

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER <u>SIDETRACK</u>	Refiling <input type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input checked="" type="checkbox"/>

Date Received:
01/23/2017

Well Name: Matrix Well Number: G-29HN

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: 20080034

WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 29 Twp: 6N Rng: 65W Meridian: 6

Latitude: 40.453025 Longitude: -104.688447

Footage at Surface: <u>581</u> Feet	FNL/FSL	FEL/FWL
<u>FSL</u> <u>2302</u> Feet	<u>FSL</u> <u>2302</u> Feet	<u>FWL</u> <u>2302</u> Feet

Field Name: GREELEY Field Number: 32760

Ground Elevation: 4708 County: WELD

GPS Data:
Date of Measurement: 07/10/2014 PDOP Reading: 1.7 Instrument Operator's Name: Alan Hnizdo

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

Footage at Top of Prod Zone: <u>465</u> Feet	FNL/FSL	FEL/FWL	Bottom Hole: <u>465</u> Feet	FNL/FSL	FEL/FWL
<u>FSL</u> <u>1790</u> Feet	<u>FSL</u> <u>1790</u> Feet	<u>FWL</u> <u>1790</u> Feet	<u>FNL</u> <u>1790</u> Feet	<u>FNL</u> <u>1790</u> Feet	<u>FWL</u> <u>1790</u> Feet

Sec: 29 Twp: 6N Rng: 65W Sec: 29 Twp: 6N Rng: 65W

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: applicant is owner

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.)

E2W2 Sec. 29, T6N, R65W.

Federal lease included within the lease map for BML lands covering the Railroad ROW.

Total Acres in Described Lease: 160 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: 553 Feet
 Building Unit: 553 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 298 Feet
 Above Ground Utility: 599 Feet
 Railroad: 1367 Feet
 Property Line: 239 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: 11/04/2014

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 09/02/2014

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: 330 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

Nearest wellbore permitted or completed in the same formation is Matrix H-29HN.

Niobrara: Proposed Spacing Unit is described as the E/2W/2 of Section 39, T6N, R65W

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		160	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 11509 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: 128 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? Yes

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: Commercial Disposal

Other Disposal Description:

Reeves Mud Fluid COGCC Facility 435839 will be used for offsite disposal.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 435839 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	1635	525	1635	0
1ST	7+7/8	5+1/2	20	0	11509	1080	11509	1500

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 drilling the Matrix G-29HN. We had a fault throw us out of the Nio A bench and right into the middle of the Sharron Springs. We came down at an 86 degree inclination trying to recover and minimize exposure, however, it has started to slough on us and we almost got stuck. With your permission we would like to pull back to 9,217' to sidetrack and adjust for the fault and knowing the dip angles we can keep the wellbore in zone.
API # - 05-123-40693-00
Total MD Drilled – 10,166'
Surface Casing – 9-5/8" 36# set at 1635'
Proposed Fish – None
Open hole sidetrack plan: Side track at 9,217' and change targets to stay in zone and adjust for the fault.
Depth of Sidetrack- 9,217' MD
Objective formation of sidetrack – Niobrara (same as APD)
Proposed BHL – Sec 29 – TWP 6N 65W 465 FNL 1790 FWL (same as approved sundry)
(E-mail approval given by Diana Burn 1/22/2017)

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

Location ID: 333308

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: 1/23/2017 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: Matthew Lee Director of COGCC Date: 1/26/2017

Expiration Date: 01/25/2019

API NUMBER
05 123 40693 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

	This Permit to Drill is approved subject to all the BMPs and COAs on the most recently approved Form 2A and any subsequently approved Form 4 for the Oil and Gas Location (Location ID #333308). The most recently approved Form 2A and any subsequent Form 4s containing applicable COAs for this location shall be posted onsite during construction, drilling, and completions operations.
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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. 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

401190919	FORM 2 SUBMITTED
401190946	WELLBORE DIAGRAM
401190948	CORRESPONDENCE

Total Attach: 3 Files

General Comments

User Group

Comment

Comment Date

Permit	Unplanned Sidetrack for Matrix G-29HN (API # 123-40693-00) Final Review Complete.	01/23/2017
Permit	Updated Waste Plans for Oil Based Mud. Permitting Review Complete.	01/23/2017
Permit	This form has passed completeness.	01/23/2017
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.	01/23/2017

Total: 4 comment(s)