

FORMATION: CODELL Status: COMMINGLED Treatment Type: _____

Treatment Date: _____ End Date: _____ Date of First Production this formation: 04/19/2019

Perforations Top: 8495 Bottom: 15653 No. Holes: 1440 Hole size: _____

Provide a brief summary of the formation treatment: _____ Open Hole:

8495-8730;8888-10179;10252-12692;13326-13853;13890-14055;14652-15653

This formation is commingled with another formation: Yes No

Total fluid used in treatment (bbl): _____ Max pressure during treatment (psi): _____

Total gas used in treatment (mcf): _____ Fluid density at initial fracture (lbs/gal): _____

Type of gas used in treatment: _____ Min frac gradient (psi/ft): _____

Total acid used in treatment (bbl): _____ Number of staged intervals: _____

Recycled water used in treatment (bbl): _____ Flowback volume recovered (bbl): _____

Fresh water used in treatment (bbl): _____ Disposition method for flowback: _____

Total proppant used (lbs): _____ Rule 805 green completion techniques were utilized:

Reason why green completion not utilized: _____

Fracture stimulations must be reported on FracFocus.org

Test Information:

Date: _____ Hours: _____ Bbl oil: _____ Mcf Gas: _____ Bbl H2O: _____

Calculated 24 hour rate: _____ Bbl oil: _____ Mcf Gas: _____ Bbl H2O: _____ GOR: _____

Test Method: _____ Casing PSI: _____ Tubing PSI: _____ Choke Size: _____

Gas Disposition: _____ Gas Type: _____ Btu Gas: _____ API Gravity Oil: _____

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.

FORMATION: FORT HAYS Status: COMMINGLED Treatment Type: _____

Treatment Date: _____ End Date: _____ Date of First Production this formation: 04/19/2019

Perforations Top: 10215 Bottom: 14616 No. Holes: 1440 Hole size: 19/50

Provide a brief summary of the formation treatment: _____ Open Hole:

10215-10216;12728-13295;14087-14175;14526-14616

This formation is commingled with another formation: Yes No

Total fluid used in treatment (bbl): _____ Max pressure during treatment (psi): _____

Total gas used in treatment (mcf): _____ Fluid density at initial fracture (lbs/gal): _____

Type of gas used in treatment: _____ Min frac gradient (psi/ft): _____

Total acid used in treatment (bbl): _____ Number of staged intervals: _____

Recycled water used in treatment (bbl): _____ Flowback volume recovered (bbl): _____

Fresh water used in treatment (bbl): _____ Disposition method for flowback: _____

Total proppant used (lbs): _____ Rule 805 green completion techniques were utilized:

Reason why green completion not utilized: _____

Fracture stimulations must be reported on FracFocus.org

Test Information:

Date: _____ Hours: _____ Bbl oil: _____ Mcf Gas: _____ Bbl H2O: _____

Calculated 24 hour rate: Bbl oil: _____ Mcf Gas: _____ Bbl H2O: _____ GOR: _____

Test Method: _____ Casing PSI: _____ Tubing PSI: _____ Choke Size: _____

Gas Disposition: _____ Gas Type: _____ Btu Gas: _____ API Gravity Oil: _____

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.

FORMATION: NIOBRARA Status: COMMINGLED Treatment Type: _____

Treatment Date: _____ End Date: _____ Date of First Production this formation: 04/19/2019

Perforations Top: 14215 Bottom: 14486 No. Holes: 1440 Hole size: 19/50

Provide a brief summary of the formation treatment: _____ Open Hole:

This formation is commingled with another formation: Yes No

Total fluid used in treatment (bbl): _____ Max pressure during treatment (psi): _____

Total gas used in treatment (mcf): _____ Fluid density at initial fracture (lbs/gal): _____

Type of gas used in treatment: _____ Min frac gradient (psi/ft): _____

Total acid used in treatment (bbl): _____ Number of staged intervals: _____

Recycled water used in treatment (bbl): _____ Flowback volume recovered (bbl): _____

Fresh water used in treatment (bbl): _____ Disposition method for flowback: _____

Total proppant used (lbs): _____ Rule 805 green completion techniques were utilized:

Reason why green completion not utilized: _____

Fracture stimulations must be reported on FracFocus.org

Test Information:

Date: _____ Hours: _____ Bbl oil: _____ Mcf Gas: _____ Bbl H2O: _____

Calculated 24 hour rate: _____ Bbl oil: _____ Mcf Gas: _____ Bbl H2O: _____ GOR: _____

Test Method: _____ Casing PSI: _____ Tubing PSI: _____ Choke Size: _____

Gas Disposition: _____ Gas Type: _____ Btu Gas: _____ API Gravity Oil: _____

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.

FORMATION: NIOBRARA-FORT HAYS-CODELL-CARLILE Status: PRODUCING Treatment Type: FRACTURE STIMULATION

Treatment Date: 03/18/2019 End Date: 04/03/2019 Date of First Production this formation: 04/19/2019
Perforations Top: 8378 Bottom: 17930 No. Holes: 1440 Hole size: 19/50

Provide a brief summary of the formation treatment: Open Hole:

541,913# 100 Mesh Sand; 8,907,448# 20/40 Sand; 165,101 bbls gelled fluid; Flowback determined from well test separator.

This formation is commingled with another formation: Yes No

Total fluid used in treatment (bbl): 165101 Max pressure during treatment (psi): 4835
Total gas used in treatment (mcf): Fluid density at initial fracture (lbs/gal): 8.34
Type of gas used in treatment: Min frac gradient (psi/ft): 0.88
Total acid used in treatment (bbl): Number of staged intervals: 48
Recycled water used in treatment (bbl): Flowback volume recovered (bbl): 14741
Fresh water used in treatment (bbl): 165101 Disposition method for flowback: DISPOSAL
Total proppant used (lbs): 9449361 Rule 805 green completion techniques were utilized:

Reason why green completion not utilized:

Fracture stimulations must be reported on FracFocus.org

Test Information:

Date: 04/21/2019 Hours: 24 Bbl oil: 682 Mcf Gas: 669 Bbl H2O: 8806
Calculated 24 hour rate: Bbl oil: 682 Mcf Gas: 669 Bbl H2O: 8806 GOR: 981
Test Method: Flowing Casing PSI: 3000 Tubing PSI: 1900 Choke Size: 16/64
Gas Disposition: SOLD Gas Type: WET Btu Gas: 1341 API Gravity Oil: 42
Tubing Size: 2 + 3/8 Tubing Setting Depth: 7986 Tbg setting date: 04/14/2019 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:

The bottom of the completed interval is at 525' FNL, and 2242' FEL of Section 13. During stimulation the wellbore was isolated by a composite bridge plug set at 17948'. The toe sleeve is @ 17,985', with zonal isolation below this point provided by cement from 17,985-18,218' behind pipe and 18,208- 18,218' inside the production casing, see cement job summary. Great Western certifies that none of the wellbore beyond the unit boundary setback was completed.

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

Signed: Print Name: Renee Kendrick
Title: Sr Regulatory Analyst Date: 9/18/2019 Email rkendrick@gwogco.com

Attachment Check List

Att Doc Num	Name
402034341	FORM 5A SUBMITTED
402151382	CEMENT JOB SUMMARY

Total Attach: 2 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	•Permitting review complete and passed task.	10/22/2019
Engineer	•Engineering review complete	10/18/2019
Permit	Returned to Draft: Operator Comments do not satisfy the requirements of the COA.	09/12/2019
Permit	Returned to Draft: •Per the COA on the form 2 (Doc#401742272), Operator Comments do not satisfy all of the following requirements. (1) report the footages from the section lines of the bottom of the completed interval, (2) describe how the wellbore beyond the unit boundary setback is physically isolated, and (3) certify that none of the wellbore beyond the setback was completed.	07/15/2019

Total: 4 comment(s)