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RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 03-0254292

THE APPLICATION OF HILCORP ENERGY COMPANY FOR PERMANENT GAS FIELD CLASSIFICATION FOR THE VIDOR AMES (YEGUA EY) FIELD, ORANGE COUNTY, TEXAS

Heard by: Andres J. Trevino, P.E., Technical Examiner

Hearing Date: December 14, 2007

Appearances:	**Representing:**
Dale E. Miller	Hilcorp Energy Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Hilcorp Energy Company requests that all wells in the Vidor Ames (Yegua EY) Field be permanently classified as gas wells, effective the date of first production for each well

This application was unprotested and the examiner recommends approval.

DISCUSSION OF EVIDENCE

The Vidor Ames (Yegua EY) Field is currently an associated-49B gas field with the only "oil well" being the Reid, D. Well No. 1. This well was classified as a permanent gas well by Commission Final Order No. 03-0252995, on October 23, 2007. The Vidor Ames (Yegua EY) Field was discovered in 1989 at a depth of 12,830. The field was changed to 49B on October 10, 2004 with the reclassification of the Reid, D. No. 1 to an oil well when the well's GOR was calculated as less than 10,000. There are eight producing gas wells and one saltwater disposal well on the proration schedule and an additional well recently completed by Hilcorp not yet on the schedule.

All wells currently active in the Vidor Ames (Yegua EY) Field has been classified as a gas wells through administrative review and approval, technical hearing determination or by meeting the statutory gas well classification with a gas/oil ration exceeding 100,000 cubic feet per barrel. The latest well completed by Hilcorp, the Mil-Vid #11 was administratively granted permanent gas well classification on November 15, 2007.

The majority of the wells currently active in the field six out of the eight wells and one plugged well (Paret #1) have had PVT analysis performed. All PVT analysis reports indicate all wells tested are producing from a retrograde condensate reservoir.

The PVT analysis was performed on a fluid sample taken from the wells from January 1990 to as late as October 2007. The samples were recombined to the reservoir temperatures of 268°F to 305°F and reservoir pressures of 8,266 to 11,815 psig. The recombined fluids were evaluated during a Constant Composition Expansion process. The reservoir fluids were single phase gas until the reservoir pressure reached 2,912 to 7,375 psig, the retrograde dew point pressure. A constant volume depletion studies were performed on the reservoir fluid to simulate wellstream production below the dew point.

Hilcorp believes the well should be permanently classified as a gas field because the small volume of liquid in the reservoir below dew point is not mobile and will not be recovered as liquid. The constant volume depletion study shows that the maximum percentage of hydrocarbon pore space occupied by retrograde liquid will range from 0.11% a maximum of 28.51%, when the reservoir pressure is between 1,000 to 3,503 psig. Published literature indicates that liquid hydrocarbons in a reservoir are essentially immobile until saturations of up to 35% are reached.

The PVT analysis confirms that the wells produce from a retrograde condensate reservoir. The well stream contains no more than 9.61 mole% heptanes plus and no less than 65.05 mole% methane. Typical retrograde gases contain less than 12.5 mole % heptanes plus and more than 70 mole% methane. The initial liquid API gravity of the wells range from 39.7° to 60.3° API. Typical retrograde stock tank liquid gravities range between 40° and 60° API and can be lightly colored, brown, orange, greenish, or water-white.

Statewide Rule 79 defines a gas well as "....A well which produces hydrocarbon liquids, a part of which is formed by a condensation from a gas phase and a part of which is crude petroleum oil, shall be classified as a gas well unless there is produced one barrel or more of crude petroleum oil per 100,000 cubic feet of natural gas; and that the term "crude petroleum oil" shall not be construed to mean any liquid hydrocarbon mixture or portion thereof which is not in the liquid phase in the reservoir, removed from the reservoir in such liquid phase, and obtained at the surface as such." Hilcorp believes that because the liquid hydrocarbons in this reservoir are immobile, the liquid produced at the surface does not meet the definition of "crude petroleum oil". Instead, the produced liquid is a product of condensation and should not be used as a basis for classification of the well as an oil well.

The Vidor Ames (Yegua EY) Field has produced 95.6 BCF of gas and 6,013,901 BC. The producing gas-liquid ratio about 15,896 cubic feet per barrel.

FINDINGS OF FACT

1. Notice of this hearing was given to all affected persons at least ten days prior to the date of hearing. No protests were received.

2. The Vidor Ames (Yegua EY) Field is currently an associated-49B gas field with the only "oil well" is the Reid, D. Well No. 1. This well was classified as a permanent gas well in Final Order No. 03-0252995, on October 23, 2007.

3. All wells currently active in the Vidor Ames (Yegua EY) Field has been classified as a gas wells through administrative review and approval, technical hearing determination or by meeting the statutory gas well classification with a gas/oil ration exceeding 100,000 cubic feet per barrel.

4. All wells in the Vidor Ames (Yegua EY) Field should be permanently classified as gas wells.

   a. The original reservoir pressure was 11,240 psig in the discovery well.

   b. The PVT analysis for the Mil-Vid No. 1ST indicated a retrograde dew point at 7,375 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 11,240 psia and 288° F.

   c. The PVT analysis for the Mil-Vid No. 3R indicated a retrograde dew point at 7,090 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 11,815 psia and 280° F.

   d. The PVT analysis for the Reid, D. No. 1 indicated a retrograde dew point at 7,310 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 10,848 psia and 270° F.

   e. The PVT analysis for the Williams No. 1 indicated a retrograde dew point at 4,995 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 10,771 psia and 277° F.

   f. The PVT analysis for the Williams No. 2 indicated a retrograde dew point at 5,723 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 11,200 psia and 268° F.

   g. The PVT analysis for the Paret No. 1 (P&A) indicated a retrograde dew point at 2,912 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 10,370 psia and 290° F.

h. The PVT analysis for the Mil-Vid No. 11 indicated a retrograde dew point at 4,757 psig. The results of the CCE indicates the reservoir fluid exists as a single phase gas at the current reservoir pressure and temperature of 11,275 psia and 290° F.

5. The Vidor Ames (Yegua EY) Field has a designated interval of 13,135 to 14,462 feet and contains consolidated sandstones, siltstones and shales.

6. Liquid hydrocarbons produced at the surface from the subject wells are the product of condensation and should not be classified as crude petroleum oil.

7. Because the liquids produced from the wells are not crude petroleum oil, the subject wells should be classified as a gas wells.

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. All wells ever completed in the Vidor Ames (Yegua EY) Field are gas wells, effective the date of first production, based on the definition of a gas well pursuant to Statewide Rule 79 (a) (11) (C).

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends that the Vidor Ames (Yegua EY) Field be permanently classified as a gas field and all existing and future wells completed in the field be classified a permanant gas wells, effective the date of first completion.

Respectfully submitted,

for Donna Chandler

Andres J. Trevino, P.E.
Technical Examiner