



Base of Productive Zone (BPZ)

Sec: 14 Twp: 9S Rng: 93W Footage at BPZ: 1167 FNL 1053 FWL
Measured Depth of BPZ: 8702 True Vertical Depth of BPZ: 7867 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 14 Twp: 9S Rng: 93W Footage at BHL: 1167 FNL 1053 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? [X] Yes [ ] No

[X] 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: [X] Fee [ ] State [ ] Federal [ ] Indian

Mineral Owner beneath this Well's Oil and Gas Location: [X] 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):

- [X] 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

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

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1112 Feet  
Building Unit: 1434 Feet  
Public Road: 1099 Feet  
Above Ground Utility: 1099 Feet  
Railroad: 5280 Feet  
Property Line: 632 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: 1053 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: 575 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: 8702 Feet

TVD at Proposed Total Measured Depth 7867 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

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	1800	8702	1178	8702	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	2913	2637			N/A
Hydrocarbon	Wasatch 'G' Sand	2913	2637	3629	3225	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	3629	3225	4280	3759			Potential Hazard: Instability
Hydrocarbon	Lower Wasatch	4280	3759	5364	4649			Fluid Present: Saltwater
Hydrocarbon	Ohio Creek	5364	4649	5940	5138	>10000	Produced Water Sample	Wells API# 05077087650000 Buzzard Creek 22-3 Potential Hazard: Loss circulation; Fluid Present: Saltwater
Hydrocarbon	Williams Fork	5940	5138	6951	6117	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Top of Gas	6951	6117	7754	6920	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Cameo	7754	6920	8482	7648	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Base Cameo	8482	7648	8501	7667	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000 Water TDS: 40,000 mg/L
Hydrocarbon	Rollins	8501	7667	8702	7867	>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 0993-14-04W is not located in a mapped HPH. BHL Coordinates: 39.272682348; -107.744895220

This application is in a Comprehensive Area Plan No CAP #: \_\_\_\_\_  
 Oil and Gas Development Plan Name 2022 BCU 14L OGDP OGDP 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-

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: \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_

<b>API NUMBER</b>
05 077 10026 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.

<b>COA Type</b>	<b>Description</b>
0 COA	

**Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</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)

**Attachment List**

<b>Att Doc Num</b>	<b>Name</b>
403319270	WELL LOCATION PLAT
403319277	DEVIATED DRILLING PLAN
403319278	DEVIATED DRILLING PLAN
403319279	DIRECTIONAL DATA
403321124	OffsetWellEvaluations Data
403412228	MINERAL LEASE MAP

Total Attach: 6 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

