

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:

400902523

Date Received:

10/01/2015

#### 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 ☐

Well Name: Gunderson

Well Number: 20-03E

Name of Operator: PICEANCE ENERGY LLC

COGCC Operator Number: 10433

Address: 1512 LARIMER STREET #1000

City: DENVER State: CO Zip: 80202

Contact Name: Wayne P Bankert

Phone: (970)812-5310

Fax: (303)339-4399

Email: wbankert@laramie-energy.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120081

#### WELL LOCATION INFORMATION

QtrQtr: NESE Sec: 20 Twp: 9S Rng: 93W Meridian: 6

Latitude: 39.260817

Longitude: -107.784442

Footage at Surface: 1982 feet FNL/FSL FSL 174 feet FEL/FWL FEL

Field Name: BUZZARD CREEK

Field Number: 9500

Ground Elevation: 7475

County: MESA

GPS Data:

Date of Measurement: 08/15/2015 PDOP Reading: 1.5 Instrument Operator's Name: Braden Box

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
<u>670</u>	<u>FNL</u>	<u>825</u>	<u>670</u>	<u>FNL</u>	<u>825</u>
	<u>FEL</u>			<u>FEL</u>	
Sec: <u>20</u>	Twp: <u>9S</u>	Rng: <u>93W</u>	Sec: <u>20</u>	Twp: <u>9S</u>	Rng: <u>93W</u>

#### 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.)

Twn. 9S Rng. 93W 6th PM Mesa County, CO  
Sec 20: NE, SE, NENW

Total Acres in Described Lease: 360 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: 670 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 3318 Feet  
Building Unit: 3852 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 2856 Feet  
Above Ground Utility: 1443 Feet  
Railroad: 5280 Feet  
Property Line: 174 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: 260 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1758 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Buzzard Creek Unit Number: COC47597A

## SPACING & FORMATIONS COMMENTS

This well is inside the Buzzard Creek Federal Unit Participating Area.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
WILLIAMS FORK-ILES	WFILS			

## DRILLING PROGRAM

Proposed Total Measured Depth: 8478 Feet

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

260 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 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

Due to character limit(255), See submittal comments for Drilling Waste Management.

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	42.0	0	60	120	60	0
SURF	11	8+5/8	24.0	0	1581	306	1581	0
1ST	7+7/8	4+1/2	11.6	0	8478	1527	8478	1022

☐ 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

Location Drawing  
Production Layout  
Access Road Map  
Hydrology Map  
Stormwater  
Wildlife BMP's  
Submitted as part of Location Assessment Document No. 400849899

Disposal Description: (Drilling Waste Management)  
PE plans to drill the wells within this project boundary with a dewatering system with no need for a reserve pit. Drilling fluids are recycled and re-used with cuttings being de-watered and captured in a catch pan, stacked in a cuttings management area and allowed to dry. Once the cuttings are dry and satisfy the COGCC for rule 910 analytics, the cuttings will be stacked along the cut slope then buried and covered with a minimum of 3 feet of cover. This operation will occur after the completion of the wells.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ 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: Wayne P Bankert

Title: Snr. Reg. & Env. Coord. Date: 10/1/2015 Email: wbankert@laramie-energy.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: 11/20/2015

Expiration Date: 11/19/2017

API NUMBER

05 077 10279 00

## **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**

	The Operator shall monitor the bradenhead pressure of the proposed well and all offset wells under Operator's control which penetrate the stimulated formation and have a treated interval separation of 300 feet or less. Monitoring shall occur from 24 hours prior to stimulation and shall continue until 24 hours after stimulation is complete. Recording shall be at a frequency of at least once per 24 hours with the capability of recording the maximum pressure observed during each 24 hour period. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.
	(1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice.  (2) Operator shall comply with the Notice to Operators Drilling Wells in the Buzzard, Mamm Creek, and Rulison fields, Garfield County and Mesa County – Procedures and Submittal Requirements for Compliance with COGCC Order Nos. 1-107, 139-56, 191-22, and 369-2 (July 8, 2010). See attached notice.  (3) Operator shall provide cement coverage from the production casing shoe to a minimum of 200' above all Mesa Verde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log.

## **Best Management Practices**

### **No BMP/COA Type**

### **Description**

1	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged open-hole with a triple combo log (HRI w/ SP,GR, CAL and Spectral Density/Dual Spaced Neutron) from TD into the surface casing. All wells on the pad will have a radial analysis bond log with gamma-ray run on production casing from TD to surface after rig moves off pad. All wells not logged with an open hole log will have a cased hole NEO neutron emulated open hole log run from TD to surface. 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.
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Total: 1 comment(s)

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

Policy
NW Colorado Notification Policy. <a href="http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf">http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf</a>
Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field). <a href="http://cogcc.state.co.us/documents/reg/Policies/NTO_07082010.pdf">http://cogcc.state.co.us/documents/reg/Policies/NTO_07082010.pdf</a>
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>

## **Attachment Check List**

<u>Att Doc Num</u>	<u>Name</u>
400902523	FORM 2 SUBMITTED
400907283	DRILLING PLAN
400907286	DEVIATED DRILLING PLAN
400907294	DIRECTIONAL DATA
400909888	WELL LOCATION PLAT

Total Attach: 5 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Although the BHL is in the Buzzard Creek Unit, Spacing Order 369-5 establishes 100' set-backs and 10 acre density for the NE/4 of sec 20. Final review complete.	11/18/2015 3:23:14 PM
Permit	Corrected that minerals beneath the pad will be developed by this well as per operator. Ready to pass.	10/21/2015 2:19:20 PM
Engineer	Evaluated existing offset oil and gas wells within 1,500 feet of this wellbore. No mitigation required.  Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 185 feet.	10/5/2015 10:14:15 AM
Permit	Passed completeness.	10/2/2015 11:09:09 AM

Total: 4 comment(s)