

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:

400862504

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refilling ☐

ZONE TYPE SINGLE ZONE ☐ MULTIPLE ZONES ☒ COMMINGLE ZONES ☒

Sidetrack ☐

Date Received:

07/02/2015

Well Name: MCU

Well Number: 7010B-10 M02893

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: Jason Eckman

Phone: (970)285-2656

Fax: ()

Email: Jason.Eckman@encana.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100017

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 2 Twp: 8S Rng: 93W Meridian: 6

Latitude: 39.386999

Longitude: -107.746208

Footage at Surface: 507 feet FNL/FSL FSL 1258 feet FEL/FWL FWL

Field Name: MAMM CREEK

Field Number: 52500

Ground Elevation: 7770

County: GARFIELD

GPS Data:

Date of Measurement: 06/18/2015 PDOP Reading: 1.4 Instrument Operator's Name: B. Taggart

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

Footage at Top of Prod Zone: FNL/FSL FSL 1321 FEL 2136 FSL 1321 FEL 2136 FSL 1321 FEL
Sec: 10 Twp: 8S Rng: 93W Sec: 10 Twp: 8S Rng: 93W

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: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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.)

BHL Federal Lease Description:

COC 52814

Township 8 South, Range 93 West, 6th P.M.

Section 4: Lots 6-11, 13, 14, 15, SWNE, S2NW, S2 (All)

Section 5: Lot 5

Section 8: Lots 1, 2, 3, NENE, S2N2, S2

Section 9: All

Section 10: Lots 1-4, W2E2, W2 (All)

Section 14: SESE

Section 15: Lots 1, 2, W2NE, N2, S2 (All)

Total Acres in Described Lease: 2070 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC 52814

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1321 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 1209 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 Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 2378 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 3480 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Middleton Creek Unit Number: COC68997X

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ILES	ILES			
WILLIAMS FORK	WMFK			

DRILLING PROGRAM

Proposed Total Measured Depth: 12327 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 2378 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 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Other

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

Drilling Fluids Disposal Method - Recycled and reused offsite.

Cuttings Disposal Method - Onsite in cuttings management area (as shown on Construction Layout Drawings).

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	26	20	53.0	0	120	306	120	0
SURF	14+3/4	9+5/8	36.0	0	1760	1153	1760	0
1ST	8+3/4	4+1/2	11.6	0	12327	1608	12327	3700

☐ 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 _____

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

Location ID: _____

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: Kelly Hamden

Title: Regulatory Analyst Date: 7/2/2015 Email: Kelly.Hamden@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:  _____ Director of COGCC Date: 10/8/2015

Expiration Date: 10/07/2017

API NUMBER

05 045 23022 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.

COA Type

Description

	<p>(1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice.</p> <p>(2) Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). See attached notice.</p> <p>(3) Operator shall comply with the most current revision of the Mamm Creek Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). See attached notice.</p> <p>(4) Operator shall comply with the Notice to Operators Drilling Wells in the Buzzard, Mamm Creek, and Rulison fields, Garfield County and Mesa County – Procedures and Submittal Requirements for Compliance with COGCC Order Nos. 1-107, 139-56, 191-22, and 369-2 (July 8, 2010). See attached notice.</p> <p>(5) Operator shall provide cement coverage from the production casing shoe to a minimum of 200' above all Mesa Verde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log. This requirement shall supersede the top of cement requirements in the Mamm Creek Field Notice to Operators.</p>
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Best Management Practices

No	BMP/COA Type	Description
1	General Housekeeping	<ul style="list-style-type: none"> • Strategically apply fugitive dust control measures, including enforce established speed limits on Encana private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.
2	Wildlife	<ul style="list-style-type: none"> • Perform biological surveys (on-site) for each new development, using the most recent data sets for wildlife and wetland resources. • Perform pre-disturbance surveys when the on-site inspection and commencement of disturbance occur in different field seasons using the most recent data sets for wildlife and wetland resources. • Minimize the number, length and footprint of oil & gas development roads and use existing access roads where possible. • Combine utility infrastructure planning (gas, electric & water) when possible with roadway planning to avoid separate utility corridors.
3	Dust control	<ul style="list-style-type: none"> • Strategically apply fugitive dust control measures, including enforcing established speed limits on Encana private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.
4	Construction	<ul style="list-style-type: none"> • Wattles, vegetation buffers, slash (If pad construction begins following snowfall, veg will be pushed to slash berm), Topsoil windrows (Diversion & ROPs), terminal containment, run-on protection, ECM (Erosion Control Mulch), check dams, seeding, mulching, stabilization of unpaved surface (gravel), stormwater & snow storage containment, culverts with inlet & outlet protection are all construction BMP's to be implemented at the proposed location during all seasons. • Use multiple gathering lines placed in a single trench to minimize disturbance and construction, where appropriate, economically and technically feasible. • Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, where appropriate, economically and technically feasible. • Maintain a minimum of five feet of soil cover between the pipeline and the lowest point of the drainage or water body channel.
5	Drilling/Completion Operations	<ul style="list-style-type: none"> • One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from TD 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 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: 5 comment(s)

Applicable Policies and Notices to Operators

Mamm Creek Field Area Notice to Operators.

Piceance Rulison Field - Notice to Operators.

NW Colorado Notification Policy.

Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field).

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
400862504	FORM 2 SUBMITTED
400862508	DEVIATED DRILLING PLAN
400862512	DIRECTIONAL DATA
400862513	DIRECTIONAL DATA
400862514	OTHER
400862515	WELL LOCATION PLAT
400863152	LEASE MAP
400866395	SURFACE AGRMT/SURETY

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	10/5/2015 12:57:13 PM
OGLA	Operator has indicated on the Construction, Drilling & Waste Tab of the Form 2A and the Drilling & Waste Plans Tab of the associated Form 2s, drilling fluids will be recycled and buried onsite. This is not an acceptable disposal method for drilling fluids. COGCC has revised the Form 2A (#400855826) and associated Form2s (#400862396, #400862504, #400862516, and #400862525) as follows: Drilling Fluids Disposal:OFFSITE Other Disposal Description:Drilling Fluids Disposal Method - Recycled and reused offsite. Cuttings Disposal Method - Onsite in cuttings management area (as shown on Construction Layout Drawings). Email sent to operator on 09-28-15 indicating change.	9/28/2015 4:41:33 PM
Permit	Corrected acres in lease from 3318 to 2070 and added COC to the lease number from as per our maps and notified opr. Ready to pass.	3/6/2015 1:21:42 PM
Engineer	Evaluated existing offset oil and gas wells within 1,500 feet of this wellbore. No mitigation required. Offset water well check: There are no permitted water wells within 1 mile of this proposed surface hole location.	7/22/2015 10:39:19 AM
Permit	Passed completeness.	7/16/2015 7:39:16 AM
Permit	Casing information exceeds MD. Offset Well evaluation must be provided unless "No Offset Wells in 1500'" is denoted on the Offset Wells tab. Return to draft.	7/15/2015 8:03:28 AM
Permit	Well location plat is mislabeled as "PLAT" File currently labeled as "DEVIATED DRILLING PLAN" is incorrect. Deviated Drilling Plan is mislabeled as "DIRECTIONAL DATA". Missing Surface Use Agreement attachment. Casing information only provided to 7500'; must provide information to Measure Depth (MD). Offset Well evaluation must be provided unless "No Offset Wells in 1500'" is denoted on the Offset Wells tab. Return to draft.	7/10/2015 9:32:44 AM

Total: 7 comment(s)