

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:

401073356

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:

07/06/2016

Well Name: Breniman Well Number: 5  
Name of Operator: EXTRACTION OIL & GAS LLC COGCC Operator Number: 10459  
Address: 370 17TH STREET SUITE 5300  
City: DENVER State: CO Zip: 80202  
Contact Name: Kamrin Ruder Phone: (720)9747743 Fax: ( )  
Email: kruder@extractionog.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: \_\_\_\_\_

WELL LOCATION INFORMATION

QtrQtr: NENW Sec: 16 Twp: 6N Rng: 67W Meridian: 6

Latitude: 40.492585

Longitude: -104.900157

Footage at Surface: 558 feet FNL/FSL FNL 2084 feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4796 County: WELD

GPS Data:

Date of Measurement: 07/08/2014 PDOP Reading: 1.2 Instrument Operator's Name: Ben Hardenbergh

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  
1099 FNL 310 FWL 858 FNL 460 FWL  
Sec: 16 Twp: 6N Rng: 67W Sec: 18 Twp: 6N Rng: 67W

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.)

N2NW4 and SWNW of Sec. 16, T6N, R67W

Total Acres in Described Lease: 120 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: 1078 Feet  
Building Unit: 1078 Feet  
High Occupancy Building Unit: 4897 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 1252 Feet  
Above Ground Utility: 2041 Feet  
Railroad: 4249 Feet  
Property Line: 365 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: 329 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

Distance from Completion portion of wellbore to nearest wellbore permitted or completed in the same formation is Breniman 4. Niobrara: Proposed spacing Unit is described as W2NW of Sec. 16, N2 of Sec 17, and the N2N2; S2NE; S2L1NW of Sec. 18.

## 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		680	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 17402 Feet

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

165 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S 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: OFFSITE Cuttings Disposal Method: Other

Other Disposal Description:

Cuttings will be disposed of by land spreading (COA for cuttings disposal on 2A)

Beneficial reuse or land application plan submitted? No

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	24	16	42	0	80	100	80	0
SURF	13+1/2	9+5/8	36	0	1596	550	1596	0
1ST	7+7/8	5+1/2	20	0	17402	1600	17402	1596

☐ 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

We are having trouble on the Breniman #5, we landed curve and have seen much more Shannon Springs exposure than anticipated. We drilled this based off of the previous 4 wells on the pad however the formation dips down here more aggressively than we had seen on this pad to date. This has caused us to expose the Shannon springs in the heel and start of the lateral on this well. We believe we have it handled, however at first sign of failed inhibition we will most likely sidetrack this well.

However after attempting to continue to drill this lateral we have encountered some integrity issues due to the Shannon Springs exposure. Given that our issues are above where an open hole sidetrack looks feasible, our plan now is to open hole sidetrack but using a cement plug to kick off, this will allow us to land lower and minimize our exposure greatly. This sidetrack will now have to be executed where the sidetrack email before was tentatively a plan.

With your permission we would like to place a 500' cement from 6900'-7400', we will allow this to setup and then dress the plug to 7000' and kick off. This will allow us to lower our landing targets and get in the Niobrara at landing as opposed to the Shannon Springs.

API Number - 0512340428

Total MD drilled to: 8000'

Surface casing - 9 5/8" 36# set at 1596'.

Proposed fish: None

The plan would be to open hole sidetrack with the use of 500' cement plug (6900-7400')

Proposed sidetrack point - 7000'

Objective formation of sidetrack: Niobrara

Proposed BHL: 858 FNL 460 FWL Sec 18, T6N, R67W (Same as original APD).

Email approval given by Mike Hickey on 07/02/2016

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 439436

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: Kamrin Ruder

Title: Drilling Technician Date: 7/6/2016 Email: kruder@extractionog.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: 7/7/2016

Expiration Date: 07/06/2018

API NUMBER

05 123 40428 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

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### Best Management Practices

#### No BMP/COA Type

#### Description

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### Applicable Policies and Notices to Operators

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

### Attachment Check List

#### Att Doc Num

#### Name

401073356	APD APPROVED
401073387	CORRESPONDENCE
401073586	WELLBORE DIAGRAM
401074139	FORM 2 SUBMITTED

Total Attach: 4 Files

### General Comments

#### User Group

#### Comment

#### Comment Date

Permit	Final Review Complete.	07/06/2016
Engineer	Change of TOC from 1500 to 1596 is unclear, but not critical. Adequate cement is shown.	07/06/2016
Permit	Unplanned Sidetrack for Breniman 5 (API# 123-40428-00). Permitting Review Complete.	07/06/2016
Permit	LGD and public comment periods waived by COGCC Staff. Comment periods do not apply to this application for an unplanned Sidetrack or Rig Skid when drilling is in progress.	07/06/2016
Permit	Final Review Completed.	07/06/2016
Permit	Returned to draft: missing Zone type, Proposed Spacing unit description. Requesting correction to lat/longs. (moved SHL), Correction to the Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation. Requesting correction to API#.	07/06/2016

Total: 6 comment(s)