

FORM  
2  
Rev  
08/16

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:  
401878490

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

TYPE OF WELL    OIL     GAS     COALBED     OTHER Unplanned  
ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refilling   
Sidetrack

Date Received:  
12/18/2018

Well Name: Sup & Shep      Well Number: 0993-25-16W  
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: NESW      Sec: 25      Twp: 9S      Rng: 93W      Meridian: 6  
Latitude: 39.244824      Longitude: -107.723349

Footage at Surface: 2402 Feet      FNL/FSL      FSL      1775 Feet      FEL/FWL      FWL

Field Name: BUZZARD CREEK      Field Number: 9500  
Ground Elevation: 8078      County: MESA

GPS Data:  
Date of Measurement: 03/05/2018      PDOP Reading: 1.5      Instrument Operator's Name: T Sherrill

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  
864      FSL      1474      FWL      864      FSL      1474      FWL  
Sec: 25      Twp: 9S      Rng: 93W      Sec: 25      Twp: 9S      Rng: 93W

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: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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.)

See attached mineral lease description

Total Acres in Described Lease: 1574 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: 349 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 820 Feet

Building Unit: 1104 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 546 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: 03/26/2018

## 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: 258 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 864 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

CA COC 076718

## 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	369-12	640	Section 25: All

## DRILLING PROGRAM

Proposed Total Measured Depth: 8789 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 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:

See attached Cuttings Management Plan

Beneficial reuse or land application plan submitted? No

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	36.9	0	90	100	90	0
SURF	11	8+5/8	24	0	1556	259	1556	0
1ST	7+7/8	4+1/2	11.6	0	8789	1423	8789	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

a. Description of the situation that has resulted in an UNPLANNED sidetrack: While pumping production cement job with casing on bottom, string pressure up as bottom plug landed on float collar. Circulation was unable to be established. Cement was drilled out to the production casing shoe with the drilling rig and perforations were shot at 8568' in attempt to break circulation. This was not successful so casing was cut at 5700' (depth of free pipe) and pulled. Abandonment plug will be set right above fish top in the Williams Fork/Ohio Creek formation.

b. Total measured depth reached in the wellbore being plugged back: 8706'

c. Casing set – size(s) and measured depth(s): Conductor 16" set at 90'; surface 8 5/8" set at 1556'

d. Description of fish in the hole (if any) – including top and bottom measured depths: 4-1/2" 11.6# P-110IC casing from 5700'-8696'

e. Description of proposed plugs: setting measured depths, heights, and cement volumes: Plug #1 5500'-4900', 600' height, 228 sacks; Plug #2 3000'-2400', 600' height, 264 sacks

f. Type of cement to be used for all plugs, including slurry weight (ppg) and yield (cf/sk): Plug #1 Neat G cement, 15.8 ppg, 1/15 cf/sk; Plug #2 PlugCem, 17 ppg, 0.99 cf/sk

g. Measured depth of proposed sidetrack kick-off point: 3000'-2400'

h. Proposed objective formation(s) for sidetrack hole – new or same as the wellbore being abandoned: Same (WFILS)

i. BHL Target for sidetrack hole – new or same as the wellbore being abandoned (NOTE: a change in the BHL must be reviewed and approved by COGCC Permitting prior to completing the sidetrack. Drilling a sidetrack to an unapproved BHL could result in an NOAV, plugging the well, or both): New. 864 FSL, 1474 FWL, 39.240668, -107.724354

j. Verbal/email approval to plug back and sidetrack – indicate the name of the COGCC Engineer who granted verbal/email approval, as described in Step 1.b., and the date approval granted: Craig Burger granted approval on 12/17/2018.

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

Location ID: 334440

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: 12/18/2018 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: 12/21/2018

Expiration Date: 12/20/2020

<b>API NUMBER</b> 05 077 10579 01
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## 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>
	<p>1) Operator shall comply with the most current revision of the Northwest Colorado Notification Policy.</p> <p>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).</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 Lower Wasatch (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> <p>4) The Operator shall monitor the bradenhead pressure of the proposed well and all offset wells under Operator's control which penetrate the stimulated formation and have a treated interval separation of 300 feet or less. Monitoring shall occur from 24 hours prior to stimulation and shall continue until 24 hours after stimulation is complete. Recording shall be at a frequency of at least once per 24 hours with the capability of recording the maximum pressure observed during each 24 hour period. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>

## Applicable Policies and Notices to Operators

NW Colorado Notification Policy. <a href="http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf">http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf</a>
Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field). <a href="http://cogcc.state.co.us/documents/reg/Policies/NTO_07082010.pdf">http://cogcc.state.co.us/documents/reg/Policies/NTO_07082010.pdf</a>
Notice Concerning Operating Requirements for Wildlife Protection. <a href="http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf">http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf</a>

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401878490	FORM 2 SUBMITTED
401878526	WELLBORE DIAGRAM
401878535	WELL LOCATION PLAT
401878541	CORRESPONDENCE
401878590	OTHER
401878620	WELLBORE DIAGRAM
401878640	DIRECTIONAL DATA
401878646	DEVIATED DRILLING PLAN

Total Attach: 9 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Final Review Completed.	12/21/2018
Engineer	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 600 feet.  Offset Well Evaluation: Offset wellbores within 1500 feet of the wells planned on this pad meet standards. No mitigation required	12/21/2018
Permit	Permitting Review Complete.	12/21/2018
Permit	LGD and public comment waived for this application for an unplanned sidetrack with drilling in progress.	12/21/2018
Permit	Passed completeness.	12/21/2018

Total: 5 comment(s)