

FORM
2

Rev
12/20

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:

402944199

Date Received:

02/02/2022

APPLICATION FOR PERMIT TO:

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

Amend ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: UNPLANNED SIDETRACK

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: STATE ANTELOPE

Well Number: E14-31-30XRLNB

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: Kate Miller

Phone: (303)241-6910

Fax: ()

Email: regulatory@civiresources.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120018

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWSE Sec: 31 Twp: 5N Rng: 62W Meridian: 6

Footage at Surface: 660 Feet FSL 2462 Feet FEL

Latitude: 40.350873 Longitude: -104.365929

GPS Data: GPS Quality Value: 1.2 Type of GPS Quality Value: PDOP Date of Measurement: 07/16/2018

Ground Elevation: 4550

Field Name: WATTENBERG

Field Number: 90750

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 31 Twp: 5N Rng: 62W Footage at TPZ: 10 FSL 458 FWL
Measured Depth of TPZ: 7262 True Vertical Depth of TPZ: 6269 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 30 Twp: 5N Rng: 62W Footage at BPZ: 470 FNL 416 FWL
Measured Depth of BPZ: 17112 True Vertical Depth of BPZ: 6269 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 30 Twp: 5N Rng: 62W Footage at BHL: 470 FNL 416 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELDMunicipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? Yes

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ Yes ☐ No

☒ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 10/29/2019

Comments: WOGLA19-0164 was approved on 10/29/2019

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Financial Assurance (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

☒ Fee

☒ State

☐ Federal

☐ Indian

☐ N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

5N-62W-Section 31: Lots 1, 2, 3, 4, E/2W/2, E/2, and other lands (Acreage: 8115)

Total Acres in Described Lease: 8115 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

Property Line: _____ 660 Feet

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		720	GWA

Federal or State Unit Name (if appl): _____

Unit Number: _____

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 470 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 198 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: _____ Feet

Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. _____

SPACING & FORMATIONS COMMENTS

Proposed Spacing Unit:
Township 4N, Range 62W (Weld County):
Section 6: N2NW (Lot 3, Lot 2)
Township 5N, Range 62W
Section 31: W2W2 (Lot 1- Lot 4)
Section 30: W2W2 (Lot 1- Lot4)
Township 5N, Range 63W
Section 25: E2E2
Section 36: E2E2

DRILLING PROGRAM

Proposed Total Measured Depth: 17112 Feet

TVD at Proposed Total Measured Depth 6269 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: 1083 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than

or equal to 100 ppm? No If yes, attach an H₂S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

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

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	13+1/2	9+5/8	J-55	36	0	1600	743	1600	0
1ST	8+1/2	5+1/2	P-110	17	0	17112	2786	17112	

☒ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Alluvium	0	0	90	90	1001-10000	USGS	Sampled well ~2 miles away (USGS DWQ Station SB00406302ABA)
Groundwater	Laramie-Fox Hills	90	90	150	150	1001-10000	Groundwater Sample	Permit 81431/receipt 9065621; Sampled by ALS on behalf of BCEI on 9/30/15; TDS 1,100
Confining Layer	Pierre Shale	150	150	370	370			
Groundwater	Upper Pierre Aquifer	370	370	1353	1330	501-1000	Electric Log Calculation	Antelope 24-31 (05-123-32876-0000)
Confining Layer	Pierre Shale	1353	1330	6794	6155			
Hydrocarbon	Niobrara	6794	6155	17037	6269			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The form 2 is being submitted for an unplanned sidetrack: The BHL and direction plan will remain the same as the original permit.

Explanation of the situation that has resulted in the need to sidetrack: The wellbore was not drilled to the intended well plan due to an error in transferring the directional plan data by the directional driller on the rig. After reviewing the as-drilled directional survey, we would like to drill a sidetrack surface hole that follows the original intended well plan.

Total measured depth reached in the wellbore being plugged back: 1,724' MD

Casing set – size(s) and measured depth(s):. No casing set.

Description of fish in the hole (if any) – including top and bottom measured depths: None

Description of proposed plugs: setting measured depths, heights, and cement volumes:
350' cement plug, set from 650' MD – 300' MD
295 sacks Class G cement, 15.8 ppg slurry, 1.184 cu ft/sk yield,
197 BBLs of 17.5 ppg Spacer

Type of cement to be used for all plugs, including slurry weight (ppg) and yield (cf/sk):
295 sacks Class G cement
15.8 ppg slurry
1.184 cu ft/sk,
197 BBLs of 17.5 ppg Spacer

Measured depth of proposed sidetrack kick-off point: 300' MD

Proposed objective formation(s) for sidetrack hole: Surface hole, target TD of 1625' MD

BHL target for sidetrack hole: Same BHL target as original wellbore.

This application is in a Comprehensive Area Plan No CAP #: _____

OGDP ID#: _____ OGDP Name: _____ Expiration Date: _____

Location ID: 471040 Location Name: Antelope O-31

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Aubrey Noonan

Title: Regulatory Analyst Date: 2/2/2022 Email: regulatory@civiresources.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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 2/3/2022

Expiration Date: 02/02/2025

API NUMBER

05 123 51160 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.

Condition of Approval

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	1) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 2) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.
Drilling/Completion Operations	Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
2 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	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 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	Operator will comply with the ³ COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
3	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with an open-hole resistivity log and 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 ³ Alternative Logging Program - 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.

Total: 3 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
402944199	FORM 2 SUBMITTED
402944369	OffsetWellEvaluations Data
402944521	WELLBORE DIAGRAM
402944523	CORRESPONDENCE

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	02/03/2022
OGLA	The Oil and Gas Location, its associated Form 2A materials, and the Form 2 Application for Permit to Drill were fully reviewed and approved prior to the commencement of drilling operations for this well. Because this is an application for an unplanned sidetrack with drilling in progress, an Oil and Gas Location Assessment review is not applicable to this ongoing operation.	02/03/2022
Permit	The following corrections were made with operator concurrence: Corrected this to an application to drill on the Well Name tab On the Local Government tab, corrected answer to YES On the Surface and Minerals tab, checked "State" under Minerals developed by this well On the Submit tab, corrected API number to -01	02/03/2022

Total: 3 comment(s)