

FORM
2

Rev
12/05

State of Colorado Oil and Gas Conservation Commission

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Document Number:

400311640

Date Received:

08/16/2012

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) INC

4. COGCC Operator Number: 100185

5. Address: 370 17TH ST STE 1700

City: DENVER State: CO Zip: 80202-5632

6. Contact Name: JENNIFER LIND Phone: (720)876-5890 Fax: (720)876-6890

Email: JENNIFER.LIND@ENCANA.COM

7. Well Name: IONE Well Number: 1D-2H

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

9. Proposed Total Measured Depth: 11904

WELL LOCATION INFORMATION

10. QtrQtr: NWNE Sec: 2 Twp: 2N Rng: 66W Meridian: 6

Latitude: 40.173440 Longitude: -104.739780

Footage at Surface: 419 feet FNL 1337 feet FEL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 5078 13. County: WELD

14. GPS Data:

Date of Measurement: 07/27/2012 PDOP Reading: 1.8 Instrument Operator's Name: RICE

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

Footage at Top of Prod Zone: 592 FNL 886 FEL Bottom Hole: 460 FSL 1050 FEL
Sec: 2 Twp: 2N Rng: 66W Sec: 2 Twp: 2N 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: 1165 ft

18. Distance to nearest property line: 419 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 86 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		640	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):

T2N-R66W-SEC.2: ALL; SEC.4: S/2; SEC.8: NE/4, SW/4; SEC.10: E/2, NW/4

25. Distance to Nearest Mineral Lease Line: 460 ft 26. Total Acres in Lease: 1760

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	916	249	916	0
1ST	8+3/4	7	26	0	7,680	940	7,680	616
2ND	6+1/8	4+1/2	13.5	0	11,904	373	11,904	7,380

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

33. Comments ENCANA REQUESTS THE APPROVAL OF A RULE 318A(l).a.1 AND 318A(l).c.1 EXCEPTION LOCATION AS THE WELL HEAD WILL BE LOCATED OUTSIDE A GWA DRILLING WINDOW AND FURTHER THAN 50' FROM AN EXISTING WELL - REQUEST LETTER AND WAIVERS ATTACHED. ENCANA ALSO REQUESTS THE OMISSION OF OPEN HOLE LOGS - REQUEST LETTER ATTACHED. ENCANA ALSO REQUESTS THE APPROVAL OF A RULE 318A.m. EXCEPTION LOCATION AS THERE IS AN EXISTING WELL THAT FALLS WITHIN 150' OF THE PROPOSED LATERAL - REQUEST LETTER ATTACHED, NO WAIVER REQUIRED AS THE EXISTING WELL IS OPERATED BY ENCANA. PROPOSED SPACING UNIT IS T2N-R66W-SEC.2: ALL. ENCANA PLANS TO DRILL 13 HORIZONTAL WELLS SPACED ACROSS SECTION 2 AND BELIEVE THIS CONFIGURATION WILL EFFECTIVELY DRAIN THE 640 ACRE SPACING UNIT. ENCANA WILL COMPLY WITH COGCC POLICY FOR BRADENHEAD MONITORING DURING HYDRAULIC FRACTURING TREATMENTS IN THE GREATER WATTENBERG AREA DATED MAY 29, 2012.

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: JENNIFER LIND

Title: REGULATORY ANALYST Date: 8/16/2012 Email: JENNIFER.LIND@ENCANA.C

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: 9/21/2012

API NUMBER
05 123 36112 00

Permit Number: _____ Expiration Date: 9/20/2014

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 testing requirements 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 7" casing TD to a minimum of 200' above the Niobrara. Verify coverage with a cement bond log.

Attachment Check List

Att Doc Num	Name
2171254	AQUIFER DEPTH VERIFICATION
2481785	SURFACE CASING CHECK
400311640	FORM 2 SUBMITTED
400316739	WELL LOCATION PLAT
400316741	EXCEPTION LOC REQUEST
400316742	PROPOSED SPACING UNIT
400316747	VARIANCE REQUEST
400316748	MINERAL LEASE MAP
400316750	OTHER
400316751	TOPO MAP
400316752	30 DAY NOTICE LETTER
400316753	EXCEPTION LOC WAIVERS
400316755	DEVIATED DRILLING PLAN
400316756	DIRECTIONAL DATA

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	9/14/2012 4:01:28 PM
Engineer	Evaluated offset wells for adequate cement coverage.	8/28/2012 4:55:24 PM
Permit	Changed Objective formation from CODELL to NIOBRARA per operator. ok to pass.	8/28/2012 3:33:16 PM
Permit	Operator requests approval of a Rule 318Aa and Rule 318Ac exception location: Wellhead is to be located outside of a GWA drilling window and will be located more than 50' from an existing well location. Request and waivers attached.	8/27/2012 1:24:32 PM
Permit	Operator requests approval of a Rule 318Am exception location: Wellbore is to be located less than 150' from an existing wellbore. Request and waivers attached.	8/27/2012 1:24:31 PM
Permit	Reviewed and Approved Operator's request for omission of open hole logs.	8/27/2012 1:24:30 PM
Permit	Added Bradenhead Monitoring & Anti-collision BMP's per operator.	8/27/2012 1:16:02 PM

Total: 7 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. (attached)
Drilling/Completion Operations	Anti-collision: 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.

Total: 2 comment(s)