

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:

401722995

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:

08/03/2018

Well Name: Sauter

Well Number: 24-19-2H

Name of Operator: EDGE ENERGY II LLC

COGCC Operator Number: 10671

Address: 1301 WASHINGTON AVE SUITE 300

City: GOLDEN

State: CO

Zip: 80401-6138

Contact Name: Erik Larsen

Phone: (720)599-3650

Fax: ( )

Email: elarsen@edgeenergy1.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170126

WELL LOCATION INFORMATION

QtrQtr: SENE Sec: 23 Twp: 8N Rng: 66W Meridian: 6

Latitude: 40.648370

Longitude: -104.736000

Footage at Surface: 2295 Feet FNL/FSL FNL 290 Feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 5053

County: WELD

GPS Data:

Date of Measurement: 06/06/2018 PDOP Reading: 1.8 Instrument Operator's Name: Duncan Hotchkiss

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

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FNL/FWL  
720 FNL 300 FWL 720 FNL 300 FEL  
Sec: 24 Twp: 8N Rng: 66W Sec: 19 Twp: 8N 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: Surface Use Agreement

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.)

T8N R66W: Sec. 24: NE/4 lying E of the Pierce Lateral

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: 1099 Feet

Building Unit: 1099 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 277 Feet

Above Ground Utility: 316 Feet

Railroad: 5280 Feet

Property Line: 249 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: 840 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 300 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

## 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	535-1018	1280	Secs. 24 & 19: ALL

## DRILLING PROGRAM

Proposed Total Measured Depth: 18298 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: 1260 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? 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 609

## 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?

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	26	16	65	0	80		80	0
SURF	13+1/2	9+5/8	36	0	1500	479	1500	0
1ST	8+3/4	5+1/2	20	0	18298	2982	18298	

☐ 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

Distance from completed portion of the wellbore to nearest wellbore permitted or completed in the same formation was measured to the proposed Sauter 24-19-4H using horizontal.

Distance to nearest permitted or existing wellbore belonging to another operator was measured to the dry and abandoned George Ball 1, API No. 05-123-05536, operated by Nebraska Drillers Inc.

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: Kimberly Rodell \_\_\_\_\_

Title: Permit Agent \_\_\_\_\_ Date: 8/3/2018 \_\_\_\_\_ Email: krodell@upstreampm.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: \_\_\_\_\_

API NUMBER

05

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

## 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.

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
Drilling/Completion Operations	Bradenhead tests shall be performed according to the following schedule and the Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release and prior to stimulation and 2) If a delayed completion, 6 months after rig release and prior to stimulation. 3) Within 30 days after first production, as reported on Form 5A.
Drilling/Completion Operations	Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 3). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. CHAMPLIN 311 AMOCO #B-1 API# 123-09855 GEORGE BALL #1 API# 123-05536

## **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	Rule 604.c.1: Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted, and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
2	Drilling/Completion Operations	Rule 604.c.(2)L. Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director. None planned for this well.
3	Drilling/Completion Operations	Rule 604.c.(2).O. Drilling and Completion-All loadlines shall be bullplugged or capped.
4	Drilling/Completion Operations	Bradenhead Monitoring: Operator acknowledges and will comply with COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
5	Drilling/Completion Operations	Anti-Collision: Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed wells. The anti-collision scan may include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument and compared against the proposed well-path with its respective error of uncertainty. If current surveys do not exist for the offset wells, operators may have gyro surveys conducted to verify bottom-hole location. The proposed well may only be drilled if the anti-collision review results indicate that the risk of collision is sufficiently low as defined by the anti-collision plan, with separation factors greater than 1.5, or if the risk of collision has been mitigated through other means including shutting in wells, plugging wells, increased drilling fluid in the event of lost returns or as is appropriate for the specific situation. In the event of an increased risk of collision, that risk will be mitigated to prevent harm to people, the environment or property. For the proposed well, upon conclusion of drilling operations, an as-constructed directional survey will be submitted to the COGCC with the Form 5.
6	Drilling/Completion Operations	Rule 604.c.(2)B.i Operator will be utilizing a closed loop system Blowout preventer equipment ("BOPE"). A double ram and annular preventer will be used during drilling. At least the drilling company shall have a valid well blowout prevention certification.
7	Drilling/Completion Operations	Rule 604.c.(2)J.ii Backup stabbing valves be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid. BOPE for well servicing operations: Adequate BOP equipment shall be used. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high-pressure fluid.
8	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 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: 8 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](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>
401722995	FORM 2 SUBMITTED
401723214	DEVIATED DRILLING PLAN
401723215	WELL LOCATION PLAT
401723217	DIRECTIONAL DATA
401724165	OffsetWellEvaluations Data
401724166	SURFACE AGRMT/SURETY

Total Attach: 6 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	317.r and s No active non-op wellbores within 150'.	10/25/2018
Permit (Rejected)	REJECTION COMMENT: This APD is being rejected per the Rejection Process criteria that a pad of Form 2's requiring a total of four or more attachments to be added will be rejected. This pad requires a corrected WELL LOCATION PLAT and DEVIATED DRILLING PLAN and Directional Drilling Data to a total of six APD's. Operator and COGCC staff have been consulted.	10/17/2018
Permit	Contacted Operator for the following corrections: - "Surface & Minerals" tab: for "minerals beneath this location will be produced" is selected as "YES", but the described lease is not under the surface location. - "Surface & Minerals" tab: the lease description is not in plain QtrQtr designation, please provide a Mineral Lease Map - "Spacing & Formations" tab: distance to nearest well issue - "Spacing & Formations" tab: spacing order 535-1018 states "The productive interval of the wellbore will be located no closer than 600 feet from the unit boundaries", however these are all 300' from the nearest unit boundary. - "Operator BMP/COA" tab: the "Rule 604" BMP's are related to the surface location, not the individual wells.	10/16/2018
Permit	Passed Completeness.	08/08/2018

Total: 4 comment(s)

### **Public Comments**

No public comments were received on this application during the comment period.