

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:

401321017

APPLICATION FOR PERMIT TO:

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

Date Received:

09/06/2017

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER _____Refilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Green Grass

Well Number: 11-561-6

Name of Operator: APOLLO OPERATING LLC

COGCC Operator Number: 10051

Address: 1538 WAZEE ST STE 200

City: DENVER State: CO Zip: 80202

Contact Name: Tanya Lounsberry

Phone: (303)830-0888

Fax: (303)830-2818

Email: tlounsberry@apollooperating.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20060105

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 11 Twp: 5N Rng: 61W Meridian: 6

Latitude: 40.410150

Longitude: -104.182200

Footage at Surface: 600 Feet FNL/FSL FSL 830 Feet FEL/FWL FWL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4700

County: WELD

GPS Data:

Date of Measurement: 05/24/2017 PDOP Reading: 2.4 Instrument Operator's Name: Scott Sherard

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

 600 FSL 2280 FWL 600 FNL 2290 FWL
 Sec: 11 Twp: 5N Rng: 61W Sec: 2 Twp: 5N Rng: 61W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe 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: Bond

Surface damage assurance if no agreement is in place: Blanket

Surface Surety ID: 20080044

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.)

S/2 Section 11, T5N-R61W

Total Acres in Described Lease: 320 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: 5280 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 4752 Feet
Above Ground Utility: 560 Feet
Railroad: 5280 Feet
Property Line: 600 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: 300 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 600 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

The spacing unit will consist of the 640 acres of the E/2W/2 and W/2E/2 of Section 11 and the E/2W/2 and W/2E/2 of Section 2, Township 5 North, Range 61 West.

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		640	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 16124 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: 154 Feet ☐ No well belonging to another operator within 1,500 feet

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: Commercial Disposal

Cuttings Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

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
SURF	12+1/4	9+5/8	36	0	1500	193	1500	0
1ST	7+7/8	5+1/2	17	0	16124	2800	16124	0

☒ 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 Revised the distance to the nearest Non-operated well, from 1020', to 154', to the Fritzler Resources, Hendershot Et Al 13-11 well, this well is shut in at the time of this application. This well is scheduled to be plugged and abandoned.

This application is in a Comprehensive Drilling Plan No 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: Tanya Lounsberry

Title: Office Manager Date: 9/6/2017 Email: tlounsberry@apollooperating.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:  Director of COGCC Date: 4/14/2018

Expiration Date: 04/13/2020

API NUMBER

05 123 46717 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

	Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release and prior to stimulation or 2) If a delayed completion, 6-7 months after rig release and prior to stimulation. 3) Within 30 days after first production, as reported on Form 5A.
	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j and provide cement coverage from the end of production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Apollo Operating, LLC will adhere to the COGCC Policy for Bradenhead Monitoring effective May 29, 2012.
2	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: 2 comment(s)

Applicable Policies and Notices to Operators

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

<u>Att Doc Num</u>	<u>Name</u>
401321017	FORM 2 SUBMITTED
401321186	WELL LOCATION PLAT
401386091	DEVIATED DRILLING PLAN
401386093	DIRECTIONAL DATA
401406384	OffsetWellEvaluations Data
401406387	PROPOSED SPACING UNIT
401408727	OffsetWellEvaluations Data
401608610	OFFSET WELL EVALUATION

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Changed "Closed-Loop" to YES per OGLA discussion with operator.	04/14/2018
Permit	Final Review Completed.	01/12/2018
Permit	Open Hole Logging BMP submitted by operator. With operators concurrence changed the distance to mineral lease line to 0', changed the distance to nearest well in the same formation to 300', changed the Water Sampling Rule to 318A, changed distance to nearest unit boundry to 600', added the correct Open Hole Logging BMP. Permitting Review Complete.	12/12/2017
Permit	ON HOLD Requesting: 1. a change to distance to mineral lease line. 2. a change to distance to nearest well in the same formation. 3. a change to Water Sampling Rule. 4. a correction to Open Hole Logging BMP. 5. a correction to the nearest unit boundary.	12/04/2017
Engineer	Offset Wells Evaluated	11/01/2017
Engineer	Revised the distance to the nearest Non-operated well, from 1020', to 154', to the Fritzler Resources, Hendershot Et Al 13-11 well, this well is shut in at the time of this application. Added a comment to the Submit tab reflecting this.	11/01/2017
Engineer	Revised surface casing setting depth from 450' to 1500', and cement quantity proportionately, Minimum Surface casing setting depth for a monobore well. Operator advised and agreed. Changed the 1st Liner to a First String on the Casing tab, operator notified and agreed.	11/01/2017
Permit	Passed Completeness.	09/26/2017
Permit	Returned to draft for: - "Spacing & Formations" tab: the "Unit Configuration" should be "GWA" - "Offset Wells Evaluation": missing wellbore integrity contact email - "Operator BMP/COA" tab: missing anti-collision BMP - "Related Forms" tab: missing related 2A Document number and Name	09/20/2017
Permit	Returned to draft for: - "Surface & Minerals" tab: for "The right to construct..." cannot be "N/A" - "Surface & Minerals" tab: a Bond number is given for "Surface damage assurance...", but "N/A" is selected, this should be changed to "BLANKET" - "Spacing & Formations" tab: "318A" is not a valid Spacing Order Number. If you are purposing a new spacing unit then you will need to include an attachment "PROPOSED SPACING UNIT" - "Drilling & Waste Plans" tab: "Will a closed-loop drilling system be used?" cannot be blank - "Submit" tab: please review Rule 609 c. for requesting a waiver of Rule 609 - attachment "OFFSET WELL EVALUATION" should be in a spreadsheet format and uploaded to the "Offset Wells Evaluation" tab with a valid wellbore integrity contact email	09/15/2017

Total: 10 comment(s)