

FORM  
2

Rev  
12/05

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



|                                   |    |    |    |
|-----------------------------------|----|----|----|
| DE                                | ET | OE | ES |
| Document Number:<br>400239593     |    |    |    |
| PluggingBond SuretyID<br>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: PETROLEUM DEVELOPMENT CORPORATION 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: llindow@petd.com  
7. Well Name: Carmichael Well Number: 26U-243  
8. Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_  
9. Proposed Total Measured Depth: 11288

WELL LOCATION INFORMATION

10. QtrQtr: NENE Sec: 26 Twp: 7N Rng: 63W Meridian: 6  
Latitude: 40.551940 Longitude: -104.397770

Footage at Surface: 100 feet FNL 1090 feet FEL

11. Field Name: Wattenberg Field Number: 90750  
12. Ground Elevation: 4769 13. County: WELD

14. GPS Data:

Date of Measurement: 11/09/2011 PDOP Reading: 2.9 Instrument Operator's Name: Adam Kelly

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  
821 FNL 200 FEL 500 FSL 200 FEL  
Sec: 26 Twp: 7N Rng: 63W Sec: 26 Twp: 7N Rng: 63W

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: 1106 ft

18. Distance to nearest property line: 100 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 270 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           |                         | 320                           | GWA                                  |

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: \_\_\_\_\_

22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

23. 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 ☐ No

23b. 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):

T7N R63W, 6th PM, Sec 26: E/2

25. Distance to Nearest Mineral Lease Line: 200 ft

26. Total Acres in Lease: 320

### 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: closed loop

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           | 730       | 875     | 0       |
| 1ST         | 8+3/4        | 7              | 26    | 0             | 7,189         | 650       | 7,189   | 600     |
| 1ST LINER   | 6+1/8        | 4+1/2          | 11.6  | 5982          | 11,288        |           |         |         |

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

33. Comments Conductor casing will not be used. 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. Waviers attached. Per rule 318Ae, the Operator requests the proposed spacing unit consisting of 320 acres, E2E2 of Sec 26 T7N R63W nad W2W2 of Sec 25 T7N R63W. Proposed spacing unit map and 30-day certificate is attached. Well was previously named Carmichael 26-NS5(W)-HZ-NB. PDC is the operator of Carmichael 43-26 located 270' west of the planned wellbore. Waiver to monitor bradenhead pressure of this well is attached.

34. Location ID: 426494

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: Permit Representative Date: 1/11/2012 Email: llindow@petd.com

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: David S. Nash

Director of COGCC Date: 2/10/2012

#### API NUMBER

05 123 35078 00

Permit Number: \_\_\_\_\_ Expiration Date: 2/9/2014

#### 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.

Operator must meet water well sampling requirements as per Rule 318A.

- 1) Provide 48 hour notice of MIRU to COGCC inspector John Montoya by e-mail at John.Montoya@state.co.us. Indicate Spud Notice in the subject line and provide the following information: Operator Name, Well Name and Number, API #, Spud Date, Contact Name, Contact Phone #, Email Address.
- 2) Provide cement coverage from base of intermediate casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 3) 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.

### **Attachment Check List**

| Att Doc Num | Name                   |
|-------------|------------------------|
| 400239593   | FORM 2 SUBMITTED       |
| 400239622   | EXCEPTION LOC WAIVERS  |
| 400239623   | TOPO MAP               |
| 400239624   | EXCEPTION LOC REQUEST  |
| 400239625   | EXCEPTION LOC WAIVERS  |
| 400239626   | 30 DAY NOTICE LETTER   |
| 400239629   | DEVIATED DRILLING PLAN |
| 400239632   | WELL LOCATION PLAT     |
| 400239633   | PROPOSED SPACING UNIT  |
| 400239639   | OTHER                  |

Total Attach: 10 Files

### **General Comments**

| <b><u>User Group</u></b> | <b><u>Comment</u></b>                             | <b><u>Comment Date</u></b> |
|--------------------------|---|----------------------------|
| Permit                   | Spacing 1203-sp-18 pertains to the W/2            | 2/8/2012 2:24:01 PM        |
| Permit                   | Operator added Frac monitoring BMP.               | 2/8/2012 11:17:00 AM       |
| Permit                   | On hold - Waiting on BMP for Frac monitoring BMP. | 1/23/2012 6:31:03 AM       |
| Permit                   | On hold - Waiting on spacing order number?        | 1/23/2012 6:29:43 AM       |

Total: 4 comment(s)

## **BMP**

| <b><u>Type</u></b>             | <b><u>Comment</u></b>   |
|--------------------------------|---|
| Drilling/Completion Operations | <p>Best Management Practice for a Horizontal Wellbore Fracturing Stimulation</p> <ol style="list-style-type: none"><li>1. At least seven (7) days prior to fracture stimulation, the operator is to notify all operators of non-operated wells within 300 feet of the wellbore to be fracture stimulated of the anticipated date stimulation date and the recommended best management practice to shut-in all wells within 300' of the stimulated wellbore completed in the same formation.</li><li>2. The operator will monitor the bradenhead pressure of all wells within 300 feet of the well to be fracture stimulated.</li><li>3. Bradenhead pressure gauges are to be installed 24 hours prior to stimulation. The gauges are to read at least once during every 24-hour period until 24-hours after stimulation is completed (post flowback). The gauges are to be of the type able to read current pressure and record the maximum encountered pressure in a 24-hour period. The gauge is to be reset between each 24-hour period. The pressures are to be recorded and saved. Alternate electronic measurement may be used to record the prescribed pressures. Data shall be kept for a period of one year.</li><li>4. If at any time during stimulation or the 24-hour post-stimulation period, the bradenhead annulus pressure of the treatment well or offset wells increases more than 200 psig, as per Rule 341, the operator of the well being stimulated shall verbally notify the Director as soon as practicable, but no later than twenty-four (24) hours following the incident. Within fifteen (15) days after the occurrence, the operator shall submit a Sundry Notice, Form 4, giving all details, including corrective actions taken.</li></ol> |

Total: 1 comment(s)