

FORM  
2  
Rev  
10/24

# State of Colorado Energy & Carbon Management Commission

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Document Number:

404366405

Date Received:

10/02/2025

## APPLICATION FOR PERMIT TO

Drill     Deepen     Re-enter     Recomplete and Operate    Amend

TYPE OF WELL OIL  GAS  COALBE  GEOTHERMAL  OTHER: \_\_\_\_\_

Refile

ZONE TYPE SINGLE ZONE  MULTIPLE ZONES  COMMINGLE ZONES

Sidetrack

Well Name: Currier BCU Well Number: 0993-16-08M  
Name of Operator: LARAMIE ENERGY LLC ECMC Operator Number: 10433  
Address: 1700 LINCOLN ST STE 3950  
City: DENVER State: CO Zip: 80203  
Contact Name: Lori Muhr Phone: (970)312-6479 Fax: ( )  
Email: LMuhr@Laramie-Energy.com

## FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

### ECMC Financial Assurance

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

Surety ID Number (if applicable): 20210135

### 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 \$ \_\_\_\_\_

## WELL LOCATION INFORMATION

### Surface Location

QtrQtr: SWNE Sec: 16 Twp: 9S Rng: 93W Meridian: 6

Footage at Surface: 2234 Feet FNL 2372 Feet FEL

Latitude: 39.277853 Longitude: -107.773622

GPS Data: GPS Quality Value: 1.6 Type of GPS Quality Value: PDOP Date of Measurement: 07/05/2023

Ground Elevation: 7472

Field Name: BUZZARD CREEK Field Number: 9500

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: 16 Twp: 9S Rng: 93W Footage at TPZ: 2613 FSL 2554 FEL

Measured Depth of TPZ: 5926 True Vertical Depth of TPZ: 5897 FNL/FSL FEL/FWL

|                                    |           |      |           |      |            |                 |   |     |             |         |
|------------------------------------|-----------|------|-----------|------|------------|-----------------|---|-----|-------------|---------|
| Base of Productive Zone (BPZ)      |           |      |           |      |            |                 |   |     |             |         |
| Sec:                               | <u>16</u> | Twp: | <u>9S</u> | Rng: | <u>93W</u> | Footage at BPZ: | <u>2613</u>                             | FSL | <u>2554</u> | FEL     |
| Measured Depth of BPZ: <u>8726</u> |           |      |           |      |            |                 | True Vertical Depth of BPZ: <u>8697</u> |     | FNL/FSL     | FEL/FWL |
| Bottom Hole Location (BHL)         |           |      |           |      |            |                 |   |     |             |         |
| Sec:                               | <u>16</u> | Twp: | <u>9S</u> | Rng: | <u>93W</u> | Footage at BHL: | <u>2613</u>                             | FSL | <u>2554</u> | FEL     |
|                                    |           |      |           |      |            |                 | FNL/FSL                                 |     | FEL/FWL     |         |

### LOCAL GOVERNMENT PERMITTING INFORMATION

County: MESA 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 and §37-90.5-107(2)(b)(I) C.R.S, the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas or Deep Geothermal Locations.

The Energy and Carbon Management Act and the Geothermal Resources Act provide 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.

Does the Relevant Local Government regulate the siting of Oil and Gas and Deep Geothermal 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: 07/25/2023

Comments: Mesa County, the local government with jurisdiction over the siting of this oil and gas location, determined that per the Mesa County Land Development Code Table 6-1: Use Table and Section 6.02(Q), "Oil and Gas Drilling " is an allowed use in the Agricultural, Forestry, Transitional (AFT) zone district. The subject parcel is designated by Mesa County as AFT zone district. Currier BCU 0993-16-07 well pad meets all the Mesa County zoning setback requirements for the AFT zone district. Advance Notice was sent to Mesa County's Community Development Department, notifying Mesa County of Laramie's intentions to submit an Oil and Gas Development Plan to the Commission. The notification included details regarding proposed operations at the Currier BCU 0993-16-07. The notice letter was sent on June 14, 2023, to Mesa County pursuant to ECMC Rule 302.e. The letter was received by Mesa County on June 20, 2023. While Oil and Gas Drilling is an allowed use, Oil and Gas Locations must be permitted within Mesa County. Laramie submitted an Oil and Gas Location Application to Mesa County on June 28, 2023. The Land Development Application Public Notice sign for the application was posted on the subject parcel, at the entrance to the Currier BCU 0993-16-07, on July 10th, 2023. The Mesa County Community Development Planning Division issued the Oil and Gas Site Location Approval Document (PRO2023-0191) on July 25, 2023. Representatives from Mesa County's Community Development Department attended the Pre-Application Onsite Meeting on June 12, 2023.

## GEOTHERMAL

### Well Overview

The following questions determine informational requirements based on Well type:

Which type of Geothermal Well is this? Select one of the following:

Will this well be constructed using cementing methodologies other than those listed in Rule 408.f?

If Yes, what method will be used:

Please describe the cementing method to be used in detail:

### Geothermal Resource Units

Fill out the information below to submit an application for a Geothermal Resource Unit (GRU) as part of the current permit application. This may also be completed later using a Form 4 Sundry.

Will this Well be in an existing GRU?

Are you submitting your application for a new GRU as part of the current application?

### SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS OR DEEP GEOTHERMAL LOCATION

Surface Owner of the land at this Well's Oil and Gas Or Deep Geothermal Location:  Fee  State  Federal  Indian

Mineral Owner beneath this Well's Oil and Gas Or Deep Geothermal 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.)

See Lease Map. Fee wells located within the Buzzard Creek Unit: Participating Area: COC047597X.

Total Acres in Described Lease: 4800 Described Mineral Lease is:  Fee  State  Federal  Indian  
Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 3287 Feet  
Building Unit: 3438 Feet  
Public Road: 3070 Feet  
Above Ground Utility: 2193 Feet  
Railroad: 5280 Feet  
Property Line: 1053 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                   |                               |                                      |

Federal or State Unit Name (if appl): Buzzard Creek

Unit Number: COC047597A

## 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: 1323 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: 310 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: 8726 Feet TVD at Proposed Total Measured Depth 8697 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                  | 16                    | SA-53B       | 36.94        | 0                    | 90                   | 120              | 90             | 0              |
| SURF               | 11                  | 8+5/8                 | J-55         | 24           | 0                    | 1500                 | 352              | 1500           | 0              |
| 1ST                | 7+7/8               | 4+1/2                 | HCP110       | 11.6         | 0                    | 8726                 | 1198             | 8726           |                |

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      | Freshwater/Groundwater   | 0               | 0                 | 600                | 600                  | 501-1000          | DWR                   | Hayward ranch water well domestic- stock & irrigation   |
| Confining Layer  | Wasatch                  | 600             | 600               | 2764               | 2750                 |                   |                       |   |
| Hydrocarbon      | Wasatch 'G' Sand         | 2764            | 2750              | 3218               | 3199                 | 1001-10000        | Other                 | Wasatch Producers Sec 5 & Sec 9 & Sec 15 T6S, R97W API: 5045200130001, 05045200230000, 05045106860000 (11/12/2020) (TDS: 760-2,050 mg/L. Fluid Present: Saltwater |
| Hydrocarbon      | Fort Union               | 3218            | 3199              | 4004               | 3978                 |                   |                       | Potential Hazard: Instability   |
| Hydrocarbon      | Lower Wasatch            | 4004            | 3978              | 4733               | 4704                 |                   |                       | Fluid Present: Saltwater  |
| Hydrocarbon      | Ohio Creek               | 4733            | 4704              | 5146               | 5117                 | >10000            | Produced Water Sample | Ohio Creek 4996' 4918' LC/SWD zone SW 45,000 Wells API# 05077087650000 Buzzard Creek 22-3   |
| Hydrocarbon      | Williams Fork            | 5146            | 5117              | 5926               | 5897                 | >10000            | Produced Water Sample | Well API# 05077087650000 Buzzard Creek 22-3 Potential Hazard: Loss circulation; Fluid Present: Saltwater  |
| Hydrocarbon      | Top of Gas               | 5926            | 5897              | 7190               | 7161                 | >10000            | Produced Water Sample | Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API#05077093410000 Water TDS: 40,000 mg/L  |
| Hydrocarbon      | Cameo                    | 7190            | 7161              | 7688               | 7659                 | >10000            | Produced Water Sample | Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API#05077093410000 Water TDS: 40,000 mg/L  |
| Hydrocarbon      | Rollins                  | 7688            | 7659              | 8218               | 8189                 | >10000            | Produced Water Sample | Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API#05077093410000 Water TDS: 40,000 mg/L  |
| Hydrocarbon      | Cozzette                 | 8218            | 8189              | 8380               | 8351                 | >10000            | Produced Water Sample | Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API#05077093410000 Water TDS: 40,000 mg/L  |
| Hydrocarbon      | Corcoran                 | 8380            | 8351              | 8551               | 8522                 | >10000            | Produced Water Sample | Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API#05077093410000 Water TDS: 40,000 mg/L  |
| Hydrocarbon      | Mancos                   | 8551            | 8522              | 8726               | 8522                 | >10000            | Produced Water Sample | Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API#05077093410000 Water TDS: 40,000 mg/L  |

### OPERATOR COMMENTS AND SUBMITTAL

Comments



## CONDITIONS OF APPROVAL, IF ANY LIST

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.

| <u>COA Type</u>                | <u>Description</u>  |
|--------------------------------|---|
| Drilling/Completion Operations | Operator acknowledges the proximity of the listed wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Operator will monitor casing (surface and production) pressures during the entire stimulation treatment. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and ECMC Engineering notified. Stimulation shall not resume without explicit approval from ECMC Engineering. Within 60 days after stimulation is complete, a Form 4 Sundry shall be submitted for each offset well on this list describing how Option 4 work was completed and include a summary of the monitoring details.<br><br>077-08757 CURRIER FAMILY *16-3 |
| Drilling/Completion Operations | Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:<br>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 150 psig is observed or if there is evidence of communication, Operator must contact ECMC engineering for approval prior to stimulation.<br>2) Within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.   |
| Drilling/Completion Operations | 1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad.<br>2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Wasatch G Formation. Verify coverage with a cement bond log.<br>3) Operator shall comply with the most current revision of the Northwest Notification Policy.   |
| Construction                   | If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).   |
| Drilling/Completion Operations | Operator will log two (2) additional wells during the second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for a total of three wells logged.  |
| Interim Reclamation            | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).  |
| 6 COAs                         |   |

## Operator Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u>            | <u>Description</u>  |
|-----------|--------------------------------|---|
| 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)

## ATTACHMENT LIST

| <u>Att Doc Num</u> | <u>Name</u>                |
|--------------------|----------------------------|
| 404366405          | FORM 2 SUBMITTED           |
| 404371509          | DIRECTIONAL DATA           |
| 404373462          | MINERAL LEASE MAP          |
| 404373468          | DEVIATED DRILLING PLAN     |
| 404373469          | DEVIATED DRILLING PLAN     |
| 404373470          | DEVIATED DRILLING PLAN     |
| 404373525          | SURFACE AGRMT/SURETY       |
| 404375712          | WELL LOCATION PLAT         |
| 404377240          | OffsetWellEvaluations Data |
| 404419418          | OFFSET WELL EVALUATION     |

Total Attach: 10 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u> |
|-------------------|--|---------------------|
| Permit            | Added comment for explanation of Amended application to Submit tab per operator.   | 10/22/2025          |
| Permit            | Final Review Complete.   | 10/16/2025          |
| OGLA              | The Commission approved OGDG #485488 on January 24, 2024 for the Oil and Gas Location related to this Form 2. OGLA task passed.  | 10/16/2025          |
| Permit            | Changed elevation to match plat.<br>Changed minimum distance from the Completed Zone of this Well to the Unit Boundary per operator<br>Changed Participating Area to COC047597X to match ECMC map<br>Added Operator's Wellbore Integrity Contact Email per operator<br>Passed Permitting review  | 10/09/2025          |
| Engineer          | NOTE: COA for cement coverage of production casing has changed from previously approved Form 2 Doc # 403671745. Removed TOC for production casing cement tab, please follow COA for cement requirement.<br>Well is within BMA area.<br>16 water wells within 1 mile, 47 water wells within 2 miles, deepest water well 400'.<br>surface casing coverage suffice.<br>3 offset wells within 1500', Offset well evaluation completed. 1 well has bradenhead history now on BH plan.<br>Emailed option 4 and cement requirement. | 10/08/2025          |

Total: 5 comment(s)