

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:  
400711511

APPLICATION FOR PERMIT TO:

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

Date Received:  
10/20/2014

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER UNPLANNED

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: Nelson Farms Well Number: 4  
Name of Operator: EXTRACTION OIL & GAS LLC COGCC Operator Number: 10459  
Address: 1888 SHERMAN ST #200  
City: DENVER State: CO Zip: 80203  
Contact Name: Kaleb Roush Phone: (720)557-8322 Fax: ( )  
Email: kroush@extractionog.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130028

WELL LOCATION INFORMATION

QtrQtr: NWNW Sec: 28 Twp: 7N Rng: 67W Meridian: 6  
Latitude: 40.550378 Longitude: -104.906392

Footage at Surface: 788 feet FNL/FSL FNL 409 feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4972 County: WELD

GPS Data:

Date of Measurement: 04/25/2014 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: FNL/FSL FNL 551 FNL 460 FWL 564 FNL 2555 FWL 564  
Sec: 28 Twp: 7N Rng: 67W Sec: 2 Twp: 7N 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.)

TOWNSHIP 7 NORTH, RANGE 67 WEST, 6TH P.M.

SECTION 28: Part of the Northwest Quarter (NW/4) in Section 28, Township 7 North, Range 67 West, estimated to contain 101.8 acres more or less.

Total Acres in Described Lease: 102 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: 659 Feet

Building Unit: 659 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 390 Feet

Above Ground Utility: 343 Feet

Railroad: 5280 Feet

Property Line: 450 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: 05/13/2014

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 30 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 409 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 Lake-4-27 API #05-123-35687.

CODELL: Proposed Spacing Unit is N/2N/2 of Sec 28, and NWNW, NENW, NWNE of SEc 27.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
CODELL	CODL		280	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 14848 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 30 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.

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
SURF	13+1/2	9+5/8	36	0	797	425	797	0
1ST	8+3/4	7	26	0	7513	925		0
1ST LINER	6+1/8	4+1/2	13.5	7500	14848			

☒ 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

The Operator proposes to sidetrack a well in Section 28, Township 7 North, Range 67 West in Weld County, Colorado as follows:

SHL: 788' FNL 409' FWL - falls outside a legal GWA Drilling Window

Top of Production: 650' FNL 460' FWL

BHL: 663' FNL 2555 FWL - falls outside a legal GWA Drilling Window

Operator intends to drill the well to the Codell formation at 14,848' MD and 7,423' TVD.

See CORRESPONDENCE attachment for REQUIRED OPERATOR COMMENTS for UNPLANNED Sidetrack While Drilling. The pertinent comments are as follows:

"We are having an issue on the Nelson Farms 4 (API# - 05-123-4004-00). We drilled our curve and set 7" casing. The build rates at the end of the curve were significantly greater than expected, resulting in an inclination of 95 degrees.

This well was planned as a Codell. With the combination of higher than expected build rates and a strong down-dipping formation structure, we have not been able to get into the Codell yet. We have drilled to 10,419'. Here is a visual explanation of what we have seen so far: (see correspondence attachment)

We have spent too much time out of zone and need to sidetrack.

I would like to open hole sidetrack, if the State will allow it. Tentatively, I am planning to open hole sidetrack about 100' out of the shoe. We will cement this liner after sidetrack is complete and drilled to TD."

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

Location ID: \_\_\_\_\_

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: Kaleb Roush

Title: Drilling Technician Date: 10/20/2014 Email: kroush@extractionog.com

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: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

API NUMBER

05 123 40004 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.

## **Best Management Practices**

<b><u>No</u></b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>

### **Applicable Policies and Notices to Operators**

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

### **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
400711511	FORM 2 SUBMITTED
400711581	CORRESPONDENCE
400712248	DEVIATED DRILLING PLAN
400712311	WELLBORE DIAGRAM

Total Attach: 4 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Returned to draft: Requesting Deviated Drilling plan.	10/20/2014 2:16:00 PM

Total: 1 comment(s)