FORM 2 Rev 08/16

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: 401106450

Date Received: 09/09/2016

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER un-planned

Refiling ☒

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: Peter McCue Well Number: 30-3

Name of Operator: GRMR OIL & GAS LLC COGCC Operator Number: 10524

Address: 370 INTERLOCKEN BLVD SUITE 550

City: BROOMFIELD State: CO Zip: 80021

Contact Name: Kristina Lee Phone: (303)659-9581 Fax: ( )

Email: krislee@skybeam.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20140073

WELL LOCATION INFORMATION

QtrQtr: Lot 7 Sec: 30 Twp: 5N Rng: 90W Meridian: 6

Latitude: 40.363164 Longitude: -107.538236

Footage at Surface: 217 Feet FNL/FSL FNL 2360 Feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 6482 County: MOFFAT

GPS Data:

Date of Measurement: 05/10/2016 PDOP Reading: 1.6 Instrument Operator's Name: K.G. Stewart

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

Footage at Top of Prod Zone: 685 FNL/FSL FNL 2048 FEL/FWL FWL

Bottom Hole: 2251 FNL/FSL FNL 1123 FEL/FWL FWL

Sec: 30 Twp: 5N Rng: 90W Sec: 30 Twp: 5N Rng: 90W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: (check all that apply)

☒ is the mineral owner beneath the location.

☒ 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.)

T5N-R90W Sec19: Lots 3, 4, S2SW except a 17.39 acre tract
Sec30: Resurvey Lot 7
T5N-R91W Sec24: S2SWNE, N2SE

Total Acres in Described Lease: 283 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:	1850	Feet
Building Unit:	2690	Feet
High Occupancy Building Unit:	5280	Feet
Designated Outside Activity Area:	5280	Feet
Public Road:	2320	Feet
Above Ground Utility:	2480	Feet
Railroad:	5280	Feet
Property Line:	167	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: 1171 Feet

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

Federal or State Unit Name (if appl): Williams Fork Unit Number: COC074956x

SPACING & FORMATIONS COMMENTS

This well is within a Federal Unit

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			

DRILLING PROGRAM

Proposed Total Measured Depth: 5648 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: _____ Feet ☒ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H_2S 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: Commercial Disposal

Cuttings Disposal: ONSITE Cuttings Disposal Method: Cuttings trench

Other Disposal Description:

Cuttings will be placed in an unlined trench.

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	104	0	80	200	80	0
SURF	17+1/2	13+3/8	54.5	0	758	473	758	0
1ST	12+1/4	9+5/8	36	0	3548	891	3548	0
OPEN HOLE	8+3/4			3548	5648			

☐ 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

Actual BHL lat/longs = 40.357578 / lattitude = -107.542675

Summary of un-planned sidetrack
i. After having drilled on plan at 4487 feet on target for a TD of 5609, the wellbore started caving. With difficulty the wellbore was back-reamed into the intermediate casing shoe set in the Niobrara at 3548 feet. The plan was to clean out the hole to current hole depth. In the process of getting the drill string to intermediate, the directional equipment was also damaged unknown to the directional team. When going back into the hole for cleanout, the drill-string side-tracked at 3670 feet. Normally direction readings are not taken during hole cleanout and reaming operations, but the MWD gamma started giving erroneous readings at 3740 feet, which led to taking a survey. That survey failed. The drill string was tripped for new directional equipment and when back in the hole at 3740 feet a survey was taken that showed the drill string was not in the original wellbore. The inadvertent sidetrack was discovered on Sunday evening, the 4th of September at ~1800 mt, the day before Labor day Monday. The new wellbore was in the same azimuth but it was high to the original by a few tens of feet. I made the decision to drill back to plan having not been fully aware of COCGG requirements. On resuming drilling, the new wellbore, which was high, never intersected the original wellbore, the new wellbore having angled slightly below the original wellbore. The well proceeded on the original plan to the extent the azimuth and inclination could be controlled in the faulted and rubleized Niobrara. Toward the end of the wellbore, angle was not maintained and the wellbore traversed from the Upper Niobrara to the middle of the Niobrara. A directional report is attached demonstrating plan versus original well-bore versus sidetrack.
ii. Total measured depth in the original wellbore 4487 on the way to 5609
iii. Casing depths: Surface at 758 protecting the Morapos aquafer between 479 feet and 670 feet (size 13.375), Final casing string into the Niobrara member of the Mancos at 3548 feet (size 9.625)
iv. No fish in the hole but hole caved, could not find original well-bore
v. No proposed plugs
vi. No proposed plugs
vii. Well side-tracked at 3670 as best can be determined
viii. Side track formation Niobrara (original targeted section)
ix. Side track targeted the same approximate bottom hole location

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 447090

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: Kristina Lee

Title: Regulatory Consultant Date: 9/9/2016 Email: krislee@skybeam.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: 9/11/2016

Expiration Date: 09/10/2018

API NUMBER
05 081 07829 01

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
	1)Operator shall comply with the most current revision of the Northwest Notification Policy. 2)Minimum surface casing setting depth requirements: 50' below the base of the Morapos Formation with the shoe in Mancos Shale or 729', as proposed by the operator, whichever is deeper. Full cement to surface is required for the surface casing; increase cement volume as necessary to accomplish that objective. Refer to COGCC's comment on this form regarding the operator's prognosed depth to the Morapos Formation. 3)Operator shall provide cement coverage from the intermediate casing shoe (9+5/8" First String) to a minimum of 200' above the surface casing shoe to provide provide isolation of all formations that are not otherwise covered by surface casing. Verify production casing cement coverage with a cement bond log.

Best Management Practices

No	BMP/COA Type	Description
1	Storm Water/Erosion Control	A Storm water management plan will be prepared and will meet all requirements of the COGCC & CDPHE. Stormwater BMPs will be put in place to control erosion prior to constructing the well pad and access road.
2	Material Handling and Spill Prevention	Spill Prevention Plans (SPCC) are in place to address material releases and to prescribe materials handling BMPs for the facility. “Good house-keeping” measures will be taken to ensure proper waste disposal.
3	Drilling/Completion Operations	Open-hole Resistivity Log with Gamma Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached.

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Policy
NW Colorado Notification Policy. http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num	Name
401106450	FORM 2 SUBMITTED
401106589	CORRESPONDENCE
401106617	DEVIATED DRILLING PLAN
401106618	WELL LOCATION PLAT
401106728	DIRECTIONAL DATA
401106772	WELLBORE DIAGRAM

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
Engineer	Emailed operator regarding surface and 1st string weights and sacks of cement (do not match with as drilled wellbore diagram attached). Revised casing and cement information per operator. Note that cement quantities on "as drilled" wellbore diagram attached are not correct. Operator states that current plan is to not run previously planned uncemented second string and complete as an open hole in the Niobrara.	9/9/2016 3:10:02 PM
Engineer	Offset water well check: There are no permitted water wells within one mile of this proposed surface hole location. Mancos Formation outcrops at the surface. A shallow, potential water source (weathered Mancos and/or Morapos) is apparent on offset electrical logs for Hamill #1 (081-06598, base at 740' MD, elev. 5620' MSL) and Gilbert Myers #1-29 (081-06310, base at 800' MD, elev. ~5800' MSL). The operator's drilling prognosis included with the deviated drilling plan shows the Morapos formation horizontal at this location with the base at 679'. COGCC concurs with the operator's plan to cement the intermediate casing (9+5/8" First String) into the surface casing. Surface casing coverage of the Morapos Formation is required, as specified in Condition of Approval #2.	9/9/2016 3:08:16 PM
Engineer	Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. Two offset wellbores are within 1500' and meet standards for Niobrara completions: 081-07818, Myers 19-11HA; 081-07822, Hamill 19-16HA.	9/9/2016 3:07:50 PM
Permit	LGD and public comment periods waived by COGCC Staff. Comment periods do not apply to this application for an unplanned sidetrack when drilling is in progress.	9/9/2016 2:19:56 PM
Permit	Passes completeness.	9/9/2016 2:04:35 PM
Permit	Returned to draft: --WBD required --TPZ and BHL footages required	9/9/2016 12:33:42 PM

Total: 6 comment(s)