

FORM

2

Rev  
12/05

## State of Colorado

## Oil and Gas Conservation Commission

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Document Number:

400425961

Date Received:

07/19/2013

PluggingBond SuretyID

20090078

## APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

## 2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_  
 SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refiling ☐Sidetrack ☐

3. Name of Operator: PDC ENERGY INC

4. COGCC Operator Number: 69175

5. Address: 1775 SHERMAN STREET - STE 3000

City: DENVER State: CO Zip: 80203

6. Contact Name: Liz Lindow Phone: (303)831-3974 Fax: ()

Email: liz.lindow@pdce.com

7. Well Name: Thornton Well Number: 28S-223

8. Unit Name (if appl): Unit Number:

9. Proposed Total Measured Depth: 11887

## WELL LOCATION INFORMATION

10. QtrQtr: NESE Sec: 28 Twp: 7N Rng: 66W Meridian: 6

Latitude: 40.545470 Longitude: -104.776950

Footage at Surface: 2510 feet FNL/FSL 870 feet FEL/FWL  
 FSL FEL

11. Field Name: Wattenberg Field Number: 90750

12. Ground Elevation: 4935 13. County: WELD

## 14. GPS Data:

Date of Measurement: 04/26/2013 PDOP Reading: 1.8 Instrument Operator's Name: Tom Carlson

15. If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL  
 1978 FSL 992 FEL 2140 FNL 812 FEL  
 Sec: 28 Twp: 7N Rng: 66W Sec: 33 Twp: 7N Rng: 66W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 790 ft

18. Distance to nearest property line: 154 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 217 ft

## 20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		240	GWA

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: \_\_\_\_\_22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian23. Is the Surface Owner also the Mineral Owner? ☒ Yes ☐ No Surface Surety ID#:23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☒ Yes ☐ No23b. If 23 is No: ☐ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

See attached mineral lease map. Horizontal wellbore crosses multiple lease lines in drilling and spacing unit. Distance to lease line is 0'. Distance to unit boundary is 551'.

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 212

### DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☐ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☒ Land Spreading ☐ Disposal Facility Other: \_\_\_\_\_

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	12+1/4	9+5/8	36	0	875	830	875	0
1ST	8+3/4	7	26	0	7784	650	7784	500
1ST LINER	6+1/8	4+1/2	11.6	6565	11887			

32. BOP Equipment Type: ☐ Annular Preventer ☒ Double Ram ☐ Rotating Head ☐ None

33. Comments 7" casing string will be cemented to at least 200' above Niobrara, around 500' from surface. CBL will only be run in the vertical section of the wellbore. Conductor casing will not be used. Operator requests an exception location per rule 318Aa and rule 318Ac: well will not be drilled in a legal drilling window or twinned with an existing well. Waivers attached. Per rule 318Ae, the Operator requests the proposed spacing unit consisting of 240 acres, SE of Sec 28 and E2NE T7N R66W. Proposed spacing unit map and 30-day certificate is attached. Distance to nearest well measured to via the Anti-Collision Report in the Deviated Drilling plan.

34. Location ID: \_\_\_\_\_

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☒ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☒ Yes ☐ No

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

Signed: \_\_\_\_\_

Print Name: Liz Lindow

Title: Regulatory Analyst

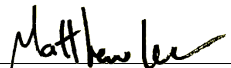
Date: 7/19/2013

Email: liz.lindow@pdce.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_



Director of COGCC

Date: 11/16/2013

API NUMBER

05 123 38441 00

Permit Number: \_\_\_\_\_

Expiration Date: 11/15/2015

CONDITIONS OF APPROVAL, IF ANY:

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

**Description**

Operator acknowledges the proximity of the Anderson 1-34 API # 05-123-11266 well. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.

Operator must meet water well testing requirements per Rule 318A.

- 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.
- 2) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 3) Comply with Rule 321. Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

Operator acknowledges the proximity of the Norton A J 2 API # 05-123-11727, Norton A J 3 API # 05-123-11762, Norton A J 4 API 05-123-11763 wells. Operator agrees to: provide mitigation option 3 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.

Date retrieval failed for the subreport 'IntPolicy\_MTO' located at: \\DorDonSterling\cFarmReports\policy\_mto.rpt. Please

**Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
2114225	PROPOSED SPACING UNIT
400425961	FORM 2 SUBMITTED
400432595	30 DAY NOTICE LETTER
400432596	EXCEPTION LOC WAIVERS
400432597	MINERAL LEASE MAP
400432598	WELL LOCATION PLAT
400432601	DIRECTIONAL DATA
400433947	DEVIATED DRILLING PLAN
400433969	EXCEPTION LOC REQUEST
400451043	OFFSET WELL EVALUATION

Total Attach: 10 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Operator supplied corrected Proposed Spacing Unit. Ready to pass pending public comment.	3/9/2013 1:06:34 PM
Permit	Proposed Spacing Unit needs NWNE sec 33 added to accommodate wellbore.	7/25/2013 10:02:02 AM
Permit	Passed completeness.	7/22/2013 7:52:10 AM

Total: 3 comment(s)

**Best Management Practices**

<b><u>No</u></b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>
1	Drilling/Completion Operations	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. The Colorado Oil and Gas Conservation Commission (COGCC) has established this Policy Regarding Bradenhead Monitoring During Hydraulic Fracturing Treatments ("Treatment") in the Greater Wattenberg Area ("GWA") pursuant to COGCC 207.a. ("Policy"). This Policy applies to oil and gas operations in the GWA as defined by the COGCC Rules of Practice and Procedure.

Total: 1 comment(s)