

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



Document Number:

400256471

Date Received:

03/23/2012

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: 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: Schaefer Well Number: 10M-243

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

9. Proposed Total Measured Depth: 11170

WELL LOCATION INFORMATION

10. QtrQtr: NWNW Sec: 10 Twp: 6N Rng: 63W Meridian: 6

Latitude: 40.508170 Longitude: -104.427520

Footage at Surface: 185 feet FNL/FSL 1300 feet FEL/FWL
FNL FWL

11. Field Name: Wattenberg Field Number: 90750

12. Ground Elevation: 4697 13. County: WELD

14. GPS Data:

Date of Measurement: 02/16/2012 PDOP Reading: 1.8 Instrument Operator's Name: Wyatt Hall

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
500 FNL 2080 FWL 500 FSL 2080 FWL
Sec: 10 Twp: 6N Rng: 63W Sec: 10 Twp: 6N 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: 1200 ft

18. Distance to nearest property line: 185 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 77 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		160	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#: 19990086

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):

W/2 Sec 10 T6N R63W 6th PM

25. Distance to Nearest Mineral Lease Line: 500 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	7,107	650	7,107	600
1ST LINER	6+1/8	4+1/2	11.6	5895	11,170			

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

33. Comments 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, E/2W/2 of Sec 10 T6N R63W. Proposed spacing unit map and 30-day certificate is attached.

34. Location ID: 427120

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: 3/23/2012 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:  Director of COGCC Date: 4/19/2012

API NUMBER

05 123 35408 00

Permit Number: _____ Expiration Date: 4/18/2014

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 prior to spud via Form 42.
- 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
400256471	FORM 2 SUBMITTED
400256472	EXCEPTION LOC WAIVERS
400256473	EXCEPTION LOC REQUEST
400256474	WELL LOCATION PLAT
400256476	EXCEPTION LOC REQUEST
400258990	PROPOSED SPACING UNIT
400258992	TOPO MAP
400264578	DIRECTIONAL DATA
400264579	DEVIATED DRILLING PLAN

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	No LGD or public comment received; final review completed.	4/19/2012 6:19:10 AM
Permit	Operator proposes this horizontal well to be less than 150 feet from two other wells operated by PDC. Operator has submitted the Rule 318A.m exception request.	4/17/2012 1:41:45 PM
Permit	Changed proposed spacing unit size to match proposed spacing unit attachments.	3/29/2012 6:08:51 AM
Permit	Operator submitted intra-well distance exception and frac monitor BMP.	3/29/2012 5:53:30 AM
Permit	Operator corrected right to construct information. This form has passed completeness.	3/28/2012 9:51:48 AM
Permit	Returned to draft. Right to construct cannot be SUA and bond.	3/26/2012 8:13:28 AM

Total: 6 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	<p>Wellbore Fracturing Stimulation</p> <ol style="list-style-type: none">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 stimulation date and the recommended best management practice to shut-in all wells within 300' of the stimulated wellbore completed in the same formation.2. The operator will monitor the bradenhead pressure of all wells within 300 feet of the well to be fracture stimulated.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.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.
Drilling/Completion Operations	<p>Anti-Collision</p> <p>Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.</p>

Total: 2 comment(s)