

FORM
2
Rev
08/13

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
400920948

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:
11/05/2015

TYPE OF WELL OIL GAS COALBED OTHER _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Well Name: HWY 52 Well Number: 4S-32H-O268
Name of Operator: ENCANA OIL & GAS (USA) INC COGCC Operator Number: 100185
Address: 370 17TH ST STE 1700
City: DENVER State: CO Zip: 80202-5632
Contact Name: Toby Sachen Phone: (720)876-5845 Fax: (720)876-6584
Email: toby.sachen@encana.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100017

WELL LOCATION INFORMATION

QtrQtr: SWSE Sec: 32 Twp: 2N Rng: 68W Meridian: 6
Latitude: 40.089354 Longitude: -105.024642

Footage at Surface: 598 feet FNL/FSL FSL 1944 feet FEL/FWL FEL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4991 County: WELD

GPS Data:
Date of Measurement: 05/14/2014 PDOP Reading: 1.3 Instrument Operator's Name: Jason Dahlman

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

Footage at Top of Prod Zone: FNL/FSL FSL 1044 FEL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL FEL
963 FSL 1044 FEL 460 FNL 1040 FEL
Sec: 32 Twp: 2N Rng: 68W Sec: 32 Twp: 2N Rng: 68W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) is committed to an Oil and Gas Lease.
 has signed the Oil and Gas Lease.
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

T2N R68W Sec. 32: S/2SE/4; T1N R68W Sec 5: NE/4

Total Acres in Described Lease: 240 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 616 Feet

Building Unit: 714 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 661 Feet

Above Ground Utility: 621 Feet

Railroad: 5280 Feet

Property Line: 342 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).

- Enter 5280 for distance greater than 1 mile.

- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.

- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit

- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.

- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 246 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Spacing Unit: T2N R68W, 6th P.M. E2 Section 32.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		320	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 11878 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

555 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Land application

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

McDonald Farms, Facility ID 431609 and Bella 18, Facility ID 431606 will be used.

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

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	36	0	800	100	800	0
1ST	8+3/4	7	26	0	7978	453	7978	500
2ND	6+1/8	4+1/2	13.5	0	11878	161	11878	7678

Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number

OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number _____
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments The pad has been built. Drilling the proposed wells will not require any pad expansion or additional surface disturbance. The location does not require a variance from any of the rules listed in Rule 306.d.(1).(A).(ii) and consultation with CDPHE.

I certify that there have been no changes to land use or lease description. The well construction plan has changed.

A Designated Setback Location Exception to Rule 604.b.(1)A. is being requested. Request letter is attached.

Nearest well completed in same formation is Brown 41-5, 123-30609

Nearest well penetration the formation is , Nelson E Unit 2 123-10538.

Wells within 150' of the treated portion of the wellbore: Anderson Trust C1 123-11882, Nelson E Unit 2 123-10538 operated by Encana.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 434554

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Toby Sachen

Title: Regulatory Analyst Date: 11/5/2015 Email: toby.sachen@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: 4/22/2016

Expiration Date: 04/21/2018

API NUMBER

05 123 43109 00

Conditions Of Approval

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.

<u>COA Type</u>	<u>Description</u>
	The Designated Setback BMP's were added to the Form 2A. Doc # 400949226 must be posted on location.
	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.. 2) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara and from 200' below Shannon to 200' above Sussex. Verify coverage with cement bond log. 3) Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
	Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. Brown C Unit 1 API: 05-123-11011; Nelson E Unit 2 API: 05-123-10538

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	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)
2	Drilling/Completion Operations	Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
3	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point to into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf
Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area. http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf

Attachment Check List

Att Doc Num	Name
400920948	FORM 2 SUBMITTED
400921927	PROPOSED SPACING UNIT
400921929	WELL LOCATION PLAT
400923027	EXCEPTION LOC REQUEST
400923029	DEVIATED DRILLING PLAN
400923031	DIRECTIONAL DATA
400925970	EXCEPTION LOC REQUEST
400925971	EXCEPTION LOC WAIVERS
400932058	OffsetWellEvaluations Data
400949071	OFFSET WELL EVALUATION
400949072	SURFACE CASING CHECK

Total Attach: 11 Files

General Comments

User Group	Comment	Comment Date
Permit	Final Review Completed.	4/18/2016 10:55:55 AM
Permit	Per operator added the Anti-Collision & Bradenhead BMP's. Changed the Open Hole Logging BMP to the correct one. Permitting Review Complete.	4/12/2016 11:50:32 AM
Permit	Open Hole Logging BMP submitted by operator.	4/12/2016 11:50:31 AM
Permit	ON HOLD: w/o form 2A to be submitted the end of January.	1/6/2016 2:25:09 PM
Engineer	Offset well evaluation: Evaluated offset wells within 1500' of the planned wellbores. Called operator. Distance from wellbore to nearest wellbore belonging to another operator was blank. Added distance to RASMUSSEN #37-29 of 555'.	12/7/2015 3:07:05 PM
Permit	Passed completeness.	11/9/2015 9:38:07 AM

Total: 6 comment(s)