

FORM  
2

Rev  
05/22

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:

403088094

(SUBMITTED)

Date Received:

08/16/2022

APPLICATION FOR PERMIT TO

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

Amend ☐

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER: \_\_\_\_\_

Refile ☒

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: BJU M23A FED

Well Number: 13C-23-496

Name of Operator: CAERUS PICEANCE LLC

COGCC Operator Number: 10456

Address: 1001 17TH STREET #1600

City: DENVER

State: CO

Zip: 80202

Contact Name: Reed Haddock

Phone: (720)880-6369

Fax: (303)565-4606

Email: rhaddock@caerusoilandgas.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☐ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): \_\_\_\_\_

Federal Financial Assurance

☒ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ 10093

WELL LOCATION INFORMATION

Surface Location

QtrQtr: Lot 6 Sec: 23 Twp: 4S Rng: 96W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 1381 Feet FSL 1315 Feet FWL

Latitude: 39.684359

Longitude: -108.140742

GPS Data:

GPS Quality Value: 1.4

Type of GPS Quality Value: PDOP

Date of Measurement: 07/20/2022

Ground Elevation: 8107

Field Name: GRAND VALLEY

Field Number: 31290

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: 23 Twp: 4S Rng: 96W

Footage at TPZ: 2569 FSL 812 FWL

Measured Depth of TPZ: 8239

True Vertical Depth of TPZ: 8125 FNL/FSL FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 23 Twp: 4S Rng: 96WFootage at BPZ: 2534 FSL 718 FWLMeasured Depth of BPZ: 11934True Vertical Depth of BPZ: 11819 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 23 Twp: 4S Rng: 96WFootage at BHL: 2534 FSL 718 FWL

FNL/FSL

FEL/FWL

**LOCAL GOVERNMENT PERMITTING INFORMATION**County: GARFIELDMunicipality: 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.? No

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: \_\_\_\_\_ Date of Final Disposition: \_\_\_\_\_

Comments: Caerus Piceance LLC has contacted Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location and determined that per the Garfield County Land Use and Development Code, Table 3-403, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right or Exempt from Land Use Regulation at this site. Garfield County's disposition is not required for the purposes of this submittal.

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

Surface Owner Protection Bond (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.)

Sec. 23 T4S-R96W - All and other lands.

Total Acres in Described Lease: 2425

Described Mineral Lease is: ☐ Fee

☐ State

☒ Federal

☐ Indian

Federal or State Lease # COC064814

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet  
Building Unit: 5280 Feet  
Public Road: 4799 Feet  
Above Ground Utility: 5280 Feet  
Railroad: 5280 Feet  
Property Line: 3982 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.

## 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	WMFK	1-229		

Federal or State Unit Name (if appl): Big Jimmy

Unit Number: COC074105X

## 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: 2770 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: 285 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: 12434 FeetTVD at Proposed Total Measured Depth 12319 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 feetWill a closed-loop drilling system be used? YesIs H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater thanor equal to 100 ppm? No If yes, attach an H<sub>2</sub>S 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? NoWill salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? NoBOP 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	30	20	A252	54#	0	100	218	100	0
SURF	14+3/4	9+5/8	J55	36#	0	3000	710	3000	0
1ST	8+3/4	4+1/2	HCP110	11.6#	0	12434	1411	12434	3500
		9+5/8		Stage Tool	0	1400	312	1400	0

☐ 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	Green River	0	0	3400	3359	501-1000	CGS	
Confining Layer	Wasatch	3435	3394	5874	5794			
Hydrocarbon	Wasatch G	5874	5794	6179	6094			The Wasatch G is a non-productive zone in the referenced area of the basin.
Confining Layer	Fort Union	6179	6094	8239	8125			
Hydrocarbon	Ohio Creek	8239	8125	8623	8509	>10000	Produced Water Sample	
Hydrocarbon	Williams Fork	8623	8509	11434	11319	>10000	Produced Water Sample	
Hydrocarbon	Cameo	11434	11319	11934	11819	>10000	Produced Water Sample	
Hydrocarbon	Rollins	11934	11819	12434	12319	>10000	Produced Water Sample	

**OPERATOR COMMENTS AND SUBMITTAL**

Comments

The M23A-496 Pad is in the process of being built and has a valid Form 2A that expires October 12, 2023. The previously submitted directional plans, location survey plats, and casing design have been revised. The Operator, Caerus Piceance LLC is the surface owner.

This application is in a Comprehensive Area Plan \_\_\_\_\_

CAP #: \_\_\_\_\_

Oil and Gas Development Plan Name \_\_\_\_\_

OGDP ID#: \_\_\_\_\_

Location ID: 478266

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

Signed: \_\_\_\_\_

Print Name: Reed Haddock

Title: Regulatory Lead

Date: 8/16/2022

Email: rhaddock@caerusoilandgas.co

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: \_\_\_\_\_

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

**API NUMBER**

05 045 24373 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**

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## Best Management Practices

No BMP/COA Type	Description
1 Planning	Alternative Logging Program: The first well drilled on the pad will be logged with openhole resistivity log with gamma-ray log from TD 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 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 will state Alternative Logging Program No open-hole logs were run.
2 Planning	The associated well pad Location ID: 478266 was approved on October 13, 2020, by the COGCC. The BLM White River Field Office (WRFO) approved the Application for Permit to Drill (APD) for this well on December 1, 2020, under the land use planning review of the WRFO Record of Decision and Approved Resource Management Plan (ROD/RMP), as amended by the WRFO Oil and Gas Development Plan Approved Resource Management Plan Amendment and the Northwest Colorado Greater Sage-Grouse Approved RMPA. Please reference the attached WRFO Environmental Assessment from November 2020 and the Decision Record approved by the WRFO BLM on November 25, 2020, which specifically addresses the criteria in which the associated well pad was evaluated and approved.
3 Drilling/Completion Operations	<p>Closed loop system will be used.</p> <p><b>DRILL CUTTINGS:</b> The moisture content of all drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. All cuttings generated during drilling will be placed in a bermed portion of the well pad prior to onsite beneficial reuse.</p> <p>Drill cuttings will be put through shakers to minimize moisture and analyzed for Table 915-1 constituents. Cuttings that meet 915-1 levels will be backfilled into the cuttings management area along the northwestern portion of the pad.</p> <p><b>CONTAINMENT:</b> During drilling activities, Caerus utilizes a portable containment liner under the substructure of the drilling rig during drilling activities to protect shallow groundwater from any potential spills surrounding the rig during drilling. A liquid release would simply be vacuumed up from the liner. When drilling activity is completed, the liner is removed and transferred to the next drilling location. For permanent containment at the oil and gas location Caerus will ensure 150% secondary containment of volume in the single largest tank on the oil and gas location in compliance with Rule 603.o. During completions, Caerus may utilize 15-20 temporary tanks to hold frac fluid and flowback water. Tanks would be housed in a compacted earthen bermed area and secondary containment.</p> <p><b>FLOWBACK &amp; STIMULATION:</b> Two locations will be utilized as ancillary facilities for the BJU M23A-496 pad, consisting of the BJU N23-496 CDP and the BJU F26-496 Remote Frac Pad. The BJU M23A-496 will utilize 3-phase gathering which is consistent with other producing pads in the area. Gas, water and condensate will flow from the wells on the BJU M23A-496 to the BJU N23-496 CDP. At the CDP gas, water and condensate will all be separated and metered. The CDP will consist of separators, pumps, generators and tanks for oil storage and sales. Additionally, the CDP will support early life flowback operations. During flowback, generators, coolers, pumps and tanks will be utilized for separating, cooling and pumping water. Flowback operations will utilize the newly installed, up to 12", surface line that will carry gas, water and condensate from the BJU M23A-496 to the BJU N23-496 CDP.</p>

Total: 3 comment(s)

## Attachment List

Att Doc Num	Name
403122562	DEVIATED DRILLING PLAN
403122563	DIRECTIONAL DATA
403123637	WELL LOCATION PLAT
403137513	OffsetWellEvaluations Data

Total Attach: 4 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)



## **Public Comments**

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

