

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:

402156199

Date Received:

08/26/2019

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: Cassie Gonzalez

Phone: (303) 860-5800

Fax:

Email: Cassie.Gonzalez@pdce.com

5. API Number 05-123-45255-00

7. Well Name: Thistle Down

8. Location: QtrQtr: NESW Section: 31 Township: 5N Range: 64W Meridian: 6

9. Field Name: WATTENBERG Field Code: 90750

6. County: WELD

Well Number: 31H-232

### Completed Interval

FORMATION: NIOBRARA Status: PRODUCING Treatment Type: FRACTURE STIMULATION

Treatment Date: 07/06/2019 End Date: 07/14/2019 Date of First Production this formation: 08/13/2019  
Perforations Top: 7264 Bottom: 12870 No. Holes: 1116 Hole size: 42/100

Provide a brief summary of the formation treatment:

Open Hole: ☐

32 Stage Plug and Perf  
Total Fluid: 108,924 bbls  
Gel Fluid: 71,725 bbls  
Slickwater Fluid: 36,444 bbls  
15% HCl Acid: 755 bbls  
Total Proppant: 6,064,060 lbs  
Silica Proppant: 6,064,060 lbs  
Method for determining flowback: measuring flowback tank volumes.

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

Total fluid used in treatment (bbl): 108924

Max pressure during treatment (psi): 4567

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): 0.98

Total acid used in treatment (bbl): 755

Number of staged intervals: 32

Recycled water used in treatment (bbl):

Flowback volume recovered (bbl): 5189

Fresh water used in treatment (bbl): 108169

Disposition method for flowback: DISPOSAL

Total proppant used (lbs): 6064060

Rule 805 green completion techniques were utilized: ☒

Reason why green completion not utilized:

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

### Test Information:

Date: 08/16/2019 Hours: 24 Bbl oil: 315 Mcf Gas: 1159 Bbl H2O: 178  
Calculated 24 hour rate: Bbl oil: 315 Mcf Gas: 1159 Bbl H2O: 178 GOR: 3679  
Test Method: Flowing Casing PSI: 2775 Tubing PSI: 2039 Choke Size: 16/64  
Gas Disposition: SOLD Gas Type: WET Btu Gas: 1302 API Gravity Oil: 53  
Tubing Size: 2 + 3/8 Tubing Setting Depth: 7114 Tbg setting date: 08/10/2019 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:

Actual Top of Productive Zone Footage: 967' FSL & 462' FWL Sec: 31 Twp: 5N Rng: 64W

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

Signed: Print Name: Cassie Gonzalez

Title: Regulatory Technician Date: 8/26/2019 Email: Cassie.Gonzalez@pdce.com

### Attachment Check List

Att Doc Num Name

402156199 FORM 5A SUBMITTED

Total Attach: 1 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Passed Completion review.	09/12/2019

Total: 1 comment(s)