

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



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Document Number:

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Date Received:

11/08/2012

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: 69175

2. Name of Operator: PDC ENERGY INC

3. Address: 1775 SHERMAN STREET - STE 3000

City: DENVER State: CO Zip: 80203

4. Contact Name: Jenifer Hakkarinen

Phone: (303) 8605800

Fax: (303) 8605838

5. API Number 05-123-23141-00

7. Well Name: WELLS RANCH

8. Location: QtrQtr: NWSE Section: 15 Township: 6N Range: 63W Meridian: 6

9. Field Name: WATTENBERG Field Code: 90750

6. County: WELD

Well Number: 33-15

Completed Interval

FORMATION: <u>CODELL</u>		Status: <u>COMMINGLED</u>		Treatment Type: <u>FRACTURE STIMULATION</u>	
Treatment Date: <u>08/17/2012</u>		End Date: <u>08/17/2012</u>		Date of First Production this formation: <u>09/10/2012</u>	
Perforations	Top: <u>6758</u>	Bottom: <u>6766</u>	No. Holes: <u>24</u>	Hole size: <u>13/32</u>	

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

Codell ReFrac: MIRU HES. Well took 0 bbls to load. (Break 4536 psi @ 4.8 BPM), Pumped 16 bbl cla-web load and break, Pumped 119 bbls of FE-1A pad, 595 bbls of 26# pHaser pad, 196 bbls of 1.0 ppg 20/40 slurry with 26# pHaser, 524 bbls of 2.0 ppg 20/40 slurry with 26# pHaser, 929 bbls of 3.0 ppg 20/40 slurry with 26# pHaser, 285 bbls of 4.0 ppg 20/40 slurry with 26# pHaser, 80 bbls of 4.0 ppg SB Excel slurry with 26# pHaser. Flushed well to top of the Codell perf (41.73 bbls) Shutdown (ISIP 3398 psi) (FG .936) Fluid contained the following chemicals: .30 gpt be-7, .6 gpt CL-23, .5 gpt BA-20, 1.5 gpt GasPerm 1100, .5 gpt Cla-web, 3.0 - 5.0 gpt Vicon NF, 0.25 - .75 gpt CAT 3, 6.0 gpt WG-18 @ 22 Ppt Losurf-100, FE-1A @ 20 gpt (217,340 lbs Ottawa 20/40) (8400 lbs 20/40 SB Excel). RD HES. MTP = 6887 psi, ATP = 5269 psi, AIR = 20.9 bpm. Pressure response was slightly positive for entire treatment. Casing patch @ 2860'.

This formation is commingled with another formation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Total fluid used in treatment (bbl): <u>2744</u>	Max pressure during treatment (psi): <u>6887</u>
Total gas used in treatment (mcf): _____	Fluid density at initial fracture (lbs/gal): <u>8.34</u>
Type of gas used in treatment: _____	Min frac gradient (psi/ft): <u>0.93</u>
Total acid used in treatment (bbl): <u>119</u>	Number of staged intervals: <u>1</u>
Recycled water used in treatment (bbl): _____	Flowback volume recovered (bbl): _____
Fresh water used in treatment (bbl): <u>2744</u>	Disposition method for flowback: <u>DISPOSAL</u>
Total proppant used (lbs): <u>225740</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: <u>2 + 3/8</u>	Tubing Setting Depth: <u>6742</u>	Tbg setting date: <u>09/10/2012</u>	Packer Depth: _____	

Reason for Non-Production:

Date formation Abandoned: _____	Squeeze: <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, number of sacks cmt _____
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** 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: _____ End Date: _____ Date of First Production this formation: 09/10/2012

Perforations Top: 6494 Bottom: 6766 No. Holes: 52 Hole size: _____

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): 54

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

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: 09/28/2012 Hours: 24 Bbl oil: 42 Mcf Gas: 74 Bbl H2O: 54

Calculated 24 hour rate: Bbl oil: 42 Mcf Gas: 74 Bbl H2O: 54 GOR: 1805

Test Method: Flowing Casing PSI: 486 Tubing PSI: 316 Choke Size: 16/64

Gas Disposition: SOLD Gas Type: WET Btu Gas: 1283 API Gravity Oil: 44

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: 08/28/2012 End Date: 08/28/2012 Date of First Production this formation: 09/10/2012
Perforations Top: 6494 Bottom: 6598 No. Holes: 28 Hole size: 27/64

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

Niobrara Recomplete, Well loaded with 0 bbl pumped (Break 3925 psi @ 2.2 BPM) Pumped 24 bbl 15% HCL, 119 bbls of Active pad, Pumped 1248 bbls of Slickwater pad, 142 bbls of 24# pHaser pad, 165 bbls of 1.0 ppg 20/40 slurry with 24# pHaser, 786 bbls of 2.0 ppg 20/40 slurry with 24# pHaser, 833 bbls of 3.0 ppg 20/40 slurry with 24# pHaser, 374 bbls of 4.0 ppg 20/40 slurry with 24# pHaser, 97 bbls of 4.0 ppg SB Excel 20/40 slurry with 24# pHaser. Flushed well to top of the Niobrara B perf (39.37 bbls) Shutdown (ISIP 3138 psi) (FG .916). Fluid contained the following chemicals: .6 gpt CL-23, 1.0 gpt BA-20, 2.0 gpt GasPerm 1100, 1.25 gpt Clayfix III, 0.5 - 3.0 gpt Vicon NF, 0.15 - .75 gpt CAT 3, 2.0 gpt FR-66, 22 ppt WG-18 1.0 gpt Losurf-100 (240,240 lbs 20/40 Ottawa) (12,000 20/40 SB Excel. RD HES. MTP = 7821 psi, ATP = 6512 psi, AIR = 27.4 bpm. Pressure response was negative for entire treatment. Casing patch @ 2,860'.

perf NBRR "A" 6494-6496 (4 holes) "B" 6590-6598 (24 holes)

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

Total fluid used in treatment (bbl): 3788 Max pressure during treatment (psi): 7821

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): 0.91

Total acid used in treatment (bbl): 24 Number of staged intervals: 1

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

Fresh water used in treatment (bbl): 3788 Disposition method for flowback: DISPOSAL

Total proppant used (lbs): 252240 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: SOLD Gas Type: WET Btu Gas: API Gravity Oil:

Tubing Size: 2 + 3/8 Tubing Setting Depth: 6742 Tbg setting date: 09/10/2012 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: Jenifer Hakkarinen

Title: Regulatory Analyst Date: 11/8/2012 Email: Jenifer.Hakkarinen@pdce.com

Attachment Check List

Att Doc Num	Name
400344646	FORM 5A SUBMITTED

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