



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL & GAS DOCKET NO. 10-0316818**

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**APPLICATION OF 4P ENERGY TEXAS, LLC (953803) FOR PERMANENT GAS WELL CLASSIFICATION FOR ITS ARMSTRONG WELL NO. 2007H, STILES RANCH (GRANITE WASH CONS) FIELD, WHEELER COUNTY, TEXAS**

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**HEARD BY:** Petar Buva – Technical Examiner  
Jennifer N. Cook – Administrative Law Judge

**HEARING DATES:** February 13, 2019

**RECORD CLOSED:**

**CONFERENCE DATE:** April 9, 2019

**APPEARANCES:** **REPRESENTING:**

**APPLICANT:**

Greg Cloud, Consultant

4P Energy Texas, LLC

### **EXAMINERS' REPORT AND RECOMMENDATION**

#### **STATEMENT OF THE CASE**

This is the application of 4P Energy Texas, LLC ("4P") to reclassify Well No. 2007H as a gas well in the Armstrong Lease, Stiles Ranch (Granit Wash Cons) Field ("Field"), Wheeler County, Texas. The operator asserts that the Form W-2, *Oil well Potential Test*, was erroneously submitted for the subject well at the time of its completion classifying it as oil well. The subject well's initial gas to oil ratio ("GOR") of 37,735:1 and the fact that all other wells in the same field are classified as gas wells indicate that the subject well should be classified as gas well. The application was not protested. The Technical Examiner and Administrative Law Judge (collectively, "Examiners") recommend approval of the application.

The subject well was completed on August 2, 2016 and classified as an oil well. At the hearing held on February 13, 2019, 4P presented the evidence that Well No. 2007H meets the gas well classification criteria, as established in the Commission's memorandum ("2006 Commission Memo"), dated August 3, 2006, titled "Change in administrative determination policy for gas well classification."

The 2006 Commission Memo outlines the paths to reach a gas well classification and states: "A well would be administratively classified as a gas well if the heptanes plus

(C7+) mol percent of a compositional analysis is less than 11% [mol percent]. The change is supported by research published by Phillip L. Moses in the Journal of Petroleum Technology July 1986 *Engineering Applications of Phase Behavior of Crude Oil and Condensate Systems* and William D. McCain, Jr. in the *Properties of Petroleum Fluids Second Edition* © 1990." The evidence shows that the subject well has a 37,735:1 GOR and as such Well No. 2007H has met the 2006 Commission Memo criteria.

Notice was given to the Service List under Oil & Gas Docket No. 08-0306954, which includes the operators in the Stiles Ranch (Granite Wash Cons) Field, Wheeler County, Texas. The application was not protested. The Examiners recommend that the permanent gas well classification be granted for the subject well and over-production be cancelled.

### **DISCUSSION OF THE EVIDENCE**

4P requested a hearing on December 6, 2019. A hearing was held on February 13, 2019. At the hearing 4P submitted evidence included a completed W-2 Form, the oil proration schedule, the well's perforated zone, the reservoir and geologic formation data, the key reservoir characteristics, a production graph in the early life of each well, and a one-page summary sheet of heptanes plus (C7+), and API gravity values for producing oil wells in the Field.

The Examiners assessed the well data based on the 2006 Commission Memo, research from Dr. Philip Moses (1986) and Dr. William McCain (1990 and 2011). Based on the 2006 Commission Memo, a well would be administratively classified as a gas well when:

- the GOR has met or exceeded 100,000 cubic feet per barrel of gas (cf/bbl.) based on ASTM testing and the well meets the requirements of Statewide Rule 79;
- the GOR is less than 100,000 cf/bbl, but the GOR exceeds 12,500 cf/bbl, and specific criteria such as API gravity, liquid color, boiling point, etc. also meet specific criteria;
- the GOR is exceeding 100,000 cf/bbl., but the ASTM testing is inconclusive. As a confirmation, a pressure, volume, temperature ("PVT") test can be run in the laboratory and the test results submitted to prove a well is a gas well;
- heptanes plus (C7+) mol percent of a compositional analysis is less than 11% mol percent.

Although not part of the 2006 Commission Memo, research from Dr. Philip Moses (from 1986) and Dr. William D. McCain (from 1990 and 2011) indicate a heptane plus (C7+) fraction of less than 11.5 mol percent will typically correlate to a Gas-Liquid Ratio (GLR) of about 3,000 to 3,300 cf/bbl as a differentiator between volatile oil and retrograde gas reservoir fluid types. Based on initial completion data from a well, permanent gas well classification has been granted for wells using the 2006 Commission Memo criteria with supporting documentation as outlined by Dr. McCain's and Dr. Moses' research.

Well No. 2007H, API No. 483-33915, was completed on August 2, 2016. True vertical depth of the producing interval is from 12,894 feet to 12,957 feet. The initial GOR at the time of completion was 37,735 and the API gravity was 63.2 degrees as stated on the Form W-2. The subject well is one of eight wells completed in the Stile Ranch (Granite Wash Cons) Field. All the wells in this field are classified as gas wells, except Well No. 2007H, which is the subject of this reclassification request.

The Examiners conclude the subject well meets the criteria for gas well classification based on the data submitted as evidence. The Examiners recommend the specified well be permanently reclassified as a gas well.

At the hearing, 4P agreed on the record that pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order can be final and effective on the date a Master Order relating to this Final Order is signed.

### **FINDINGS OF FACT**

1. 4P requests to permanently reclassify Well No. 2007H, API 483-33915, the Armstrong Lease (09542), Wheeler County, Texas, as a gas well.
2. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of the hearing. No protests were received.
3. 4P requested a hearing in a letter sent to the Commission dated December 6, 2018.
4. The gas well classification criteria was established in the Commission's memorandum ("2006 Commission Memo"), dated August 3, 2006, titled "Change in administrative determination policy for gas well classification."
5. Well No. 2007H, API No. 483-33915, was completed on August 2, 2016. The producing interval is from 12,894 feet to 12,957 feet.
6. At the time of completion, the operator filed a Form W-2 for Well No. 2007H whereby the subject well was classified as an oil well with a GOR of 37,735 and an API gravity of 63.2 degrees.
7. The subject well is the only oil well out of eight total wells completed in the Stile Ranch (Granite Wash Cons) Field.
8. 4P agreed in writing or on the record that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), the Final Order can be final and effective on the date a Master Order relating to the Final Order is signed.

### **CONCLUSIONS OF LAW**

1. Resolution of the subject application 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. Pursuant to §2001.144 (a)(4)(A) of the Texas Government Code and the agreement of the applicant on the record or in writing, the Final Order can be final and effective when a Master Order relating to the Final Order is signed by the Commissioners.

### **EXAMINERS' RECOMMENDATION**

Based on the above findings of facts and conclusions of law, the Examiners recommend permanent reclassification of Well No. 2007H, the Armstrong Lease (09542), Stiles Ranch (Granit Wash Cons) Field, Wheeler County, Texas to a gas well and cancellation of the overproduction from the subject lease listed in the Findings of Facts.

Respectfully submitted,



Petar Buva  
Technical Examiner



Jennifer N. Cook  
Administrative Law Judge