

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:

402808067

Date Received:

01/27/2022

#### 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: CC Well Number: 0697-10-04E  
Name of Operator: LARAMIE ENERGY LLC COGCC Operator Number: 10433  
Address: 1700 LINCOLN ST STE 3950  
City: DENVER State: CO Zip: 80203  
Contact Name: Wayne P Bankert Phone: (970)812-5310 Fax: ( )  
Email: wbankert@laramie-energy.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20210135

#### WELL LOCATION INFORMATION

##### Surface Location

QtrQtr: NENW Sec: 10 Twp: 6S Rng: 97W Meridian: 6  
Footage at Surface: 119 Feet FNL 2488 Feet FWL  
Latitude: 39.544356 Longitude: -108.206648  
GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 04/23/2021  
Ground Elevation: 8592  
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: 10 Twp: 6S Rng: 97W Footage at TPZ: 1158 FNL 642 FEL  
Measured Depth of TPZ: 7851 True Vertical Depth of TPZ: 7433 FNL/FSL FEL/FWL

###### Base of Productive Zone (BPZ)

Sec: 10 Twp: 6S Rng: 97W Footage at BPZ: 1158 FNL 642 FEL  
Measured Depth of BPZ: 10538 True Vertical Depth of BPZ: 10120 FNL/FSL FEL/FWL

###### Bottom Hole Location (BHL)

Sec: 10 Twp: 6S Rng: 97W Footage at BHL: 1158 FNL 642 FEL  
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: Garfield County is the local government with jurisdiction over the siting of this proposed oil and gas location, Advance Notice was sent to Garfield County's Community Development Department, notifying Garfield County of Laramie's intentions to submit an Oil and Gas Development Plan to COGCC. The notification included the proposed locations, including the Cascade Creek 0610-21-41 well site. The notice letter was sent on July 14, 2021, to Garfield County pursuant to COGCC Rule 302.e.

Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location, determined that per the Garfield County Land Use and Development Code Table 3-403: Use Table, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right if 1) the Location does not require an Alternative Location Analysis or 2) the Operator does not request higher permissible noise and light levels from Garfield County. The CC 0610-21-41 Well Site Location did not require an Alternative Location Analysis and Laramie did not request from Garfield County increased permissible noise and light levels from Garfield County. Therefore, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use-by-right and are exempt from Land Use Regulation in the Resource Lands Zone District.

## 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.)

See Attached Lease Map

Total Acres in Described Lease: 8262 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  
Property Line: 2966 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-ILES     | WFILS          | 1-229                   | 0                             | T6S R97W: 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? No

If YES:

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

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: 642 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: 299 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: 10538 Feet

TVD at Proposed Total Measured Depth 10120 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 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

| <u>Casing Type</u> | <u>Size of Hole</u> | <u>Size of Casing</u> | <u>Grade</u> | <u>Wt/Ft</u> | <u>Csg/Liner Top</u> | <u>Setting Depth</u> | <u>Sacks Cmt</u> | <u>Cmt Btm</u> | <u>Cmt Top</u> |
|--------------------|---------------------|-----------------------|--------------|--------------|----------------------|----------------------|------------------|----------------|----------------|
| CONDUCTOR          | 26                  | 18                    | SA-53B       | 47.44        | 0                    | 90                   | 150              | 90             | 0              |
| SURF               | 14+3/4              | 9+5/8                 | J-55         | 36           | 0                    | 2530                 | 1130             | 2530           | 0              |
| 1ST                | 8+3/4               | 4+1/2                 | P110IC       | 11.6         | 0                    | 10538                | 1734             | 10538          | 2700           |

☐ Conductor Casing is NOT planned

## POTENTIAL FLOW AND CONFINING FORMATIONS

| <u>Zone Type</u> | <u>Formation /Hazard</u> | <u>Top M.D.</u> | <u>Top T.V.D.</u> | <u>Bottom M.D.</u> | <u>Bottom T.V.D.</u> | <u>TDS (mg/L)</u> | <u>Data Source</u>    | <u>Comment</u>   |
|------------------|--------------------------|-----------------|-------------------|--------------------|----------------------|-------------------|-----------------------|--|
| Groundwater      | Uinta                    | 0               | 0                 | 1029               | 1017                 | 0-500             | CGS                   | CGS - Nearby springs   |
| Confining Layer  | Green River/ Mahogany    | 1029            | 1017              | 3133               | 2985                 |                   |                       | Confining layer/Oil Shale. Mahogany permeability has been determined to be approximately 30 Nano Darcie  |
| Confining Layer  | Wasatch                  | 3133            | 2985              | 5047               | 4775                 |                   |                       |  |
| Hydrocarbon      | Wasatch 'G' Sand         | 5047            | 4775              | 5272               | 4985                 | 1001-10000        | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water. TDS: 750-2050 mg/L) |
| Hydrocarbon      | Fort Union               | 5272            | 4985              | 6912               | 6519                 | 1001-10000        | Produced Water Sample | Gas well water analysis: 05045122270000-0100 Salt Water  |
| Hydrocarbon      | Ohio Creek               | 6912            | 6519              | 7113               | 6707                 | >10000            | Other                 | SWD well water analysis: API: 05045068710000. CC 604-01 (Sec 4 6S 97W) Salt Water. TDS 10,850 mg/L   |
| Hydrocarbon      | Williams Fork            | 7113            | 6707              | 7851               | 7433                 | >10000            | Other                 | SWD well water analysis: API: 05045068710000. CC 604-01 (Sec 4 6S 97W) Salt Water. TDS 10,850 mg/L   |
| Hydrocarbon      | Top of Gas               | 7851            | 7433              | 9375               | 8957                 | >10000            | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water                      |
| Hydrocarbon      | Cameo                    | 9375            | 8957              | 9773               | 9355                 | >10000            | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water                      |
| Hydrocarbon      | Base Cameo Coal          | 9773            | 9355              | 9788               | 9370                 | >10000            | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water                      |
| Hydrocarbon      | Rollins                  | 9788            | 9370              | 10038              | 9620                 | >10000            | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water                      |
| Hydrocarbon      | Cozzette                 | 10038           | 9620              | 10258              | 9840                 | >10000            | Produced Water Sample | Gas well water analysis: API : 05045152520000 Section 17 T6S R97W  |
| Hydrocarbon      | Corcoran                 | 10258           | 9840              | 10538              | 10120                | >10000            | Produced Water Sample | Gas well water analysis: API : 05045152520000 Section 17 T6S R97W  |

## OPERATOR COMMENTS AND SUBMITTAL

Comments

A parasite string will be strapped to the outside of surface casing with injection mandrel set approximately 120 feet above the surface shoe. The parasite string will be utilized for air injection while drilling the production hole section which will lower Downhole hydrostatic pressure to mitigate loss circulation. The parasite string will be permanently cemented off after production casing is cemented. The parasite string outer diameter will be 1.9 inches with a weight of 2.76 pounds per foot. The new parasite string (Grade: J-55) will be set at a depth of 2410 feet.

The well is not located within High Priority Habitat.

There are no changes from the previous form 2.

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

OGDP ID#: 481179 OGD Name: 2021 Cascade Creek Oil and Gas DP Expiration Date: 02/23/2025

Location ID: 383264 Location Name: Cascade Creek (CC) 0610-21-41

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

Signed: \_\_\_\_\_ Print Name: Wayne P Bankert

Title: Reg. & Enviro. Manager Date: 1/27/2022 Email: wbankert@laramie-energy.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: 4/14/2022

Expiration Date: 02/23/2025

**API NUMBER**

05 045 24266 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**

| <b><u>COA Type</u></b>         | <b><u>Description</u></b>   |
|--------------------------------|---|
| Drilling/Completion Operations | <p>1)Operator shall comply with the most current revision of the Northwest Notification Policy.</p> <p>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).</p> <p>3)Operator shall provide cement coverage from the production casing shoe (4 1/2" FIRST STRING) to a minimum of 200' above the Wasatch G as defined by COGCC in the report "Casing and Cement Standards for Geologic Isolation Piceance Basin Bradenhead Monitoring Area and Nearby Fields," dated April 18, 2016, COGCC Document No. 2056199, Appendix A Field Scout Cards and Annotated Type Logs) to provide isolation of the Lower Wasatch, all Mesaverde Group formations including the Ohio Creek Formation, and underlying formations, if penetrated. Verify production casing cement coverage with a cement bond log.</p> <p>4)During stimulation, operator shall monitor the bradenhead, casing, and tubing pressure of the proposed well and all offset wells under Operator's control which penetrate the stimulated formation and have a treated interval separation of 300 feet or less. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.</p> |
| Interim Reclamation            | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).  |
| 2 COAs                         |   |

### **Best Management Practices**

| <b><u>No</u></b> | <b><u>BMP/COA Type</u></b>     | <b><u>Description</u></b>   |
|------------------|--------------------------------|---|
| 1                | Drilling/Completion Operations | Alternative Logging Program: One of the wells drilled on the pad will be logged with open-hole Resistivity Log and 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" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run. |

Total: 1 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](http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf)

### **Attachment List**

| <u>Att Doc Num</u> | <u>Name</u>            |
|--------------------|------------------------|
| 402808067          | FORM 2 SUBMITTED       |
| 402913266          | LEASE MAP              |
| 402913326          | WELL LOCATION PLAT     |
| 402913731          | DEVIATED DRILLING PLAN |
| 402913732          | DEVIATED DRILLING PLAN |
| 402919779          | DIRECTIONAL DATA       |
| 402928801          | SURFACE AGRMT/SURETY   |

Total Attach: 7 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u> |
|-------------------|--|---------------------|
| Permit            | Refile change comment added to Submit tab.   | 04/14/2022          |
| Permit            | Final Review Completed.  | 03/28/2022          |
| OGLA              | The Commission approved the Laramie Energy 2021 Cascade Creek OGD (ID #481179) on 02/24/2022 by Commission Order #510-74 for the Cascade Creek (CC) 0610-21-41 Oil and Gas Location (Location ID #383264) related to this Form 2.  | 03/21/2022          |
| Engineer          | Offset water well check: There are no permitted water wells within one mile of this proposed surface hole location.<br><br>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of the wellbores on this pad meet standards. No mitigation required.<br><br>Three offset wells produce from the Wasatch G formation within 1 mile. The producing wells have been taken into consideration for the cement coverage COA#3.<br>CC #0697-04-07E 045-23986 TA<br>CASCADE CREEK *697-15-01 045-10686 PR<br>CASCADE CREEK #697-09-54B 045-16009 PR | 02/15/2022          |
| Permit            | Passed Permit review.  | 02/04/2022          |
| Permit            | Corrected Surety Bond ID per operator.   | 02/01/2022          |

Total: 6 comment(s)