

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:

400043592

Plugging Bond Surety

20090078

APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

OIL ☐ GAS ☒ COALBED ☐ OTHER _____
SINGLE ZONE ☐ MULTIPLE ZONE ☒ COMMINGLE ZONE ☐

Refilling ☐

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: 80207

6. Contact Name: Sarah Garrett Phone: (303)860-5803 Fax: (303)860-5838

Email: sgarrett@petd.com

7. Well Name: Brown Well Number: 20ND

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

9. Proposed Total Measured Depth: 7514

WELL LOCATION INFORMATION

10. QtrQtr: SENW Sec: 20 Twp: 4N Rng: 67W Meridian: 6

Latitude: 40.301880 Longitude: -104.915260

Footage at Surface: 1424 FNL/FSL FNL 2167 FEL/FWL FWL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 4900 13. County: WELD

14. GPS Data:

Date of Measurement: 12/21/2009 PDOP Reading: 6.0 Instrument Operator's Name: Thomas G Carlson

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

Footage at Top of Prod Zone: FNL/FSL 1378 FNL 2382 FWL FWL Bottom Hole: FNL/FSL 1378 FNL 2382 FWL FWL
Sec: 20 Twp: 4N Rng: 67W Sec: 20 Twp: 4N Rng: 67W

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: 560 ft

18. Distance to nearest property line: 254 ft 19. Distance to nearest well permitted/completed in the same formation: 743 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 Codell	NB-CD	407-87	160	GWA
Sussex Shannon	SX-SN	N/A	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 Bon ☐ \$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):
NW/4 Section 20, Township 4 North, Range 67 West (+ acreage in other sections)

25. Distance to Nearest Mineral Lease Line: 112 ft 26. Total Acres in Lease: 317

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 27 or 28 are yes, is this location in a sensitive area (Rule 903)? ☐ Yes ☐ No If 28, 29, or 30 are "Yes" a pit permit may be required.

31. Mud disposal: ☒ Offsite ☐ Onsite

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	Weight Per Foot	Setting Depth	Sacks Cement	Cement Bottom	Cement Top
SURF	12+1/4	8+5/8	24	490	270	490	0
S.C. 1.1	7+7/8	4+1/2	10.5	7,514	200	7,514	6,314

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

33. Comments Conductor casing will not be used. Well will be located on the same pad as the following: Brown 20MD, Ryland 31-20D, Ryland 32-20D, Brown 20AD, and Brown 20OD. Proposed spacing unit is E/2NW4, W/2NE4. Location is outside the drilling window and is more than 50 feet from an existing well.

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: Sarah Garrett

Title: Landman Date: 3/29/2010 Email: sgarrett@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. Neslin Director of COGCC Date: 5/9/2010

API NUMBER

05 123 31554 00

Permit Number: _____ Expiration Date: 5/8/2012

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.

Exception location granted, waivers attached.

1) Note surface casing setting depth change from 450' to 490'. Increase cement coverage accordingly and cement to surface. 2) Provide 24 hour notice of MIRU to Bo Brown at 970-330-6085 or e-mail at bo.brown@state.co.us 3) Comply with Rule 317.i and provide cement coverage from TD to a minimum of 200' above Niobrara and from 200' below Shannon to 200' above Sussex. Verify coverage with cement bond log. 4) 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.

Attachment Check List

Att Doc Num	Name	Doc Description
1760909	EXCEPTION LOC WAIVERS	LF@2464376 1760909
1760919	EXCEPTION LOC REQUEST	LF@2464396 1760919
400043605	WELL LOCATION PLAT	LF@2447028 400043605
400043606	TOPO MAP	LF@2447029 400043606
400043607	DEVIATED DRILLING PLAN	LF@2447030 400043607
400043608	PROPOSED SPACING UNIT	LF@2447031 400043608
400043609	PROPOSED SPACING UNIT	LF@2447032 400043609
400045802	EXCEPTION LOC REQUEST	LF@2447033 400045802
400050743	30 DAY NOTICE LETTER	LF@2447034 400050743
400050745	EXCEPTION LOC WAIVERS	LF@2447035 400050745
400051248	FORM 2 SUBMITTED	LF@2447036 400051248

Total Attach: 11 Files