

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:

401641299

## APPLICATION FOR PERMIT TO:

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

Date Received:

09/11/2018

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_Refilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Antelope

Well Number: O34-19-18MRLNB

Name of Operator: BONANZA CREEK ENERGY OPERATING COMPANY LLC

COGCC Operator Number: 8960

Address: 410 17TH STREET SUITE #1400

City: DENVER State: CO Zip: 80202

Contact Name: Brian Dodek

Phone: (720)2256653

Fax: ( )

Email: bdodek@bonanzacrk.com

## RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120018

## WELL LOCATION INFORMATION

QtrQtr: SWSE Sec: 19 Twp: 5N Rng: 62W Meridian: 6

Latitude: 40.378350

Longitude: -104.361259

Footage at Surface: 225 Feet FNL/FSL FSL 1268 Feet FEL/FWL FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4658

County: WELD

GPS Data:

Date of Measurement: 12/11/2017 PDOP Reading: 1.3 Instrument Operator's Name: CHAD MIEIRS

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

 470 FSL 2040 FEL 250 FSL 2190 FEL  
 Sec: 19 Twp: 5N Rng: 62W Sec: 18 Twp: 5N Rng: 62W

## LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe 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.)

Please see attached mineral lease description

Total Acres in Described Lease: 8115 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: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 291 Feet

Railroad: 5280 Feet

Property Line: 225 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: 102 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 470 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

Proposed Spacing Unit:  
Township 5N, Range 62W (Weld County):  
Section 18: SWSE, SESW  
Section 19: W2E2, E2NW, NESW

## 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		360	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 11350 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: \_\_\_\_\_ 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: Recycle/reuse

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
SURF	13+1/2	9+5/8	36	0	1600	743	1600	0
1ST	8+1/2	5+1/2	17	0	11350	1776	11350	

☒ 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 Windows/Twinning exception location waiver is included as an attachment.

The Antelope 34-19 [API #: 123-32353], operated by Bonanza Creek, is the nearest well in the same formation, the distance was measured in 2D. The well status is currently PR.

No wells owned by other operators are Producing, Temporarily Abandoned, or Shut-In within 150' of this wells productive lateral, therefore stimulation setback consent is not needed.

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: Ariana Solis

Title: Regulatory Analyst Date: 9/11/2018 Email: asolis@bonanzacrk.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: 10/19/2018

Expiration Date: 10/18/2020

### API NUMBER

05 123 48256 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

- 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad.
- 2) Comply with Rule 317.j and provide cement coverage from the end of production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.

	<p>Operator acknowledges the proximity of the listed wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 4). Operator will submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Operator will assure that the well's Bradenhead is open and monitored during the entire stimulation treatment – a person will monitor for any evidence of fluid, a Bradenhead test will be performed prior to the beginning of stimulation.</p> <p>Antelope 33-18 (API 123-25972) Antelope 22-18 (API 123-30513)Antelope 34-18 (API 123-30517)  Antelope 12-18 (API 123-30519) Antelope 18A (API 123-31798)Antelope 23-18 (API 123-31827)  Antelope 14-18 (API 123-31828) Antelope 24-18 (API 123-31829)Antelope 18C (API 123-31830)  Antelope 18I (API 123-31845) Antelope 13-18 (API 123-31852)Antelope 43-18 (API 123-31856)  Antelope 44-18 (API 123-31860) Antelope N-18 (API 123-35479)Antelope D-18 (API 123-35480)  Antelope H-18 (API 123-35481) Antelope E-18 (API 123-35482)Antelope KO-18HNB (API 123-36836)  Antelope O34-K31-18HNC (API 123-38705) Antelope T44-P41-18HC (API 123-38707)  Farr 2-19 (API 123-12088) Antelope 41-19 (API 123-27148)Antelope 42-19 (API 123-30509)  Antelope 43-19 (API 123-30510) Antelope 13-19 (API 123-30511)Antelope 14-19 (API 123-30512)  Antelope 19C (API 123-31808) Antelope 44-19 (API 123-31809)Antelope 21-19 (API 123-31859)  Antelope 22-19 (API 123-31861) Antelope 12-19 (API 123-31862)Antelope 24-19 (API 123-32352)  Antelope 34-19 (API 123-32353) Antelope 23-19 (API 123-32707)Antelope 19I (API 123-32710)  Antelope 33-19 (API 123-32711) Antelope 19G (API 123-32712)Antelope 32-19 (API 123-32713)  Antelope 31-19 (API 123-32737) Antelope L-19 (API 123-35125)Antelope P-19 (API 123-35126)  Antelope K-19 (API 123-35127) Antelope W-19 (API 123-35128)Antelope M-19 (API 123-35129)  Antelope R-19 (API 123-35130) Antelope H-19 (API 123-35131)Antelope F-19 (API 123-35132)  Antelope B-19 (API 123-35133) Antelope N-19 (API 123-35134)Antelope X-19 (API 123-35135)  Antelope J-F-19HZ (API 123-36058) Antelope O-K-19HZ (API 123-36089)  Antelope J14-F11-19HC (API 123-39036) Antelope 13-20 (API 123-33713)  Antelope 14-20 (API 123-33715) Antelope 11-20 (API 123-34023)Antelope 22-20 (API 123-34042)  Antelope 21-20 (API 123-34043) Antelope 12-20 (API 123-34044)Antelope A-20 (API 123-34911)  Antelope B-20 (API 123-34912) State Antelope F-J-30HNB (API 123-37288)  State Antelope U-Y-30HNB (API 123-38589)</p>
	<p>Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test:</p> <ol style="list-style-type: none"> <li>1) Within 60 days of rig release and prior to stimulation or</li> <li>2) If a delayed completion, 6 months after rig release and prior to stimulation.</li> <li>3) Within 30 days after first production, as reported on Form 5A.</li> </ol> <p>If a Bradenhead test reports a surface casing pressure greater than 200 psig, stimulation is not allowed until the Engineering Supervisor has been consulted.</p>

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	Wellbore Collision Prevention – Rule 317.r Prior to drilling operations, Bonanza Creek will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will 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, Operator may have gyro surveys conducted to verify bottom hole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment.
2	Drilling/Completion Operations	Rule 317.p Requirement to Log a Well One of the first wells drilled on the pad will be logged with an open-hole resistivity log with gamma-ray, from the kick-off point into the surface casing. All wells on the pad will have a cement bond log (CBL) 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 the type of log and the well (by API#) in which open-hole logs were run.
3	Drilling/Completion Operations	Bradenhead Monitoring Bonanza Creek will comply with the “COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area”, dated May 29, 2012

Total: 3 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

<b>Att Doc Num</b>	<b>Name</b>
401641299	FORM 2 RESUBMITTED
401757189	FORM 2 SUBMITTED
401757190	FORM 2 REJECTED
401759219	OffsetWellEvaluations Data
401759231	DIRECTIONAL DATA
401759233	SURFACE AGRMT/SURETY
401759234	PROPOSED SPACING UNIT
401759235	DEVIATED DRILLING PLAN
401759236	WELL LOCATION PLAT
401759237	EXCEPTION LOC WAIVERS
401759238	EXCEPTION LOC REQUEST
401759239	LEGAL/LEASE DESCRIPTION
401759241	FORM 2 SUBMITTED
401802851	OFFSET WELL EVALUATION

Total Attach: 14 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Open Hole Logging BMP submitted by operator. Pending - Requesting correction to Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation. With operator's concurrence changed the distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation and updated comment. Permitting Review Complete.  Final Review Completed.	10/10/2018
Permit	Passed completeness.	09/11/2018
Permit	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 complete and accurate Offset Well Evaluation for a total of 8 APD's. The Operator and COGCC staff have been consulted.	09/07/2018
Permit	Passed Completeness.	07/16/2018

Total: 4 comment(s)