



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

OIL & GAS DOCKET NO. 08-0302994

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THE APPLICATION OF P. O. & G. OPERATING, LLC TO AMEND AND  
RENUMBER THE PERMANENT FIELD RULES FOR THE PECOS VALLEY  
(DEVONIAN 5400) FIELD, PECOS COUNTY, TEXAS

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HEARD BY: Paul Dubois – Technical Examiner  
Clayton J. Hoover – Administrative Law Judge

HEARING DATE: March 1, 2017

CONFERENCE DATE: April 4, 2017

### APPEARANCES:

**APPLICANT:**

Dale Miller

P. O. & G. Operating, LLC

### EXAMINERS' REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

P. O. & G. Operating, LLC ("PO&G") seeks to amend and renumber the permanent field rules for the Pecos Valley (Devonian 5400) Field in Pecos County, Texas. Specifically, PO&G requests the following amendments:

1. Adopt a correlative interval from 5,404 feet to 5,532 feet.
2. Reduce the lease line spacing from 660 feet to 330 feet, and reduce the between well spacing from 1,200 feet to 467 feet.
3. Standard drilling and proration units will remain at 80 acres, and a provision allowing for optional 20 acre units will be adopted.
4. The allocation formula for oil wells will be changed from 25 percent per well and 75 percent acreage, to 90 percent per well and 10 percent acreage.

The application was not protested. The Technical Examiner and Administrative Law Judge ("Examiners") recommend the application be granted and the field rules amended.

### DISCUSSION OF THE EVIDENCE

PO&G is an operator of wells in the Pecos Valley (Devonian 5400) Field in Pecos County, Texas. The field, located about 7 miles west of Buena Vista, was discovered on July 23, 1953 at a depth of 5,771 feet. Field rules were established on November 17, 1958, through Commission Special Order No. 8-39,202. The original field rules included the following:

1. 660-foot lease line spacing and 1,200-foot between well spacing.
2. 80-acre standard proration units and 40-acre tolerance.
3. Allowable allocation based on 75 percent acreage and 25 percent per well.

Field Rule Nos. 1 and 2 survive intact to this day. However, Field Rule No. 3 above was amended in Oil & Gas Docket No. 08-0213184 on April 15, 1997,<sup>1</sup> in which production was allocated based on productive acreage. By this present application, PO&G seeks to revert the oil allocation to a two-factor formula based on 90 percent per well and 10 percent acreage.

47 wells were completed in the field. Of these, 41 have always been classified oil wells, one was always a gas well, and five have been reclassified from oil to gas. Most of the wells were drilled in the late 1950s and early 1960s, and a few wells were since that time. The most recent drilling activity was in April 2011. PO&G plans to begin redeveloping the field. Initial potential tests from wells in the field varied greatly, from 623 barrels of oil per day to 1 barrel of oil per day. Cumulative production is more than 10 million barrels of hydrocarbon liquids (oil and condensate) and more than 49 billion cubic feet of gas.

PO&G proposes to establish a correlative interval for the Pecos Valley (Devonian 5400) Field from 5,404 feet to 5,532 feet as shown on the log of the Hunt Oil Company - Pecos Valley Lease, Well No. 5-8 (API No. 42-371-36694), Section 28, Block 3, H & TC RR CO./ R.L. Harris A-6642, Pecos County, Texas. The gamma ray, porosity and density log tracks (Ex. No. 13) indicate distinct breaks at the upper and lower boundaries of the proposed correlative interval.

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<sup>1</sup> See Oil & Gas Docket No. 08-0213184, The Application of Hunt Oil Company to Determine the Productive Acreage and to Amend the Allocation Formula for the Pecos Valley (Devonian 5400) Field, Pecos County, Texas. However, according Mr. Miller, it is not clear if the productive acreage allocation established in that case was ever put into practice, as the proration schedules present acreage assignments that are internally inconsistent and different from those in the Final Order for Oil & Gas Docket No. 08-0213184.

PO&G calculates that the recoverable oil in place is about 204 stock tank barrels per acre-foot of reservoir, yielding an anticipated 299,680 recoverable barrels of oil for an 80-acre unit. These calculations are based on an average porosity of 24 percent, water saturation of 29.5 percent, formation volume factor of 1.415 reservoir barrels per stock tank barrel, recovery factor of 22 percent, and a net effective pay thickness of 49 feet.

Analysis of production data from 31 wells indicates the drainage area varies from less than one acre to 94 acres. About 16 of those 31 wells exhibited drainage areas less than 20 acres, and only two of those 31 wells exhibited drainage areas greater than 80 acres. Based on this analysis, PO&G asserts that 80-acre standard units and 20-acre optional units are appropriate for this field.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of the hearing.
2. The Pecos Valley (Devonian 5400) Field is located about 7 miles west of Buena Vista, Pecos County, Texas. The field was discovered on July 23, 1953 at a depth of 5,771 feet.
3. Field rules were established on November 17, 1958, through Commission Special Order No. 8-39,202. The original field rules included the following:
  - a. 660-foot lease line spacing and 1,200-foot between well spacing.
  - b. 80-acre standard proration units and 40-acre tolerance.
  - c. Allowable allocation based on 75 percent acreage and 25 percent per well.
4. The allowable allocation formula was amended in Oil & Gas Docket No. 08-0213184 on April 15, 1997, in which production was allocated based on productive acreage.
5. 47 wells were completed in the field, including 41 oil wells, one gas well, and five wells that have been reclassified from oil to gas.
  - a. Most of the wells were drilled in the late 1950s and early 1960s
  - b. Initial potential tests from wells in the field varied greatly, from 623 barrels of oil per day to 1 barrel of oil per day.
  - c. Cumulative production is more than 10 million barrels of

hydrocarbon liquids (oil and condensate) and more than 49 billion cubic feet of gas.

6. The recoverable oil in place is estimated to be about 204 stock tank barrels per acre-foot of reservoir, yielding an anticipated 299,680 recoverable barrels of oil for an 80-acre unit. These calculations are based on:
  - a. Average porosity of 24 percent;
  - b. Water saturation of 29.5 percent;
  - c. Formation volume factor of 1.415 reservoir barrels per stock tank barrel;
  - d. Recovery factor of 22 percent; and
  - e. Net effective pay thickness of 49 feet.
7. The drainage area varies from less than one acre to 94 acres, and most wells drain between 20 and 80 acres.
8. At the hearing, the applicant agreed on the record that a Final Order in this case is to be effective when the Master 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 §§ 1.43 and 1.45.
3. The proposed field rules for the Pecos Valley (Devonian 5400) Field will prevent waste, protect correlative rights, and promote the orderly development of the field.
4. Pursuant to §2001.144(a)(4)(A), of the Texas Government Code, and the agreement of the applicant, this Final Order is effective when a Master Order relating to this Final Order is signed on April 4, 2017.

**EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the Examiners recommend the field rules for the Pecos Valley (Devonian 5400) Field in Pecos County, Texas, be amended and renumbered as set out in the attached Final Order.

Respectfully submitted,



Paul Dubois  
Technical Examiner



Clayton J. Hoover  
Administrative Law Judge