

FORM

2

Rev
12/05

State of Colorado

Oil and Gas Conservation Commission

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Document Number:

400393275

Date Received:

03/28/2013

PluggingBond SuretyID

20100017

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: ENCANA OIL & GAS (USA) INC4. COGCC Operator Number: 1001855. Address: 370 17TH ST STE 1700City: DENVER State: CO Zip: 80202-56326. Contact Name: Jevin Croteau Phone: (720)876-5339 Fax: (720)876-6339Email: jevin.croteau@encana.com7. Well Name: Devore Well Number: 1C-34H

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

9. Proposed Total Measured Depth: 11915

WELL LOCATION INFORMATION

10. QtrQtr: NENE Sec: 34 Twp: 3N Rng: 66W Meridian: 6Latitude: 40.188280Longitude: -104.758590

Footage at Surface: 230 feet FNL 1348 feet FEL
 FNL/FSL FEL/FWL

11. Field Name: Wattenberg Field Number: 9075012. Ground Elevation: 4961 13. County: WELD

14. GPS Data:

Date of Measurement: 01/16/2013 PDOP Reading: 1.7 Instrument Operator's Name: John Rice15. 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
757 FNL 1867 FEL 460 FSL 1850 FEL
 Sec: 34 Twp: 3N Rng: 66W Sec: 34 Twp: 3N Rng: 66W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No17. Distance to the nearest building, public road, above ground utility or railroad: 230 ft18. Distance to nearest property line: 230 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 44 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 ☐ Indian23. 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 ☒ No23b. 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):

SHL lease = NE of section 34, T3N, R66W. Lease map attached showing the entire Encana lease area covered by the wellbore, which equals 320 total acres. The horizontal wellbore crosses lease lines in the GWA spacing unit.

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 160

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
CONDUCTOR	22	16	30	0	80	80	80	0
SURF	12+1/4	9+5/8	40	0	800	100	800	0
1ST	8+3/4	7	26	0	7,848	445	7,848	500
2ND	6+1/8	4+1/2	13.5	0	11,915	167	11,915	7,548

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

33. Comments Encana requests the approval of a 318A(l).a.(1) and 318A(l).c(1) exception location as the well head is to be located outside of a GWA drilling window and further than 50' from an existing well. Request letter and waivers attached. This well is closer than 150' to the nearest permitted or producing BHL. A 318A.m. variance request letter and waivers are attached. Encana also requests the approval of the omission of open hole logs, request letter attached. Proposed spacing unit is E/2 of Sec.34-T3N-R66W.

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: Jevin Croteau

Title: Regulatory Analyst Date: 3/28/2013 Email: jevin.croteau@encana.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: Matthew Lee Director of COGCC Date: 4/27/2013

API NUMBER

05 123 37233 00

Permit Number: _____ Expiration Date: 4/26/2015

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.

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

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

Attachment Check List

Att Doc Num	Name
400393275	FORM 2 SUBMITTED
400393485	WELL LOCATION PLAT
400393486	PROPOSED SPACING UNIT
400393489	EXCEPTION LOC REQUEST
400393492	OTHER
400393499	30 DAY NOTICE LETTER
400393502	SURFACE AGRMT/SURETY
400393504	LEASE MAP
400393505	DEVIATED DRILLING PLAN
400393506	DIRECTIONAL DATA
400396313	VARIANCE REQUEST
400397092	OFFSET WELL EVALUATION

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Changed Mud Disposal to Offsite/Land Farming to match the 2A. Deleted Spacing Order Number and corrected Unit Configuration to GWA. Above changes were ok'd by operator. Exception Location Request and Waiver are in the same attachment. Requested that operator separate them in the future. Horizontal wellbore crosses lease lines within drilling and spacing unit; distance to lease line is 0'; distance to unit boundary is 460'. Ready to pass pending public comment.	4/9/2013 11:11:11 AM
Engineer	Evaluated offset wells for adequate cement coverage.	4/4/2013 10:47:21 AM
Agency	Passes completeness.	3/29/2013 9:05:29 AM

Total: 3 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	<p>Best Management Practice for a Horizontal Wellbore Fracturing Stimulation</p> <p>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.</p> <p>2. The operator will monitor the bradenhead pressure of all wells within 300 feet of the well to be fracture stimulated.</p> <p>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.</p> <p>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.</p>
Drilling/Completion Operations	<p>Anti-collision BMP:</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>Encana will comply with the "COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area", dated May 29, 2012.</p>

Total: 3 comment(s)