

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



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APPLICATION FOR PERMIT TO

Application type options: Drill (checked), Deepen, Re-enter, Recomplete and Operate, Amend, Refile (checked), Sidetrack. Well type: COALBED (checked). Zone type: SINGLE ZONE (checked).

Well details: Well Name: BJU M33 FED, Well Number: 25A-33-496, Operator: CAERUS PICEANCE LLC, COGCC Operator Number: 10456, Address: 1001 17TH STREET #1600, DENVER, CO 80202, Contact: Reed Haddock, rhaddock@caerusoilandgas.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance section with checkbox for operator assurance and Surety ID Number field.

Federal Financial Assurance section with checked checkbox for federal assurance and amount of \$317386.

WELL LOCATION INFORMATION

Surface Location details: QtrQtr: SWSW, Sec: 33, Twp: 4S, Rng: 96W, Meridian: 6, Footage at Surface: 770 Feet FSL, 1243 Feet FWL, GPS Data: 39.653383, -108.178436, Ground Elevation: 8404, Field Name: GRAND VALLEY, Field Number: 31290, Well Plan: Directional (checked).

Subsurface Locations details: Top of Productive Zone (TPZ) at Sec: 33, Twp: 4S, Rng: 96W, Footage at TPZ: 659 FSL, 1710 FEL, Measured Depth of TPZ: 7921, True Vertical Depth of TPZ: 7532.

Base of Productive Zone (BPZ)

Sec: 33 Twp: 4S Rng: 96W Footage at BPZ: 627 FSL 1799 FEL

Measured Depth of BPZ: 11418 True Vertical Depth of BPZ: 11028 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 33 Twp: 4S Rng: 96W Footage at BHL: 627 FSL 1799 FEL

FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: GARFIELD 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.? 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 Indian

Mineral 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. 33, T4S-R96W - All

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

Federal or State Lease # COC065556

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 798 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 770 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: 627 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: 420 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: 11618 Feet TVD at Proposed Total Measured Depth 11228 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 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? No

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 | 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 | 11618 | 1577 | 11618 | 3000 |

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 | 2542 | 2440 | 501-1000 | CGS | |
| Confining Layer | Wasatch | 2542 | 2440 | 5727 | 5440 | | | |
| Hydrocarbon | Wasatch G | 5727 | 5440 | 5992 | 5690 | | | The Wasatch G is a non-productive zone in the reference area of the basin. |
| Confining Layer | Fort Union | 5992 | 5690 | 7921 | 7532 | | | |
| Hydrocarbon | Ohio Creek | 7921 | 7532 | 8158 | 7769 | >10000 | Produced Water Sample | |
| Hydrocarbon | Williams Fork | 8158 | 7769 | 10760 | 10370 | >10000 | Produced Water Sample | |
| Hydrocarbon | Cameo | 10760 | 10370 | 11418 | 11028 | >10000 | Produced Water Sample | |
| Hydrocarbon | Rollins | 11418 | 11028 | 11618 | 11228 | >10000 | Produced Water Sample | |

OPERATOR COMMENTS AND SUBMITTAL

Comments The NPM M33-496 Pad is an existing pad with a valid Form 2A that expires May 28, 2023. This pad will be expanded in 2022. The previously submitted directional plans, location survey plats, and casing design stay the same. The Master Surface Use Agreement is still in place and valid with private landowner.

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

Oil and Gas Development Plan Name _____ OGDP ID#: _____

Location ID: 335937

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: 5/2/2022 Email: rhaddock@caerusoilandgas.co

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: 7/5/2022

Expiration Date: 07/04/2025

API NUMBER

05 045 24329 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

COA Type

Description

| | |
|--------------------------------|---|
| Interim Reclamation | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017). |
| Drilling/Completion Operations | 1)Operator shall comply with the most current revision of the Northwest Notification Policy. 2)Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). 3)Operator shall provide cement coverage from the production casing shoe (4 1/2" FIRST STRING) to a minimum of 200' above all Mesaverde 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. |
| 2 COAs | |

Best Management Practices

| No | BMP/COA Type | Description |
|-----------|--------------------------------|---|
| 1 | Planning | The associated well pad Location ID: 335937 was approved on May 29, 2020 by the COGCC. The BLM White River Field Office (WRFO) approved the Application for Permit to Drill (APD) extension request for this well on February 4, 2022, 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 July 2020 and the Decision Record approved by the WRFO BLM on July 6, 2020, which specifically addresses the criteria in which the associated well pad was evaluated and approved. |
| 2 | Planning | Alternative Logging Program: One of the first wells drilled on the pad will be logged with open-hole 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". |
| 3 | Drilling/Completion Operations | Closed loop system will be used. No pits will be built. Caerus will ensure 150 percent secondary containment for any potential volume of fluids that may be released. |

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Piceance Rulison Field - Notice to Operators.

<http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf>

NW Colorado Notification Policy.

http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf

Attachment List

| Att Doc Num | Name |
|--------------------|----------------------------|
| 403023881 | FORM 2 SUBMITTED |
| 403029103 | OffsetWellEvaluations Data |
| 403055199 | OffsetWellEvaluations Data |
| 403096004 | OFFSET WELL EVALUATION |

Total Attach: 4 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|---|---------------------|
| Permit | Final Review Completed. | 06/28/2022 |
| Engineer | Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. 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 in addition to locally-available geophysical logs and hydrogeologic information was used to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 155 feet. None of the water wells within one mile are for domestic use. Uploaded new version of offset well review with requested changes | 05/19/2022 |
| OGLA | This Location (ID #335937) and its associated Form 2A materials were fully reviewed during the OGLA review of this APD in accordance with current Rules. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. | 05/04/2022 |

Total: 3 comment(s)