

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:

402880494

Date Received:

05/25/2022

APPLICATION FOR PERMIT TO

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

Amend ☐

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER: _____

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: CC Well Number: 0697-10-12E
Name of Operator: LARAMIE ENERGY LLC COGCC Operator Number: 10433
Address: 1700 LINCOLN ST STE 3950
City: DENVER State: CO Zip: 80203
Contact Name: Katy Middleton Phone: (970)985-8240 Fax: ()
Email: kmiddleton@laramie-energy.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): 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: SENE Sec: 15 Twp: 6S Rng: 97W Meridian: 6

Footage at Surface: 1472 Feet FNL/FSL 651 Feet FEL/FWL
FNL FEL

Latitude: 39.526176 Longitude: -108.199056

GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 09/16/2020

Ground Elevation: 8516

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: 1461 FSL 667 FEL
Measured Depth of TPZ: 7864 True Vertical Depth of TPZ: 7186 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 10 Twp: 6S Rng: 97W Footage at BPZ: 1461 FSL 667 FEL
Measured Depth of BPZ: 10551 True Vertical Depth of BPZ: 9873 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 10 Twp: 6S Rng: 97W Footage at BHL: 1461 FSL 667 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: 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 0697-15-08 well pad. 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 0697-15-08 Well Pad 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 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 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: 1387 Feet

Building Unit: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 325 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):

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: 667 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: 325 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: 10551 Feet

TVD at Proposed Total Measured Depth 9873 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	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	10551	1734	10551	2700

☐ 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	Uinta	30	30	776	770	0-500	CGS	CGS - Nearby Springs
Confining Layer	Green River/ Mahogany	776	770	2891	2738			Confining layer/Oil Shale. Mahogany permeability has been determined to be approximately 30 Nano Darcie
Confining Layer	Wasatch	2891	2738	5167	4738			
Hydrocarbon	Wasatch 'G' Sand	5167	4738	5408	4948	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	5408	4948	6924	6272	1001-10000	Produced Water Sample	Gas well water analysis: 05045122270000-0100 Salt Water
Hydrocarbon	Ohio Creek	6924	6272	7125	6460	>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	7125	6460	7864	7186	>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	7864	7186	9388	8710	>10000	Produced Water Sample	Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water
Hydrocarbon	Cameo	9388	8710	9786	9108	>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	9786	9108	9801	9123	>10000	Produced Water Sample	Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water
Hydrocarbon	Rollins	9801	9123	10551	9873	>10000	Produced Water Sample	Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water

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.

This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name 2021 Cascade Creek Oil and Gas DP OGDID #: 481179
Location ID: 481743

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

Signed: _____ Print Name: Katy Middleton

Title: Regulatory Specialist Date: 5/25/2022 Email: kmiddleton@laramie-

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: 7/14/2022

Expiration Date: 02/23/2025

API NUMBER

05 045 24529 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>
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>
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
2 COAs	

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>
402880494	FORM 2 SUBMITTED
403042950	DIRECTIONAL DATA
403042951	DEVIATED DRILLING PLAN
403042952	DEVIATED DRILLING PLAN
403042953	LEASE MAP
403042954	WELL LOCATION PLAT
403059413	OffsetWellEvaluations Data
403085418	OffsetWellEvaluations Data

403106051	OFFSET WELL EVALUATION
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Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	07/13/2022
Permit	Checked box for COGCC Financial Assurance Removed Unit Acreage and Unit Configuration data	06/29/2022
Permit	Passed Permitting review.	06/27/2022
Engineer	Offset well CASCADE CREEK #697-15-01 Operated by Laramie Energy produces from the Wasatch G formation and is within 1 mile of the proposed wellbores. See COA#3 for cement coverage requirements. Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. There are no domestic water wells within 1 mile Changed production casing top to 0 ft. Uploaded new offset well review to include 2 wells originally omitted	06/21/2022
Permit	Corrected elevation to match plat.	06/21/2022
OGLA	The Commission approved OGDG #481179 on 02/24/2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	05/27/2022

Total: 6 comment(s)