

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL	OIL <input type="checkbox"/>	GAS <input checked="" type="checkbox"/>	COALBED <input type="checkbox"/>	OTHER <u>Unplanned</u>	Refiling <input type="checkbox"/>
ZONE TYPE	SINGLE ZONE <input checked="" type="checkbox"/>	MULTIPLE ZONES <input type="checkbox"/>	COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input checked="" type="checkbox"/>	Date Received: 04/03/2018

Well Name: Nichols Well Number: 0994-24-16W

Name of Operator: LARAMIE ENERGY LLC COGCC Operator Number: 10433

Address: 1401 SEVENTEENTH STREET #1400

City: DENVER State: CO Zip: 80202

Contact Name: Joan Proulx Phone: (970)263-3641 Fax: ()

Email: jproulx@laramie-energy.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20120081

WELL LOCATION INFORMATION

QtrQtr: SENW Sec: 24 Twp: 9S Rng: 94W Meridian: 6

Latitude: 39.263308 Longitude: -107.830872

Footage at Surface:	<u>2286</u>	Feet	FNL/FSL	<u>2784</u>	Feet	FEL/FWL
			FNL			FWL

Field Name: BRUSH CREEK Field Number: 7562

Ground Elevation: 7212 County: MESA

GPS Data:
Date of Measurement: 08/30/2016 PDOP Reading: 1.7 Instrument Operator's Name: Cody Rich

If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone:	FNL/FSL	FEL/FWL	Bottom Hole:	FNL/FSL	FEL/FWL
<u>1396</u>	FSL	<u>1549</u>	<u>1396</u>	FSL	<u>1549</u>
		FWL			FWL

Sec: 24 Twp: 9S Rng: 94W Sec: 24 Twp: 9S Rng: 94W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) is committed to an Oil and Gas Lease.
 has signed the Oil and Gas Lease.
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Fee Minerals
Mesa County, Colorado
Twn. 9S Rng 94W 6th PM
Sec 24: N2, SW, N2SE

Total Acres in Described Lease: 560 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1317 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2577 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 789 Feet

Above Ground Utility: 862 Feet

Railroad: 5280 Feet

Property Line: 954 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 242 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1396 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

These wells are inside COGCC Order 429-16. As per the Order Condition No. 5, Laramie Energy, LLC, will submit a CA to the BLM at least 90 days before the anticipated date of first production (as defined in COGCC Rules) from the initial well completed.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
MESAVERDE	MVRD	429-16	640	Sec 24: All

DRILLING PROGRAM

Proposed Total Measured Depth: 7716 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 Operations Plan)

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

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

Due to character limit, see submittal comments for Drilling Waste Management

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	112	0	90	100	90	0
SURF	11	8+5/8	24	0	1557	277	1557	0
1ST	7+7/8	4+1/2	11.6	0	7716	1235	7716	1030

Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

Rule 318.c. Exception Location from Rule or Spacing Order Number _____

Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

Disposal Description: (Drilling Waste Management)
Laramie plans to drill the wells within this project boundary with a dewatering system with no need for a reserve pit. Drilling fluids are recycled and re-used with cuttings being de-watered and captured in a catch pan, stacked in a cuttings management area and allowed to dry. Once the cuttings are dry and satisfy the COGCC for Rule 910 analytics, the cuttings will be stacked along the cut slope then buried and covered with a minimum of 3 feet of cover. This operation will occur after the completion of all the wells.

- Drilled to planned TD in Rollins formation at 7716' MD / 7327' TVD
- Attempted to run production casing and could not get past 2581' MD
- Ran in with directional tools to cleanout obstruction and could not orient into original hole and unintentionally sidetracked at 2533'
- Currently drilling ahead at 3110' attempting to enter into original hole.
- Original hole is either collapsed or a ledge was created from casing run, causing the sidetrack.

Field: Brush Creek

Surface Casing: 8-5/8" 28# J-55 set @ 1557' MD / 1494' TVD

Surface Cement: Cemented to surface with 32bbbls of good cement to surface

Production TD: 7716' MD / 7327' TVD

Sidetrack Depth: 2533' MD / 2,382' TVD

Prog G Sand: 2469' MD / 2334' TVD

Prog Williams Fork: 4404' MD / 4084' TVD

Prog TOG: 5892' MD / 5484' TVD

Verbal approval to sidetrack was given by Craig Burger on March 29, 2018.

This well was plugged and abandoned on March 30, 2018 (see Form 6 #401593414, 401593435).

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 450760

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: Joan Proulx

Title: Regulatory Analyst Date: 4/3/2018 Email: jproulx@laramie-energy.com

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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 4/5/2018

Expiration Date: 04/04/2020

API NUMBER

05 077 10384 01

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.

COA Type

Description

	1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy.
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Best Management Practices

No BMP/COA Type

Description

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Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf

Notice Concerning Operating Requirements for Wildlife Protection.

http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num

Name

401591150	FORM 2 SUBMITTED
401591203	CORRESPONDENCE
401595113	WELLBORE DIAGRAM
401595114	WELLBORE DIAGRAM
401595540	DEVIATED DRILLING PLAN
401595541	DIRECTIONAL DATA

Total Attach: 6 Files

General Comments

User Group

Comment

Comment Date

Permit	Removed 317.p BMP and notified operator. Final review complete.	04/04/2018
Engineer	Changed API suffix to -01, formation to Mesaverde and conductor setting depth to 90' to match wellbore diagram. Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 300 feet.	04/04/2018
Permit	Preliminary review complete.	04/03/2018
Permit	Form passes completeness.	04/03/2018
Permit	Returned to draft for directional information; distance to lease line and nearest well in the same formation, and to check casing information. Operator notified.	04/03/2018

Total: 5 comment(s)