

FORM
2

Rev
10/24

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

404172446

(SUBMITTED)

Date Received:

05/27/2025

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: CCR Fed Well Number: 0994-11-A3-HN1

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): _____

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: NWNE Sec: 23 Twp: 9S Rng: 94W Meridian: 6

Footage at Surface: 395 Feet FNL 1980 Feet FEL

Latitude: 39.268132 Longitude: -107.847692

GPS Data: GPS Quality Value: 0.9 Type of GPS Quality Value: PDOP Date of Measurement: 06/06/2024

Ground Elevation: 7142

Field Name: BRUSH CREEK Field Number: 7562

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: 23 Twp: 9S Rng: 94W Footage at TPZ: 513 FNL 2393 FWL

Measured Depth of TPZ: 5681 True Vertical Depth of TPZ: 5646 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 11 Twp: 9S Rng: 94W Footage at BPZ: 621 FNL 1499 FWL
Measured Depth of BPZ: 21460 True Vertical Depth of BPZ: 11326 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 11 Twp: 9S Rng: 94W Footage at BHL: 621 FNL 1499 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 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: 09/27/2024

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. The CCR 0994-23-02 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 and Oil and Gas Development Plan to the Commission. The notification included details regarding proposed operations at the CCR 0994-23-02. The notice letter was sent on August 14, 2024, to Mesa County pursuant to ECMC Rule 302.e. The letter was received by Mesa County on August 19, 2024. 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 August 29, 2024. The Land Development Application Public Notice sign for the application was posted at the entrance of the proposed access road on 64 3/10 Road (Mesa County Road) on September 6, 2024. The Mesa County Community Development Department issued the Oil and Gas Sit Location Approval Document (PRO2024-0243) on September 27, 2024. Representatives from Mesa County's Community Development Department were invited to the Pre-Application Onsite Meeting on July 10, 2024, but declined the invitation.

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 attached Lease Map. The proposed drilling and spacing unit contains federal minerals. As such, Laramie or its successor operator agrees to submit a Communitization Agreement to the BLM at least 30 days before the anticipated date of first production (as defined in the ECMC Rules) from the initial well drilled within the drilling and spacing unit. An approximate 1,446-acre drilling and spacing unit was approved at hearing on May 21, 2025 ECMC Docket No. 241000238. Laramie is awaiting the signed orders.

Total Acres in Described Lease: 1446 Described Mineral Lease is: Fee State Federal Indian
 Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1526 Feet
 Building Unit: 2069 Feet
 Public Road: 1861 Feet
 Above Ground Utility: 1729 Feet
 Railroad: 5280 Feet
 Property Line: 376 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.)
MANCOS	MNCS		1446	
NIOBRARA	NBRR		1446	

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? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 626 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: 2528 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

An approximate 1,446-acre drilling and spacing unit is pending in ECMC Docket No. 241000238, scheduled for hearing on May 21, 2025.

DRILLING PROGRAM

Proposed Total Measured Depth: 21460 Feet

TVD at Proposed Total Measured Depth 11326 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: 679 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? Yes

Will oil based drilling fluids be used? Yes

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

Beneficial reuse or land application plan submitted? No

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	30	20	SA53B	52.7	0	110		110	0
SURF	16	13+3/8	J55	53.5	0	1800	689	1800	0
1ST	11	8+5/8	P110	32	0	8290	1144	8290	1800
2ND	7+7/8	5+1/2	P110HP	23	0	21460	545	21460	6790

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	Water well domestic- stock & irrigation
Confining Layer	Wasatch	600	600	2345	2341			
Hydrocarbon	Wasatch 'G' Sand	2345	2341	4261	4239	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	Ohio Creek	4261	4239	4388	4365	>10000	Produced Water Sample	Well API# 05077087650000 Buzzard Creek 22-3 Potential Hazard: Loss circulation; Fluid Present: Saltwater
Hydrocarbon	Williams Fork	4388	4365	5681	5646	>10000	Produced Water Sample	Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API# 05077093410000 Water TDS: 40,000 mg/L
Hydrocarbon	Top of Gas	5681	5646	6664	6620	>10000	Produced Water Sample	Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API# 05077093410000 Water TDS: 40,000 mg/L
Hydrocarbon	Cameo	6664	6620	7074	7026	>10000	Produced Water Sample	Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API# 05077093410000 Water TDS: 40,000 mg/L
Hydrocarbon	Rollins	7074	7026	7512	7460	>10000	Produced Water Sample	Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API# 05077093410000 Water TDS: 40,000 mg/L
Hydrocarbon	Cozzette	7512	7460	7682	7628	>10000	Produced Water Sample	Sup & Shep 0993-25-16W. API# 05077105790000 McDaniel 2-1 API# 05077093410000 Water TDS: 40,000 mg/L
Hydrocarbon	Corcoran	7682	7628	8085	8028	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Upper Mancos	8085	8028	8475	8414	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Buck Tongue	8475	8414	9145	9078	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Castlegate	9145	9078	9348	9279	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Blue Gate	9348	9279	9723	9650	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Prairie Canyon	9723	9650	10498	10415	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure

Hydrocarbon	Kick Off Point	10498	10415	10700	10614	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Upper Niobrara	10700	10614	10960	10835	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Tow Creek	10960	10835	11490	11055	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure
Hydrocarbon	Landing	11490	11055	21460	11326	>10000	Produced Water Sample	Bruton 30-10B API# 05077101020000 Potential Hazard: High Pressure

OPERATOR COMMENTS AND SUBMITTAL

Comments The well CCR Fed 0994-11-A3-HN1 is not located in a mapped HPH.
 BHL Coordinates : Latitude: 39.296733; Longitude: -107.853370
 BHL: NENW Section 11, Township 9 South, Range 94 West, 6 P.M.
 Conductor will be routed in place.
 All existing wells surrounding the CCR Fed 0994-11-A3-HN1 are completed in the Williams Fork (Isles), while the subject well is proposed for the Mancos/Niobrara formations. Anti-Collision Report is attached.
 The BLM has indicated they anticipate approval of the Federal well APD by June 2, 2025.
 Laramie received informed consent from all RBU owners and tenants within 2,300 feet.
 2024 CCR 0994-23-02 OGD (OGDP # 489563) was approved at hearing on May 21, 2025.

This application is in a Comprehensive Area Plan No CAP #: _____
 Oil and Gas Development Plan Name 2024 CCR 0994-23-02 OGDP ID#: 489563
 Location ID: 490270
 I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.
 Signed: _____ Print Name: Lori Muhr
 Title: Regulatory Analyst Date: 5/27/2025 Email: LMuhr@Laramie-Energy.com

Based on the information provided herein, this Application for Permit-to-Drill complies with ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved: _____ Director of ECMC Date: _____
 Expiration Date: _____

API NUMBER
05

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>
0 COA	

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>
404178117	OffsetWellEvaluations Data
404191277	SURFACE AGRMT/SURETY
404191280	MINERAL LEASE MAP
404193924	WELL LOCATION PLAT
404194131	WELL LOCATION PLAT
404217772	OTHER
404217824	DIRECTIONAL DATA

Total Attach: 7 Files

General Comments

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

Total: 0 comment(s)