

FORM  
5A

Rev  
06/12

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



DE	ET	OE	ES
----	----	----	----

Document Number:

400313722

Date Received:

08/08/2012

COMPLETED INTERVAL REPORT

The completed interval Report, Form 5A, shall be submitted within thirty (30) days of completing a formation (successful or not), when a formation is temporarily abandoned or permanently abandoned, for a recompletion, reperforation or restimulation, or when a formation is commingled. Fill out a section for each formation. Attach as many pages as required to fully describe the work. List in order of completion.

1. OGCC Operator Number: 47120	4. Contact Name: JOEL MALEFYT
2. Name of Operator: KERR-MCGEE OIL & GAS ONSHORE LP	Phone: (720) 929-6828
3. Address: P O BOX 173779	Fax: (720) 929-7828
City: DENVER State: CO Zip: 80217-	

5. API Number 05-123-33727-00	6. County: WELD
7. Well Name: HOWARD	Well Number: 21-32
8. Location: QtrQtr: SWNE Section: 32 Township: 1N Range: 67W Meridian: 6	
9. Field Name: WATTENBERG	Field Code: 90750

Completed Interval

FORMATION: <u>CODELL</u>		Status: <u>COMMINGLED</u>		Treatment Type: <u>FRACTURE STIMULATION</u>	
Treatment Date: <u>01/03/2012</u>		End Date: <u>01/03/2012</u>		Date of First Production this formation: <u>02/06/2012</u>	
Perforations	Top: <u>8092</u>	Bottom: <u>8114</u>	No. Holes: <u>66</u>	Hole size: <u>0.42</u>	

Provide a brief summary of the formation treatment: \_\_\_\_\_ Open Hole: ☐

PERF CODL 8092-8114 HOLES 66 SIZE .42  
 Frac Codell down 4-1/2" Csg w/ 195,594 gal Slickwater w/ 151,620# 40/70, 4,000# SB Excel, 0# .  
 Broke @ 4,168 psi @ 5.3 bpm. ATP=4,289 psi; MTP=5,427 psi; ATR=59.7 bpm; ISDP=2,502 psi

This formation is commingled with another formation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Total fluid used in treatment (bbl): <u>3610</u>	Max pressure during treatment (psi): <u>5427</u>
Total gas used in treatment (mcf): _____	Fluid density at initial fracture (lbs/gal): <u>8.30</u>
Type of gas used in treatment: _____	Min frac gradient (psi/ft): _____
Total acid used in treatment (bbl): _____	Number of staged intervals: <u>1</u>
Recycled water used in treatment (bbl): _____	Flowback volume recovered (bbl): _____
Fresh water used in treatment (bbl): _____	Disposition method for flowback: <u>DISPOSAL</u>
Total proppant used (lbs): <u>155620</u>	Rule 805 green completion techniques were utilized: <input checked="" type="checkbox"/>
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: <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, number of sacks cmt _____
---------------------------------	---	-----------------------------------

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

FORMATION: <u>J-NIOBRARA-CODELL</u>		Status: <u>COMMINGLED</u>		Treatment Type: _____	
Treatment Date: _____		End Date: _____		Date of First Production this formation: <u>02/06/2012</u>	
Perforations	Top: <u>7672</u>	Bottom: <u>8566</u>	No. Holes: <u>196</u>	Hole size: <u>0.47</u>	
Provide a brief summary of the formation treatment:			Open Hole: <input type="checkbox"/>		
This formation is commingled with another formation:			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: <input type="checkbox"/>		
Reason why green completion not utilized: _____					
<b>Fracture stimulations must be reported on FracFocus.org</b>					
<b><u>Test Information:</u></b>					
Date: <u>02/10/2012</u>	Hours: <u>24</u>	Bbl oil: <u>22</u>	Mcf Gas: <u>39</u>	Bbl H2O: <u>0</u>	
Calculated 24 hour rate:	Bbl oil: <u>22</u>	Mcf Gas: <u>39</u>	Bbl H2O: <u>0</u>	GOR: <u>1773</u>	
Test Method: <u>FLOWING</u>	Casing PSI: <u>942</u>	Tubing PSI: _____	Choke Size: _____		
Gas Disposition: <u>SOLD</u>	Gas Type: <u>WET</u>	Btu Gas: <u>1313</u>	API Gravity Oil: <u>46</u>		
Tubing Size: _____	Tubing Setting Depth: _____	Tbg setting date: _____	Packer Depth: _____		
Reason for Non-Production: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>					
Date formation Abandoned: _____	Squeeze: <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, number of sacks cmt _____			
** Bridge Plug Depth: _____	** Sacks cement on top: _____	** Wireline and Cement Job Summary must be attached.			

FORMATION: <u>J SAND</u>		Status: <u>PRODUCING</u>		Treatment Type: <u>FRACTURE STIMULATION</u>	
Treatment Date: <u>12/22/2011</u>		End Date: <u>12/22/2011</u>		Date of First Production this formation: <u>02/06/2012</u>	
Perforations	Top: <u>8550</u>	Bottom: <u>8566</u>	No. Holes: <u>64</u>	Hole size: <u>0.42</u>	

Provide a brief summary of the formation treatment: \_\_\_\_\_ Open Hole: ☐

PERF JSND 8550-8566 HOLES 64 SIZE .42  
 Frac J-Sand down 4-1/2" Csg w/ 142,002 gal Slickwater w/ 114,980# 40/70, 4,000# SB Excel.  
 Broke @ 1,961 psi @ 3.1 bpm. ATP=2,086 psi; MTP=3,060 psi; ATR=35.8 bpm; ISDP=1,538 psi

This formation is commingled with another formation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Total fluid used in treatment (bbl): <u>3381</u>	Max pressure during treatment (psi): <u>3060</u>
Total gas used in treatment (mcf): _____	Fluid density at initial fracture (lbs/gal): <u>8.30</u>
Type of gas used in treatment: _____	Min frac gradient (psi/ft): _____
Total acid used in treatment (bbl): _____	Number of staged intervals: <u>1</u>
Recycled water used in treatment (bbl): _____	Flowback volume recovered (bbl): _____
Fresh water used in treatment (bbl): _____	Disposition method for flowback: <u>DISPOSAL</u>
Total proppant used (lbs): <u>118980</u>	Rule 805 green completion techniques were utilized: <input checked="" type="checkbox"/>
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: <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, number of sacks cmt _____
---------------------------------	---	-----------------------------------

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

FORMATION: NIOBRARA-CODELL Status: PRODUCING Treatment Type: FRACTURE STIMULATION

Treatment Date: 01/03/2012 End Date: 01/03/2012 Date of First Production this formation: 02/06/2012

Perforations Top: 7672 Bottom: 8114 No. Holes: 132 Hole size: 0.47

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 Status: COMMINGLED Treatment Type: FRACTURE STIMULATION  
Treatment Date: 01/03/2012 End Date: 01/03/2012 Date of First Production this formation: 02/06/2012  
Perforations Top: 7672 Bottom: 7948 No. Holes: 66 Hole size: 0.47  
Provide a brief summary of the formation treatment: Open Hole: ☐

**PERF NBRR 7672-7948 HOLES 66 SIZE .47**

Frac Niobrara A & B & C down 4-1/2" Csg w/ 250 gal 15% HCl & 229,028 gal Slickwater w/ 200,720# 40/70, 4,000# SB Excel, 0# . Broke @ 3,300 psi @ 4.5 bpm. ATP=4,120 psi; MTP=4,917 psi; ATR=57.3 bpm; ISDP=2,439 psi

This formation is commingled with another formation: ☒ Yes ☐ No

Total fluid used in treatment (bbl): 5453 Max pressure during treatment (psi): 4917  
Total gas used in treatment (mcf): Fluid density at initial fracture (lbs/gal): 8.30  
Type of gas used in treatment: Min frac gradient (psi/ft):  
Total acid used in treatment (bbl): 5 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: DISPOSAL  
Total proppant used (lbs): 204720 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.

Comment:

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

Signed: Print Name: JOEL MALEFYT  
Title: REGULATORY ANALYST Date: 8/8/2012 Email: JOEL.MALEFYT@ANADARKO.COM

**Attachment Check List**

Att Doc Num	Name
400313722	FORM 5A SUBMITTED

Total Attach: 1 Files

**General Comments**

User Group	Comment	Comment Date

Total: 0 comment(s)