

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:

403008684

Date Received:

04/28/2022

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Amend

Refile

Sidetrack

TYPE OF WELL OIL GAS COALBED OTHER: _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Well Name: State Antelope Well Number: 41-11-3HN
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: Jeff Annable Phone: (303)312-8529 Fax: ()
Email: jannable@civiresources.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120018

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWNW Sec: 2 Twp: 5N Rng: 62W Meridian: 6
Footage at Surface: 1688 Feet FNL 333 Feet FWL
Latitude: 40.432130 Longitude: -104.298840
GPS Data: GPS Quality Value: 1.6 Type of GPS Quality Value: PDOP Date of Measurement: 05/24/2021
Ground Elevation: 4645
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: 2 Twp: 5N Rng: 62W Footage at TPZ: 640 FNL 200 FWL
Measured Depth of TPZ: 6549 True Vertical Depth of TPZ: 6109 FNL/FSL FEL/FWL
Base of Productive Zone (BPZ)
Sec: 3 Twp: 5N Rng: 62W Footage at BPZ: 677 FNL 470 FWL
Measured Depth of BPZ: 11558 True Vertical Depth of BPZ: 6109 FNL/FSL FEL/FWL
Bottom Hole Location (BHL)
Sec: 3 Twp: 5N Rng: 62W Footage at BHL: 677 FNL 470 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: 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: 10/11/2021

Comments: Approved permit #1041WOGLA21-0010

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.)

T5N R62W
Sec 2-ALL

Total Acres in Described Lease: 640 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # OG-108513

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 5280 Feet
Above Ground Utility: 1582 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: 333 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	407-3311	805	T5NR62W SEC 2: W2W2; SEC 3-ALL

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: 667 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

DRILLING PROGRAM

Proposed Total Measured Depth: 11558 Feet TVD at Proposed Total Measured Depth 6109 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: 510 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? _____

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
CONDUCTOR	24	16	N/A	42	0	80	100	80	0
SURF	12+1/4	9+5/8	J-55	36	0	1500	400	1500	0
1ST	8+1/2	5+1/2	P-110	20	0	11558	1466	11558	

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	Laramie-Fox Hills	24	24	249	249	0-500	Electric Log Calculation	Grace State 2-1 (05-123-10130-0000)
Confining Layer	Pierre Formation	249	249	460	459			
Groundwater	Upper Pierre	460	459	1438	1419	501-1000	Electric Log Calculation	Grace State 2-1 (05-123-10130-0000)
Confining Layer	Base of Upper Pierre	1438	1419	3326	3269			
Hydrocarbon	Parkman Sandstone	3326	3269	3704	3639			Not productive in this area.
Confining Layer	Pierre Formation	3704	3639	4347	4269			
Hydrocarbon	Sussex Sandstone	4347	4269	4622	4539			Not productive in this area.
Confining Layer	Pierre Formation	4622	4539	4740	4654			
Hydrocarbon	Shannon Sandstone	4740	4654	4908	4819			Not productive in this area.
Confining Layer	Pierre Formation	4908	4819	6221	6019			
Subsurface Hazard	Sharon Springs	6221	6019	6549	6109			Sloughing shales
Hydrocarbon	Niobrara	6549	6109	11558	6109			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The nearest offset Well within the same unit permitted or completed in the same formation is the proposed State Antelope V-B-3HN.

This distance was measured in 2-dimensional space. The nearest existing or proposed wellbore belonging to another operator is the Wells Ranch AF05-675, API #05-123-42137.

This application is in a Comprehensive Area Plan _____ CAP #: _____

OGDP ID#: 481212 OGDP Name: State Antelope B-2 Pad Expiration Date: 03/29/2025

Location ID: 159738 Location Name: State Antelope B-2 Pad N/A

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

Signed: _____ Print Name: Jeff Annable

Title: Lead, Regulatory Date: 4/28/2022 Email: jannable@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: 6/24/2022

Expiration Date: 03/29/2025

API NUMBER 05 123 51725 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.

Condition of Approval

<u>COA Type</u>	<u>Description</u>
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Construction	If conductors are preset, operator shall comply with Rule 406.e.
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 is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
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 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log. 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.
4 COAs	

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Alternative Logging Program: An existing well on the pad was logged with open-hole resistivity log with 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 state "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.
2	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.

Total: 2 comment(s)

Attachment List

Att Doc Num	Name
403008684	FORM 2 SUBMITTED
403024280	DEVIATED DRILLING PLAN
403024281	WELL LOCATION PLAT
403025370	DIRECTIONAL DATA
403030351	OffsetWellEvaluations Data
403088812	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
Permit	Final Review Completed.	06/21/2022
Permit	Emailed the SLB to notify them of this pending application. SLB has no concerns with this application.	06/17/2022
OGLA	The Commission approved OGDG #481212 on 03/30/2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	04/28/2022

Total: 3 comment(s)