

**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>Unplanned</u>	Refiling <input type="checkbox"/>	Date Received: 01/03/2017
ZONE TYPE    SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input checked="" type="checkbox"/>	

Well Name: Burroughs South      Well Number: 13

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: 20130028

**WELL LOCATION INFORMATION**

QtrQtr: SENE      Sec: 14      Twp: 7N      Rng: 65W      Meridian: 6

Latitude: 40.574136      Longitude: -104.621097

Footage at Surface:	<u>2316</u>	Feet	<u>FNL</u>	<u>230</u>	Feet	<u>FEL</u>
			FNL/FSL			FEL/FWL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 4945      County: WELD

GPS Data:  
Date of Measurement: 06/04/2014    PDOP Reading: 1.1    Instrument Operator's Name: Dallas Nielsen

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

Footage at Top of Prod Zone:	<u>2619</u>	FNL	<u>460</u>	FEL	Bottom Hole:	<u>2646</u>	FNL	<u>460</u>	FEL
		FNL/FSL		FEL/FWL		FNL/FSL		FEL/FWL	

Sec: 14      Twp: 7N      Rng: 65W      Sec: 15      Twp: 7N      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: 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.)

E/2NE/4 and N/2SE SEC 14 7N 65W

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: 892 Feet  
 Building Unit: 892 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 217 Feet  
 Above Ground Utility: 974 Feet  
 Railroad: 5280 Feet  
 Property Line: 230 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: 10/07/2014

**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: 171 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**

Proposed Spacing Unit: S/2N/2 & N/2S/2 Sec 14-T7N-R65W & S/2N/2 & N/2S/2 Sec 15-T7N-R65W  
 640 Acres

**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		640	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 17370 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: 660 Feet  No well belonging to another operator within 1,500 feet

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? 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:

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	1572	550	1572	0
1ST	7+7/8	5+1/2	20	0	17370	1600	17370	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 were drilling the Burroughs South 13 and had substantial differences between seismic and what was really transpiring on location. This caused the well bore to be in the Fort Hays for much longer than we would have liked and were whipping out bits trying to recover. We crossed one fault to this point and we got Carlisle back in the samples, before doing any more damage we would like to pull back and recover by sidetracking. With your permission we would like to pull back to 7,600" to sidetrack and adjust for the fault and knowing the dip angles we can keep the wellbore in zone.

API # - 05-123-40739-00  
Total MD Drilled – 11,175'  
Surface Casing – 9-5/8" 36# set at 1572'  
Proposed Fish – None  
Open hole sidetrack plan: Side track at 7,600' and change targets to Carlisle and stay in zone.  
Depth of Sidetrack- 7,600' MD  
Objective formation of sidetrack – Codell (same as APD)  
Proposed BHL – Sec 15 – TWP 7N 65W 2646 FNL 460 FWL

Email approval given by Diana Burn (01/02/2017)

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

Location ID: 440224

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: 1/3/2017 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: 1/4/2017

Expiration Date: 01/03/2019

**API NUMBER**  
05 123 40739 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 #440224. 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. <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

401176246	FORM 2 SUBMITTED
401176260	CORRESPONDENCE
401176267	WELLBORE DIAGRAM
401177188	PUBLIC COMMENT-0

Total Attach: 4 Files

## General Comments

### User Group

### Comment

### Comment Date

Permit	Unplanned sidetrack for Burroughs South 13 (API # 123-40739-00) Final Review Completed.	01/03/2017
Permit	Permitting Review Complete.	01/03/2017
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.	01/03/2017
Permit	Passed Completeness.	01/03/2017
Permit	RTD: Missing Oil based mud. Missing open hole BMP Distanced to nearest well in same formation incorrect.	01/03/2017

Total: 5 comment(s)