

FORM
2

Rev
08/13

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:

400889345

Date Received:

08/31/2015

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER _____

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: LAST WOMAN STANDING

Well Number: 943-15-24-D

Name of Operator: BLACK RAVEN ENERGY INC

COGCC Operator Number: 10203

Address: 165 S UNION BLVD SUITE 410

City: LAKEWOOD

State: CO

Zip: 80228

Contact Name: DAVID KUNOVIC

Phone: (303)308-1330

Fax: (303)308-1590

Email: dkunovic@enerjexresources.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20060159

WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 15 Twp: 9N Rng: 43W Meridian: 6

Latitude: 40.751000

Longitude: -102.126540

Footage at Surface: 600 feet FNL/FSL FSL 1575 feet FEL/FWL FWL

Field Name: AMHERST

Field Number: 2480

Ground Elevation: 3642

County: SEDGWICK

GPS Data:

Date of Measurement: 08/24/2015 PDOP Reading: 1.8 Instrument Operator's Name: Ryan Dickinson

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

Sec: Twp: Rng: Sec: Twp: Rng:

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.)

N/2, SW/4, W/2SE/4, SECTION 15, T9N, R43W

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: 600 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2567 Feet

Building Unit: 2567 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 600 Feet

Above Ground Utility: 568 Feet

Railroad: 5280 Feet

Property Line: 600 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 Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 5280 Feet

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

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

SPACING & FORMATIONS COMMENTS

This wildcat well will test potential hydrocarbon bearing zones in the Permian and Pennsylvanian aged rocks. The well spacing unit will be 40 acres. There are no existing specific spacing orders.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
CRETACEOUS	CRTC			
PENNSYLVANIAN	PENN			
PERMIAN	PRMN			

DRILLING PROGRAM

Proposed Total Measured Depth: 6000 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 9325 Feet (Including plugged wells)

Will a closed-loop drilling system be used? No

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? Yes

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: ONSITE Drilling Fluids Disposal Methods: Evaporation

Cuttings Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Plan to use metal mud tanks. Plan to have a drilling reserve pit. Will back fill mud pit when dry.

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
SURF	12+1/4	8+5/8	24	0	600	375	600	0
1ST	7+7/8	5+1/2	17	0	5900	250	5900	2000

☒ 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: This wildcat well will evaluate the hydrocarbon potential in Permian and Pennsylvanian aged rocks. There are no wells producing from the Permian or Pennsylvanian rocks in the area (nearest well producing from Paleozoic rocks is approximately 25 miles away). No Conductor Casing will be used. If this well is successful a tank battery will be built approximately 500 ft. from the drillsite near the County Road in order to provide easy access for crude oil transport.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? _____ Yes

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

Signed: _____ Print Name: DAVID KUNOVIC

Title: EVP Exploration Date: 8/31/2015 Email: dkunovic@enerjexresources.co

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: 10/2/2015

Expiration Date: 10/01/2017

API NUMBER

05 115 06111 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.

COA Type

Description

- 1) Provide 48 hr notice prior to spud via electronic Form 42.
- 2) Set at least 600' of surface casing. Cement to surface. Increased surface casing due to WW depths and top of shale on logs.
- 3) If completed, provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 4) If dry hole, set 40 sks cement 50' above Dakota, 40 sks cement 50' above Niobrara, 50 sks cement 1/2 out, 1/2 in surface casing, 15 sks cement 50' to 4', cut 4' below GL, weld on plate, 5 sks cement in rat hole & 5 sks cement in mouse hole.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Storm Water/Erosion Control	During drilling operations surface roughening will be used on any lowside of drillsite to reduce speed of runoff, increase infiltration, reduce erosion, trap sediment and prepare soil for reseeding.
2	Drilling/Completion Operations	Open-hole Resistivity Log with Gamma Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing, or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached

Total: 2 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1897991	SURFACE CASING CHECK
400889345	FORM 2 SUBMITTED
400892709	WELL LOCATION PLAT

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	10/1/2015 11:29:27 AM
Permit	Operator revised distance to nearest Building Unit. Removed distance from completed portion of wellbore to nearest unit boundary, as no unit exists. Removed attachments that are duplicated on Form 2A attachments.	9/29/2015 2:31:34 PM
Permit	Pass completeness	9/10/2015 9:53:25 AM
Permit	Returned to draft Please check 2nd box "is committed to an oil and gas lease" on the surface & minerals tab Does not meet 317.p requirements. Please add BMP from 317.p guidance to operator BMP/COA tab	9/3/2015 11:19:54 AM

Total: 4 comment(s)