



### Completed Interval

FORMATION: NIOBRARA Status: PRODUCING Treatment Type: FRACTURE STIMULATION  
Treatment Date: 12/09/2011 End Date: \_\_\_\_\_ Date of First Production this formation: 01/12/2012  
Perforations Top: 2408 Bottom: 2422 No. Holes: 84 Hole size: 42/100  
Provide a brief summary of the formation treatment: \_\_\_\_\_ Open Hole:

"Safety Meeting.  
Breakdown @ 1,121 psi.  
Total 50,040# 16/30 Daniels Sand.  
Total 50,040# 12/20 Daniels Sand.  
58.25 Tons CO<sub>2</sub>.  
07:55 ST ISIP 741 PSI, 5 MIN 676 PSI, 10 MIN 660 PSI, 15 MIN 649 PSI.  
Max Rate 13.8 bpm, Avg Rate 9.4 bpm.  
Max Pressure 1,121 psi, Avg Pressure 736 psi.  
550 bbl wtr to recover."

This formation is commingled with another formation:  Yes  No  
Total fluid used in treatment (bbl): 550 Max pressure during treatment (psi): 1121  
Total gas used in treatment (mcf): 1001 Fluid density at initial fracture (lbs/gal): \_\_\_\_\_  
Type of gas used in treatment: CARBON DIOXIDE Min frac gradient (psi/ft): \_\_\_\_\_  
Total acid used in treatment (bbl): \_\_\_\_\_ Number of staged intervals: 1  
Recycled water used in treatment (bbl): \_\_\_\_\_ Flowback volume recovered (bbl): \_\_\_\_\_  
Fresh water used in treatment (bbl): \_\_\_\_\_ Disposition method for flowback: \_\_\_\_\_  
Total proppant used (lbs): 100080 Rule 805 green completion techniques were utilized:   
Reason why green completion not utilized: PIPELINE

**Fracture stimulations must be reported on FracFocus.org**

#### Test Information:

Date: 02/07/2012 Hours: 24 Bbl oil: 0 Mcf Gas: 5 Bbl H<sub>2</sub>O: 0  
Calculated 24 hour rate: Bbl oil: 0 Mcf Gas: 5 Bbl H<sub>2</sub>O: 0 GOR: \_\_\_\_\_  
Test Method: FLOW Casing PSI: 80 Tubing PSI: \_\_\_\_\_ Choke Size: 48/64  
Gas Disposition: SOLD Gas Type: DRY Btu Gas: 966 API Gravity Oil: 0  
Tubing Size: \_\_\_\_\_ Tubing Setting Depth: \_\_\_\_\_ Tbg setting date: \_\_\_\_\_ Packer Depth: \_\_\_\_\_

Reason for Non-Production: \_\_\_\_\_

Date formation Abandoned: \_\_\_\_\_ Squeeze:  Yes  No If yes, number of sacks cmt \_\_\_\_\_

\*\* Bridge Plug Depth: \_\_\_\_\_ \*\* Sacks cement on top: \_\_\_\_\_ \*\* Wireline and Cement Job Summary must be attached.

Comment: \_\_\_\_\_

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: WILLIAM F HAYWORTH  
Title: PRESIDENT Date: 7/19/2012 Email: BHAYWORTH@BLACKRAVENENERGY.COM

## Attachment Check List

**Att Doc Num**

**Name**

2233459	FORM 5A SUBMITTED
2233460	OTHER

Total Attach: 2 Files

## General Comments

**User Group**

**Comment**

**Comment Date**

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>

Total: 0 comment(s)