



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0288137

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**APPLICATION OF CAPSTONE NATURAL RESOURCES, LLC, TO CONSOLIDATE THE BLOCK A-34 (GLORIETA, LOWER) FIELD INTO THE BLOCK A-34 (GLORIETA) FIELD AND TO AMEND FIELD RULES FOR THE BLOCK A-34 (GLORIETA) FIELD, ANDREWS COUNTY, TEXAS**

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**HEARD BY:** Paul Dubois – Technical Examiner  
Michael Crnich – Hearings Examiner

**DATE OF HEARING:** April 28, 2014

**APPEARANCES:**

Bill Spencer  
Jim Clark  
Carl Piowaty

**REPRESENTING:**

Capstone Natural Resources, LLC

### EXAMINER'S REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

This is the application of Capstone Natural Resources, LLC, (Capstone) to Consolidate the Block A-34 (Glorieta, Lower) Field into the Block A-34 (Glorieta) Field, and to Amend Field Rules for the Block A-34 (Glorieta) Field in Andrews County, Texas. Current field rules for the Block A-34 (Glorieta) Field were adopted on November 13, 1963 (Docket No. 8-53,105) and include the following:

1. 600 foot lease line spacing and 1,200 foot between well spacing;
2. 80 acre standard drilling and proration units;
3. Acreage-based allowables; and,
4. Provisions for setting and cementing surface and production casing.

The existing Rule No. 4 is obsolete as casing and cementing requirements are now governed by Statewide Rule 13; thus Rule No. 4 will be deleted. Capstone proposes to

significantly modernize the rules to include the following:

1. Establish a correlative interval from 5,856 feet to 6,684 feet;
2. 330 feet lease line spacing, no between well spacing limitation, and a suite of horizontal well spacing rules;
3. 80 acre standard drilling and proration units and 20 acre optional units;
4. Salvage classification for oil wells; and
5. Provisions for stacked lateral wells.

Capstone also requested that all overproduction in the field be cancelled. The application is not protested.

The examiners recommend that the field rules for correlative interval, 330 feet lease line spacing and no between well spacing, 80 acre standard units with 20 acre optional units, and salvage classification for oil wells be adopted. The examiners do not recommend that the proposed field rules for horizontal well and stacked lateral wells be adopted; the Applicant did not make a case for the applicability or necessity of these rule provisions. The Applicant does not consider this recommendation to be adverse.

### **DISCUSSION OF THE EVIDENCE**

The Block A-34 (Glorieta) Field was discovered in Andrews County on February 7, 1955, at a depth of 5,910 feet. About two dozen wells have been drilled in the field, and there are 10 producing oil wells on the current proration schedule. Three of these are operated by Pitts Energy Company, whose leasehold is west of Capstone's. Also, two wells are listed on the proration schedule as being operated by BOPCO, L.P.; Capstone has acquired these wells and is now the current operator.

The Block A-34 (Glorieta) field has reported a cumulative production of 5,461,618 BO and 287,505 MCF gas. Monthly production is currently about 15,000 BO and 350 MCF from 10 to 12 wells. The proration schedule indicates the field was assigned a maximum efficient rate (MER) allowable of 142 BOPD. The origins of the MER are not clear; the matter is not discussed in the order establishing field rules for the field.

The Block A-34 (Glorieta, Lower) Field was discovered on October 10, 1985, at a depth of 6,054. It is not apparent why the Block A-34 (Glorieta, Lower) Field was approved as a separate field as it is within the area established by Block A-34 (Glorieta) wells. Nonetheless, field rules for the Block A-34 (Glorieta, Lower) Field were established in Final Order No. 8-86,927 and were rescinded on October 5, 1987, in Final Order No. 8-90,629.

The field is currently under Statewide Rules. There are no wells carried on the current proration schedule for this field. The cumulative production was 21,289 BO and 3,600 MCF gas. The top allowable was 184 BOPD.

The field is an anticline structure, with a saddle separating local structural highs in the northern and southern parts of Capstone's acreage. The Glorieta Formation is dolomite, with hydrocarbon accumulations in intervals with developed porosity. Capstone interprets the field to be composed of four members, A (with an upper and lower subunit), B, C, and D. Most production is from the C zone. The Block A-34 (Glorietta, Lower) Field appears to have been a new field designation for the C zone. These four zones are mappable and continuous across the field area. The correlative interval encompassing these zones is shown on the log of the Capstone Deford-White Oil Unit, Well No. 3 (API No. 42-003045465), in the depth interval from 5,856 feet to 6,684 feet.

The reservoir exhibits a strong water drive. The field produces very little gas, and 90 percent water cuts are found in some of the wells. The Glorieta C zone includes net pay thicknesses from 65 to 80 feet, and it does not appear that the various producing zones are in hydraulic communication with each other. Capstone has switched to producing its wells using electric submersible pumps. These pumps enable Capstone to pump off larger volumes of water, which results in increased oil production.

Capstone provided drainage area calculations for two wells. The Deford White Oil Unit No. 1, completed in the C zone, has 75 feet of net pay, 18 percent porosity, and 35 percent water saturation. The well has an estimated ultimate recovery (EUR) of 1,041 MMBO EUR from curve. Capstone estimates a 70 percent recovery factor. Based on this information, Capstone estimates the well exhibits a drainage area of 22.9 acres. The J.M. White No. 2 well is also completed in the C zone. This well has 81 feet of net pay, 18 percent porosity, and 35 percent water saturation. The EUR is 805 MMBO and estimated recovery is 70 percent. Based on this information, Capstone estimates the well drains about 16.4 acres, a smaller area based on its better structural position than the Deford White no. 1.

Another Glorieta Formation Field, the Harris Field, is 3 miles to the northwest. The Harris and the Block A-34 (Glorietta) Field are stratigraphically equivalent. However, the Harris Field does not have a water drive. The Harris Field has special field rules that allow for 330 foot lease line and 600 foot between well spacing, and 40 acre units with 10 acre options.

In the Block A-34 (Glorietta) Field the Commission has approved eight (8) density exceptions to Statewide Rule 38, and one application is pending. In addition, the Commission has granted MER allowables to three wells in the field, ranging from 225 to 270 BOPD. Thus the existing standard 80 acre density and 142 BOPD MER are not sufficient to efficiently produce the field without waste. Because the field produces almost no gas, Capstone requests the field be classified as salvage, which will enable it to produce oil faster, preventing existing reserves from being trapped in the structural attic and lost to waste. Because of the bottom water drive, Capstone asserts that producing these wells at capacity will not negatively affect ultimate recovery. Capstone also notes that the Block A-34 (Glorietta) Field directly overlies the Block A-34 (San Andres) Field,

which was granted salvage classification in 2013 (Docket No. 08-0282689).

Because the existing MER allowable is insufficient to cover production, through June 2014, Capstone has accumulated 15,808 bbl overproduction of oil on its J.M. White Lease (No. 11303) and 1,874 bbl oil on its Deford-White Oil Unit (No. 31898).

### **FINDINGS OF FACT**

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the hearing.
2. The hearing was not protested.
3. The Block A-34 (Glorieta) Field was discovered in Andrews County on February 7, 1955, at a depth of 5,910 feet.
  - a. The field has four zones (A, B, C, and D), and zone C is the most productive.
  - b. About two dozen wells have been drilled in the field, and there are 10 producing oil wells on the current proration schedule.
  - c. The field has reported a cumulative production of 5,461,618 BO and 287,505 MCF gas.
  - d. Monthly production is currently about 15,000 BO and 350 MCF from 10 to 12 wells.
  - e. The proration schedule indicates the field was assigned a maximum efficient rate (MER) allowable of 142 BOPD.
4. The Block A-34 (Glorieta, Lower) Field was discovered on October 10, 1985, at a depth of 6,054.
  - a. The Block A-34 (Glorieta, Lower) Field was approved as a separate field as it is within the area established by Block A-34 (Glorieta) wells, specifically zone C.
  - b. The field is currently under Statewide Rules.
  - c. There are no wells carried on the current proration schedule for this field.
  - d. The cumulative production was 21,289 BO and 3,600 MCF gas.
  - e. The top allowable was 184 BOPD.

5. The correlative interval encompassing the four (4) Glorieta zones is shown on the log of the Capstone Deford-White Oil Unit, Well No. 3 (API No. 42-003045465), in the depth interval from 5,856 feet to 6,684 feet.
6. The Block A-34 (Glorieta) Field exhibits a strong water drive.
7. The field produces very little gas, and 90 percent water cuts are found in some of the wells.
8. The Glorieta C zone includes net pay thicknesses from 65 to 80 feet.
9. Capstone has switched to producing its wells using electric submersible pumps, which enable Capstone to pump off larger volumes of water and increased oil production.
10. Capstone's drainage acreage estimates are reasonable and support its request for 80 acre units with 20 acre optional units.
11. The existing MER allowable is insufficient to cover production, and through June 2014, Capstone has accumulated 15,808 bbl overproduction of oil on its J.M. White Lease (No. 11303) and 1,874 bbl oil on its Deford-White Oil Unit (No. 31898).
12. Classifying the gas wells as salvage will not harm ultimate production.
13. The field has not been developed with any horizontal wells, and the Applicant did not indicate that horizontal wells were planned or contemplated for the future.
14. Adopting as permanent the field rules for correlative interval, 330 feet lease line spacing, no between well spacing limitation, 80 acre standard units with 20 acre optional units, and salvage classification for oil wells will reduce waste, protect correlative rights, and promote the orderly development of the field.

#### **CONCLUSIONS OF LAW**

1. Proper notice of this hearing was given to all persons legally entitled to notice.
2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
3. The proposed field rules for correlative interval, 330 feet lease line spacing and no between well spacing, 80 acre standard units with 20 acre optional units, and salvage classification, will reduce waste, protect correlative rights, and promote the orderly development of the field.

**EXAMINERS' RECOMMENDATION**

Based on the above findings and conclusions of law, the examiners recommend adopting as permanent field rules for the Block A-34 (Glorieta) Field and cancelling overproduction, as indicated above.

Respectfully submitted,



Paul Dubois  
Technical Examiner



Michael Crnich  
Hearings Examiner