

FORM
2

Rev
12/05

State of Colorado
Oil and Gas Conservation Commission

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Document Number:

400276878

Date Received:

06/05/2012

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: Brown Well Number: 2F-412

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

9. Proposed Total Measured Depth: 11084

WELL LOCATION INFORMATION

10. QtrQtr: NWNW Sec: 2 Twp: 6N Rng: 63W Meridian: 6

Latitude: 40.519610 Longitude: -104.412170

Footage at Surface: 1210 feet FNL/FSL 250 feet FEL/FWL
FNL FWL

11. Field Name: Wattenberg Field Number: 90750

12. Ground Elevation: 4710 13. County: WELD

14. GPS Data:

Date of Measurement: 04/14/2012 PDOP Reading: 1.3 Instrument Operator's Name: Thomas 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
908 FNL 500 FWL 908 FNL 500 FEL
Sec: 2 Twp: 6N Rng: 63W Sec: 2 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: 258 ft

18. Distance to nearest property line: 250 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 93 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.)
Codell	CODL		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):

All of section 2 T6N/R63W

25. Distance to Nearest Mineral Lease Line: 500 ft

26. Total Acres in Lease: 636

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	730	875	0
1ST	8+3/4	7	26	0	7,302	650	7,302	600
1ST LINER	6+1/8	4+1/2	11.6	5982	11,084			

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, N/2 of Sec 2 T5N R67W. Proposed spacing unit map and 30-day certificate is attached.

34. Location ID: 427488

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: 6/5/2012 Email: llindow@petd.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: 7/20/2012

API NUMBER

05 123 35851 00

Permit Number: _____ Expiration Date: 7/19/2014

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 notice of MIRU via an electronic Form 42.
- 2) Comply with Rule 317.i and provide cement coverage from the end of the production casing to a minimum of 200' above the Niobrara. Verify coverage with a cement bond log.

Attachment Check List

Att Doc Num	Name
2481671	SURFACE CASING CHECK
400276878	FORM 2 SUBMITTED
400292066	DIRECTIONAL DATA
400292108	30 DAY NOTICE LETTER
400292115	DEVIATED DRILLING PLAN
400292116	EXCEPTION LOC WAIVERS
400292554	EXCEPTION LOC REQUEST
400292555	PROPOSED SPACING UNIT
400292556	WELL LOCATION PLAT
400292557	EXCEPTION LOC REQUEST

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	7/11/2012 2:17:57 PM
Permit	Changed distance to property line to match form 2A.	7/11/2012 2:16:47 PM
Permit	Operator requests approval of a Rule 318Am exception location: Wellhead is to be located less than 150' from an existing wellbore. No waivers required.	3/7/2012 6:04:29 AM
Permit	Operator provided an anti-collision report to address close proximity of planned wellbores.	3/7/2012 6:01:59 AM
Permit	On hold - The complete language of the fracture stimulating BMP must be in the permit.	3/7/2012 5:36:37 AM
Permit	On hold - Distance to property line does not match that of the form 2A	3/7/2012 5:32:59 AM
Permit	Wellhead is to be located outside of a GWA drilling window and will be located more than 50' from an existing well location. Operator requests an exception location to 318Aa, 318Ac: Exception request and waiver attached.	3/7/2012 5:26:36 AM

Total: 7 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
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>
Drilling/Completion Operations	PDC will comply with the COGCC Policy for Bradenhead Monitoring dated 5/29/12
Drilling/Completion Operations	<p>It was agreed in a consultation with Petroleum Development Corporation personnel on July 13, 2012 that precautions shall be taken during drilling and/or stimulation to decrease the risk of communicating with the Shirk Miller #3-2 (API# 123-07720), a dry and abandoned well. The referenced well lacks isolation of the Fox Hills Aquifer and the Niobrara and Codell formations. To reduce the risk of impacting any un-isolated zones, no segments of the borehole within 300' of the referenced well shall be stimulated. At the Operator's discretion, a portion of or the entire 300' setback may be created during the drilling of the proposed wellbore. If this option is selected, a revised directional drilling plan must be submitted via Sundry Form 4 prior to drilling to ensure the wellbore is still within the lease. Also at least ten (10) days prior to stimulation, the Operator shall provide a Form 4 and Form 5 for COGCC approval. The Form 4 shall detail the stimulation plan and any segment of the borehole to be eliminated from stimulation due to the setback referenced above. The Form 5 shall contain an uploaded directional template to confirm either the setback distances were created during drilling or any segment of wellbore that may not be stimulated. This Sundry notice shall be submitted via email to the appropriate engineer.</p> <p>The identified setbacks could be eliminated by COGCC staff, if the Operator submits a Form 6 Notice of Intent to Abandon and performs the abandonment to the referenced existing well prior to the stimulation of the proposed well. The abandonment procedure will be determined at the time of Form 6 submittal and the elimination of the setback will be determined by the success of the plugging operation.</p>

Total: 3 comment(s)