

FORM
2

Rev
12/05

State of Colorado
Oil and Gas Conservation Commission

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Date Received:

06/08/2012

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: Dalton Well Number: 24L-441

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

9. Proposed Total Measured Depth: 11852

WELL LOCATION INFORMATION

10. QtrQtr: SWSW Sec: 24 Twp: 7N Rng: 66W Meridian: 6

Latitude: 40.554280 Longitude: -104.733050

Footage at Surface: 250 feet FNL/FSL 590 feet FEL/FWL
FSL FWL

11. Field Name: Wattenberg Field Number: 90750

12. Ground Elevation: 4880 13. County: WELD

14. GPS Data:

Date of Measurement: 04/14/2012 PDOP Reading: 1.4 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
500 FSL 660 FWL 500 FNL 660 FWL
Sec: 24 Twp: 7N Rng: 66W Sec: 24 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: 227 ft

18. Distance to nearest property line: 220 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 147 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		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#:

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):

See attached mineral lease description.

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 675

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	8,004	650	8,004	600
1ST LINER	6+1/8	4+1/2	11.6	6625	11,852			

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 160 acres, W2W2 of Sec 24 T7N R66W. Proposed spacing unit map and 30-day certificate is attached.

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: Permit Representative

Date: 6/8/2012

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: 7/6/2012

API NUMBER

05 123 35824 00

Permit Number: _____

Expiration Date: 7/5/2014

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 comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.

Operator must meet Water Well Testing requirements as per amended Rule 318Ae(4)

- 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.
- 3) Comply with Rule 321. Run and submit Directional Survey from the TD to surface. 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
2169135	SURFACE CASING CHECK
400291546	FORM 2 SUBMITTED
400292019	DIRECTIONAL DATA
400292022	WELL LOCATION PLAT
400294042	DEVIATED DRILLING PLAN
400294043	30 DAY NOTICE LETTER
400294044	MINERAL LEASE MAP
400294045	EXCEPTION LOC REQUEST
400294046	EXCEPTION LOC WAIVERS
400294047	EXCEPTION LOC REQUEST
400294048	PROPOSED SPACING UNIT

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	7/5/2012 8:25:21 AM
Permit	Operator requests approval of a Rule 318Aa, Rule 318Ae, and Rule 318Ac exception location: Wellhead is to be located outside of a GWA drilling window, the well will be drilled to a 318Ae infill location from outside of a GWA drilling window, and the wellhead will be located more than 50' from an existing well location. Request and waivers attached. Corrected unit configuration to GWA. Ready to pass pending public comment 7/2/12.	6/11/2012 4:19:58 PM

Total: 2 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	<p>Existing wells within 150' of proposed wellhead:</p> <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	<p>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.</p> <p>1. At least twenty (20) days prior to initiating a Treatment, the operator ("Operator") shall provide written notice, via hand delivery, via confirmed receipt email, or via certified mail, return-receipt requested, to all adjacent operators ("Adjacent Operators") where the Adjacent Operator's wellbore is located within 300 feet of the Operator's wellbore and the Adjacent Operator's wellbore penetrates the productive zone which is to be treated by the Operator. Such notice shall include the anticipated date of the Treatment and shall provide a copy of this Policy.</p> <p>2. Within seven (7) days of receipt of such notice, the Adjacent Operator shall confirm in writing to the Operator that it will comply with this Policy. If the Adjacent Operator refuses to confirm that it will comply with this Policy, or fails to timely respond to the Operator's notice, the Operator shall advise the Commission staff of such refusal or failure by email. The Commission may then order the Adjacent Operator's compliance.</p> <p>3. The Operator shall monitor the bradenhead pressure of all wells under Operator's control within 300 feet of the well which is to be treated, provided such other wells penetrate the productive zone which is to be treated.</p> <p>4. The Operator and Adjacent Operator(s) shall install bradenhead pressure gauges on their respective wells 24 hours prior to the Operator initiating a Treatment. The Operator and Adjacent Operator(s) shall monitor their respective gauges at least once during every 24-hour period until 24 hours after the Treatment is completed and shall continue to do so until the pressure stabilizes. The bradenhead pressure gauges shall be capable of monitoring current pressure and also capable of recording the maximum pressure encountered in a 24 hour period. Such gauges shall be reset between each 24 hour period. The pressures shall be recorded and saved for a period of one year. Alternate electronic measurement may be used to record the prescribed pressures.</p> <p>5. If at any time during the Treatment or the 24-hour post-stimulation period, the bradenhead annulus pressure of the Treatment well or any offset wells subject to this Policy increases by more than 200 psig, the Operator of the well being treated, or the Adjacent Operator(s) of an affected offsetting well, as the case may be, shall verbally notify each other and the Director, as soon as practicable, but no later than twenty-four (24) hours following such incident. Within fifteen (15) days after the occurrence, the Operator or Adjacent Operator(s), as the case may be, shall submit a Sundry Notice, Form 4, giving all details, including corrective actions taken.</p>

Total: 2 comment(s)