

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:

403258906

Date Received:

05/24/2023

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: BCU FED

Well Number: 0993-14-07W

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): _____

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 \$ 25000

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWSW Sec: 14 Twp: 9S Rng: 93W Meridian: 6

Footage at Surface: 1224 Feet FSL 568 Feet FWL

Latitude: 39.272688 Longitude: -107.744861

GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP

Date of Measurement: 12/05/2022

Ground Elevation: 7398

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: 14 Twp: 9S Rng: 93W Footage at TPZ: 2055 FNL 1070 FWL

Measured Depth of TPZ: 6515 True Vertical Depth of TPZ: 6119 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 14 Twp: 9S Rng: 93W Footage at BPZ: 2055 FNL 1070 FWL
Measured Depth of BPZ: 8265 True Vertical Depth of BPZ: 7869 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 14 Twp: 9S Rng: 93W Footage at BHL: 2055 FNL 1070 FWL
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., 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: Approved Date of Final Disposition: 09/14/2022

Comments: 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. The BCU 14L meets all the Mesa County zoning setback requirements for the AFT zone district. Laramie submitted an Oil and Gas Location Application to Mesa County on August 22, 2022. Mesa County assigned "PRO2022-0271" as the project number for the application. The Land Development Application Public Notice sign for the application was posted on the subject parcel, at the entrance to the BCU 14L, on August 28, 2022. The public notice signed was posted for more than 15 days. The Mesa County Community Development Planning Division issued the Oil and Gas Site Location Approval Document on September 14th, 2022.

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 Schedule.

Total Acres in Described Lease: 2405

Described Mineral Lease is: ☐ Fee

☐ State

☒ Federal

☐ Indian

Federal or State Lease # COC009393

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1105 Feet

Building Unit: 1426 Feet

Public Road: 1095 Feet

Above Ground Utility: 1095 Feet

Railroad: 5280 Feet

Property Line: 622 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		Section 14: ALL

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

Unit Number: COC0047597A

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: 1070 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: 847 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: 8265 Feet

TVD at Proposed Total Measured Depth 7869 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	16	SA-53B	36.94	0	84	150	84	0
SURF	11	8+5/8	J-55	24	0	1500	269	1500	0
1ST	7+7/8	4+1/2	HCP110	11.6	0	8265	1108	8265	1800

☐ 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	Freshwater/Groundwater	0	0	600	600	501-1000	DWR	Hayward ranch water well domestic – stock & irrigation. Water TDS: 300-1500 mg/L
Confining Layer	Wasatch	600	600	2788	2639			N/A
Hydrocarbon	Wasatch 'G' Sand	2788	2639	3426	3227	1001-10000	Other	Wasatch Producers Sec 5 & Sec 9 & Sec 15 T6S, R97W API: 05045200130001, 05045200230000, 05045106860000 (11/12/2020) (TDS: 760-2,050 mg/L. Fluid Present: Saltwater
Hydrocarbon	Fort Union	3426	3227	4006	3761			Potential Hazard: Instability
Hydrocarbon	Lower Wasatch	4006	3761	4973	4651			Fluid Present: Saltwater
Hydrocarbon	Ohio Creek	4973	4651	5504	5140	>10000	Produced Water Sample	Wells API# 05077087650000 Buzzard Creek 22-3 Potential Hazard: Loss circulation; Fluid Present: Saltwater
Hydrocarbon	Williams Fork	5504	5140	6515	6119	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Top of Gas	6515	6119	7318	6922	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Cameo	7318	6922	8046	7650	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Base Cameo	8046	7650	8065	7669	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Rollins	8065	7669	8265	7869	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L

OPERATOR COMMENTS AND SUBMITTAL

Comments

Laramie Energy, LLC is the Surface Owner of the BCU 14L well pad location.
Well BCU FED 0993-14-07W is not located in a mapped HPH.
Coordinates: 39.275880; -107.742990
The Approved Federal APD for the BCU FED 0993-14-07W is attached to the Form 2.

The re-filed Form 2 was prepared in compliance with current COGCC rules and regulations. Laramie marginally adjusted the BHLs in order to fully develop the minerals while being in compliance with the COGCC Piceance Basin-wide spacing order. The refile uses a previously assigned API numbers as directed by the COGCC.

The BCU 14L Well Pad (BCU 14L)(COGCC Location 391336) was previously permitted as an Oil and Gas Location but was never constructed. The BCU 14L was originally permitted in 2010 by Delta Petroleum Corporation (Operator # 16800). Delta had originally intended to drill 32 natural gas wells. Laramie acquired Delta Petroleum Corporation in 2012 and in May 2013, the Form 2A and Form 2s expired. Laramie re-permitted the BCU 14L well pad through the OGDG process. The BCU 14L was approved at Hearing on May 17, 2023. (OGDP # 483861, ORDER NO. 583-1).

After additional geologic and reservoir analysis, Laramie has determined in order to fully develop the application lands 10 directional wells will be necessary instead of the original 32 wells proposed by Delta Petroleum Corporation. Laramie has submitted refiles Form 2s for the 10 wells.

This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name 2022 BCU 14L OGDG OGDG ID#: 483861
Location ID: 391336

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: 5/24/2023 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: 6/23/2023

Expiration Date: 05/16/2026

API NUMBER

05 077 10610 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.

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	Operator will log two (2) wells with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the two stratigraphically deepest wells on each side of the pad
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Construction	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).
Drilling/Completion Operations	1.Operator shall comply with the most current revision of the Northwest Notification Policy. 2.Operator shall comply with the Notice to Operators Drilling Wells in the Buzzard, Mamm Creek, and Rulison fields, Garfield County and Mesa County – Procedures and Submittal Requirements for Compliance with COGCC Order Nos. 1-107, 139-56, 191-22, and 369-2 (July 8, 2010).
4 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>
2597966	DEVIATED DRILLING PLAN
403258906	FORM 2 SUBMITTED
403315387	WELL LOCATION PLAT
403315388	DEVIATED DRILLING PLAN
403315394	DIRECTIONAL DATA
403321107	OffsetWellEvaluations Data
403411172	LEGAL/LEASE DESCRIPTION
403411181	LEASE MAP
403412444	FED. DRILLING PERMIT
403420801	OffsetWellEvaluations Data
403443846	OFFSET WELL EVALUATION

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	06/22/2023
Permit	Passed Permitting review	06/15/2023
Engineer	<p>Well is located within Piceance BHMA Area and Wasatch G Coverage Area: Casing table provides details on cement coverage above the Wasatch G.</p> <p>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 hydrogeological information was used to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 400 feet.</p> <p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.</p> <p>Uploaded with updated offset well evaluation</p> <p>Operator shall provide stage cement or increase cement coverage for production casing 4 1/2" First String to provide coverage from 200' below the Fort Union top (also known locally by operators as the Atwell Gulch Member of the Wasatch Formation) to 200' above the Wasatch G Upper Interval (also known locally by operators as the Molina Member of the Wasatch Formation). These formations are 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). Isolation is required for offset Wasatch G Sand production or UIC injection. Verify production casing cement coverage with a cement bond log.</p> <p>Changed First String casing top from 1800 ft to 0 ft.</p>	06/06/2023
Engineer	<p>the drilling plan report attachment is for a different well. Emailed operator on 6/1/23</p> <p>Uploaded well plan report to APD</p>	06/01/2023
OGLA	The Commission approved OGDG #483861 on May 17, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	05/25/2023

Total: 5 comment(s)