	November 4, 2010
PFD issued:	February 22, 2011

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Pantera Energy Company ("Pantera") requests an exception to Statewide Rule 38 to drill its Morton Well No. 6 in the Panhandle, West Field in Moore County. The proposed well would be the fourth producing well on the 1,920 acre Morton lease. (See Attachment 1, Pantera Exhibit 2). Field rules for the Panhandle, West Field require 640 acres per well. The well is at a regular location with respect to Statewide Rule 37.

The application was protested by ConocoPhillips Company ("Conoco"). Conoco is the offsetting operator to the north of the proposed well.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

For the purposes of this hearing, Pantera presented data from the eight sections surrounding Section 202 in which the proposed well is located. Wells in sections to the west of Section 202 have cumulative production up to 67.9 BCF while sections to the east have much lower cumulative production, in the 13-16 BCF range. Pantera believes that there is obviously a difference in reservoir quality from west to east based on the difference in recoveries.

Pantera presented a gross thickness isopach of the Brown Dolomite pay interval. The gross thickness across the nine section area ranges from less than 200 feet to almost 500 feet, but there does not appear to be a correlation between cumulative production and gross pay thickness. Pantera was unable to calculate net pay in the wells because modern electric logs for these older wells are largely unavailable. Pantera recently ran a gamma ray neutron log for its Morton No. 3 in Section 201 to the west of the proposed well. Analysis of this log indicates that net pay is approximately 63% of gross pay. Pantera also used logs from the Donaldson Oil No. 1, which is approximately 2 miles to the north, to estimate porosity and water saturation for the Brown Dolomite. From this log analysis, average porosity was determined to be 21.2% and average water saturation was determined to be 21.6%.

Using the log-derived parameters and assuming 63% net pay/gross pay, original gas-in-place for the 1,920 acre lease was estimated to be 102 BCF. To date, Pantera estimates 79.5 BCF of gas had been produced from beneath the Morton lease, including drainage from wells both on the Morton lease and from offsetting wells. Therefore, Pantera asserts that approximately 22 BCF of gas remains under the lease. Based on decline curve analyses for the wells, only 0.663 BCF will be recovered by the existing wells, both on the Morton lease and on offsetting leases. Pantera claims an additional well on the Morton lease is necessary for it to recover its fair share of the 22 BCF estimated to remain under the lease.

Pantera presented calculated drainage areas for wells on the Morton lease based on cumulative production to date from the wells. These drainage areas are 784 acres for the No. 1, 525 acres for the No. 3, 558 acres for the No. 5 and 288 acres for the No. A4, more than 2,000 acres total. However, Pantera believes that the wells on the lease will affect only very small areas with future production, due to the very low current reservoir pressure of only about 15 psi. The estimated drainage areas for the wells based on remaining production expected from the wells are 82 acres, 341 acres, 413 acres and 0

acres, respectively.¹ Pantera believes that the drainage calculations based on future production demonstrate that an additional well is necessary to recover reserves remaining under the Morton lease.

According to Pantera, exceptions to Rule 38 are often necessary in this very low-pressured field, and approximately 150 Rule 38 density exceptions have been approved administratively in the Panhandle, West Field in the past 10 years. Pantera also pointed out that ConocoPhillips has several wells in the immediate area on substandard acreage.

The proposed location for the No. 6 well is in the southwest quarter of Section 202, 330 feet from both the south and west section lines. Pantera believes the location is appropriate because it accommodates the center pivot irrigation system in place in Section 202. The proposed location is centered between existing producing wells and is expected to encounter 300-400 feet of gross pay thickness. Wells to the west of Section 202 have produced far greater volumes of gas than wells to the east of the section, indicating a difference in reservoir quality in the area. The proposed location is based on a combination of surface obstructions and expected reservoir quality.

ConocoPhillips

ConocoPhillips did not present a direct case, but did cross-examine Pantera's witnesses. ConocoPhillips does not believe that Pantera met its burden of proof in showing that the exception to Rule 38 is necessary to prevent waste or protect correlative rights. Additionally, Pantera has recently completed drilling the Morton No. 1-R only 90 feet away from the Morton No. 1. The expected performance of this replacement well was not considered by Pantera in any of its calculations for the Morton lease, making Pantera's estimates invalid.

EXAMINERS' OPINION

Pantera's 1920 acre Morton Lease has sufficient acreage for three wells under the 640 acre density rule for the Panhandle, West Field. Here, Pantera applies for a fourth well, Well No. 6, seeking a density exception under Statewide Rule 38 for its Morton lease. Because the tract is of standard size (actually greater than standard) Pantera is entitled to prove its need for a Statewide Rule 38 exception based on either prevention of waste or prevention of confiscation. The examiners recommend that the application be denied because Pantera failed to show that the proposed Morton No. 6 is necessary to prevent confiscation or waste.

An owner of oil and gas is entitled to a reasonable opportunity to recover the reserves underlying his tract, and any denial of that opportunity amounts to confiscation.

¹ The No. A4 is no longer producing and has no calculated remaining reserves.

An applicant seeking an exception to Statewide Rule 38 based on prevention of confiscation must show that:

- 1) it is not feasible for the applicant to recover its fair share of hydrocarbons currently in place under its lease from regular locations, and
- 2) that the proposed irregular location is reasonable. A mineral owner's fair share is measured by the currently recoverable reserves under his property.

Pantera's confiscation case is inconsistent and cannot be relied upon. On one hand, Pantera argues that current recoverable reserves under the Morton lease are 22 BCF of gas. To arrive at this figure, Pantera simply subtracted gas produced from under the lease (by its own wells and by offsetting wells) from original gas-in-place beneath the lease of 102 BCF. No explanation was given as to Pantera's method of determining how much gas from each offsetting well was actually produced from under the Morton lease. On the other hand, Pantera's calculated drainage areas for the wells which have produced from the lease exceeds 2,000 acres (784 acres for the No. 1, 525 acres for the No. 3, 558 acres for the No. 5 and 288 acres for the No. A4). If the wells on the lease have already drained an area in excess of the lease area, then it is illogical to argue that 22 BCF of gas remains under the lease. At this time, the reservoir pressure has declined from 430 psi to about 15 psi, or about 97%. Yet Pantera argues that about 20% of the original gas-in-place remains under the lease.

Additionally, Pantera failed to include the expected performance of the Morton No. 1-R, the replacement well recently drilled only 90 feet away from the Morton No. 1. The examiners do not believe that Pantera provided credible evidence of currently recoverable reserves, such as material balance calculations based on current pressure. As previously stated, a mineral owner's fair share is determined by the currently recoverable reserves under his lease. Without such determination, the confiscation case fails.

An applicant seeking an exception to Statewide Rule 38 based on waste must establish the following:

- 1) that unusual conditions, different from conditions in adjacent parts of the field, exist under the tract for which the exception is sought;
- 2) that, as a result of these conditions, a substantial volume of hydrocarbons will be recovered by the well for which a permit is sought that would not be recovered by any existing well or by additional wells drilled at regular locations.

Pantera did not show that an exception to Rule 38 is necessary to prevent waste. First, Pantera did not show any unusual conditions under the Morton lease. Pantera's only argument of an unusual condition was that wells to the west of the proposed location have generally produced more gas per section to date than wells to the east. It was not shown

that this variation in production is unusual to this specific area of the Panhandle, West Field.

Pantera presented a map depicting the calculated radial drainage areas of all wells in the area, based on each well's cumulative production. This map (Attachment 2, Pantera Exhibit 10) shows small areas of undrained reservoir. However, the map does not take into consideration no-flow boundaries between wells which are created by interference between the wells. These no-flow boundaries will alter the shape of a well's drainage area. Further, the proposed location for Well No. 6 is shown to be within the area already drained by the Morton Well No. 1.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. On August 4, 2010, Pantera Energy Company filed Form W-1 to drill its Morton Well No. 6 in the Panhandle, West Field in Moore County. The proposed well will be the fourth producing well on the 1,920 acre Morton lease.
3. Field rules for the Panhandle, West Field require 640 acres per well. The proposed No. 6 well requires an exception to Statewide Rule 38.
4. The subject application for exception to Statewide Rule 38 was protested by ConocoPhillips Company, an offsetting operator to the north of the proposed well.
5. Pantera did not show that the Morton No. 6 is necessary to prevent confiscation or waste.
 - a. Pantera's evidence indicates that the wells which have produced from the Morton lease have drained an area in excess of the 1,920 acres on the Morton lease. This evidence is contradicted by Pantera's estimate that there are 22 BCF of current recoverable reserves beneath the tract.
 - b. In its estimate of future recovery for wells draining the Morton lease, Pantera did not consider expected performance of its recently drilled Well No. 1-R on the Morton lease.
 - c. Pantera did not provide a reliable estimate of currently recoverable reserves under the Morton lease.
 - d. Reservoir pressure has declined approximately 97% from an original pressure of 430 psi, which is in conflict with Pantera's estimate that approximately 20% of original gas-in-place remains under the lease.

- e. There is no unusual reservoir condition at the location of the proposed Well No. 6 on the Morton lease.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely issued by the Railroad Commission to appropriate persons legally entitled to notice.
2. All things necessary to the Commission attaining jurisdiction over the subject matter and the parties in this hearing have been performed.
3. Approval of the requested Rule 38 exception is not necessary to prevent waste or prevent confiscation.

EXAMINERS' RECOMMENDATION

Based on the above findings and conclusions, the examiners recommend denial of the requested Rule 38 exception.

Respectfully submitted,



Donna K. Chandler
Technical Examiner



Marshall F. Enquist
Hearings Examiner