

THE APPLICATION OF GASTAR EXPLORATION TEXAS, LP TO FOR AN EXCEPTION TO STATEWIDE RULE 13 FOR THE GASTAR WILDMAN TRUST UNIT NO. 3, WELL NO. 8H, HILLTOP RESORT (GLEN ROSE 8498) FIELD, LEON COUNTY, TEXAS

HEARD BY: Andres J. Trevino P.E., Technical Examiner

HEARING DATE: June 14, 2011

APPLICANT:

Richard P. Marshall, Jr.
Robert E. Dreyling

REPRESENTING:

Gastar Exploration Texas, LP

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Gastar Exploration Texas, LP requests that its Gastar Wildman Trust Unit No. 3 Well No. 8H in the Hilltop Resort (Glen Rose 8498) Field be granted an exception to Statewide Rule 13. Gastar requests that it not be required to squeeze additional cement behind a liner, above the productive interval. Gastar further requests that all over production be cancelled for the well.

This application was unopposed and the examiner recommends approval of the requested exception to Statewide Rule 13.

DISCUSSION OF THE EVIDENCE

The Gastar Wildman Trust Unit No. 3 Well No. 8H was drilled by Gastar Exploration on December 25, 2010 as a horizontal well in the Hilltop Resort (Glen Rose 8498) Field. The Hilltop Resort (Glen Rose 8498) Field is an oil field discovered in September 2010 at a depth of 8,499 feet. The W-2 filed for the Gastar Wildman Trust Unit No. 3 Well No. 8H shows an initial potential of 77 BOPD, 67 BWPD and 65 MCFPD. Current production from the well is approximately 50 BOPD and 44 MCFPD. Cumulative production from the well is 12,052 BO and 7,945 MCF of gas.

Gastar Exploration was notified by the Commission's proration department that the well was over produced because the well did not have an allowable as the well was not compliant with Statewide Rule 13.

The Gastar Wildman Trust Unit No. 3 Well No. 8H has 2,830 feet of 9⁵/₈" surface casing with cement circulated from the casing shoe to the ground surface. The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth 2,700 feet. A 7" production casing is set from the surface to 7,900 feet. The top of cement behind the 7" production casing is at approximately 4,594 feet. An un-cemented liner is set from the surface to the terminus point in the horizontal section of the well at a depth of 13,171 feet.

The top of the Glen Rose (productive interval) is found at a depth of approximately 8,207 feet (TVD) in this well. The liner has an anchor packer set at 7,780 feet (TVD) and 11 swell packers spaced 450 feet apart within the horizontal section of the well. The first swell packer in the Glen Rose is located at a depth of 8,342 feet. The interval in the wellbore from 7,900 feet to 8,342 feet is not cemented. Three formations are found adjacent to the uncemented liner, the base of the Edwards, the Paluxy and the Glen Rose. A 2½ mile radius study confirms that the Edwards, the Paluxy and the Glen Rose in the study area are unproductive.

Gastar Exploration does not believe it should be required to perform additional cement remedial work such as a cement squeeze above the Glen Rose to get an allowable. Gastar Exploration believes a cement squeeze is unnecessary as there is no chance of crossflow from productive intervals to unproductive intervals. All productive intervals above 7,900 feet are isolated with cement to surface. All water zones are also isolated with cement behind the casing. Gastar Exploration fears that squeezing cement below the casing shoe at a depth of 7,900 feet may risk the well to possible damage. Reserves will be lost if the well becomes damaged during a workover and has to be plugged.

EXAMINER'S OPINION

The examiner recommends that the exception to Statewide Rule 13 be granted. All productive intervals above 7,900 feet to 4,594 feet are isolated with cement behind the casing. The formations immediately above the productive interval little or no porosity development and are unproductive in the area. Performing a remedial cement squeeze below the casing shoe at 7,900 feet is unnecessary as cross flow will not occur therefore no benefit will be gained by cementing these unproductive formations. Additionally, performing a remedial cement operation risks the well as anytime a well is reentered and tools are lowered and raised within the 8,000 foot well can result in damage occurring to the well, tools and/or equipment.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten (10) days prior to the hearing.

2. The Gastar Wildman Trust Unit No. 3 Well No. 8H is a horizontal well completed in the Hilltop Resort (Glen Rose 8498) Field. The Hilltop Resort (Glen Rose 8498) Field is an oil field discovered in September 2010 at a depth of 8,499 feet.
3. The Gastar Wildman Trust Unit No. 3 Well No. 8H was completed as an oil well. The W-2 filed shows an initial potential of 77 BOPD, 67 BWPD and 65 MCFPD. Current production from the well is approximately 50 BOPD and 44 MCFPD. Cumulative production from the well is 12,052 BO and 7,945 MCF of gas.
4. The Gastar Wildman Trust Unit No. 3 Well No. 8H was drilled by Gastar Exploration on December 25, 2010 as a horizontal well drilled to a measured depth of 13,169 feet.
 - a. The Gastar Wildman Trust Unit No. 3 Well No. 8H has 2,830 feet of 9⁵/₈" surface casing with cement circulated from the casing shoe to the ground surface. The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth 2,700 feet.
 - b. The Gastar Wildman Trust Unit No. 3 Well No. 8H has a 7" production casing is set from the surface to 7,900 feet. The top of cement behind the 7" production casing is at approximately 4,594 feet.
 - c. The Gastar Wildman Trust Unit No. 3 Well No. 8H has an uncemented liner is set from the surface to the terminus point in the horizontal section of the well at a depth of 13,171 feet.
 - d. The liner has an anchor packer set at 7,780 feet (TVD) and 11 swell packers spaced 450 feet apart within the horizontal section of the well. The first swell packer in the Glen Rose is located at a depth of 8,342 feet.
5. Gastar Exploration was notified by the Commission's proration department that the well was over produced because the well did not have an allowable as the well was not compliant with Statewide Rule 13.
6. The top of the Glen Rose (productive interval) is found at a depth of approximately 8,207 feet (TVD) in this well. The horizontal section from 8,342 feet to 13,169 feet is open for production.
7. The interval in the wellbore from 7,900 feet to 8,342 feet is not cemented.

8. Three formations are found adjacent to the uncemented liner, the base of the Edwards, the Paluxy and the Glen Rose. All formations are unproductive within a 2½ mile radius of the subject well.
9. All productive intervals above 7,900 feet are isolated with cement to a depth of approximately 4,594 feet. All water zones are also isolated with cement behind the casing.
10. Performing a remedial cement squeeze below the casing shoe at 7,900 feet is unnecessary as cross flow will not occur therefore no benefit will be gained by cementing these tight, unproductive formations.
11. Performing a remedial cement squeeze risks the well which may cause a loss of reserves if the well is required to be plugged.

CONCLUSIONS OF LAW

1. Proper notice was timely given to all parties entitled to notice pursuant to applicable statutes and rules.
2. All things have occurred and have been accomplished to give the Commission jurisdiction in this case.
3. Approval of the requested exception to Rule 13 for the Gastar Wildman Trust Unit No. 3 Well No. 8H will not cause waste or harm correlative rights.

EXAMINER'S RECOMMENDATION

It is recommended that Gastar Exploration Texas, LP be granted an exception to Rule 13 for its Gastar Wildman Trust Unit No. 3 Well No. 8H. Gastar Exploration is not required to perform a remedial cement squeeze below the casing shoe at 7,900 feet of the well in order to receive an assignment of an allowable, assuming all other required completion papers have been properly filed.

Respectfully submitted,

Andres J. Trevino P.E.
Technical Examiner