

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:

401554740

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:

02/27/2018

TYPE OF WELL OIL GAS COALBED OTHER _____

Refiling

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: Jaques Well Number: 10
Name of Operator: CATAMOUNT ENERGY PARTNERS LLC COGCC Operator Number: 10464
Address: 1801 BROADWAY #1000
City: DENVER State: CO Zip: 80202
Contact Name: Nolan Redmond Phone: (720)484-2347 Fax: ()
Email: nredmond@catamountep.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160137

WELL LOCATION INFORMATION

QtrQtr: NWSE Sec: 27 Twp: 33N Rng: 8W Meridian: N

Latitude: 37.071680 Longitude: -107.700380

Footage at Surface: 1446 Feet ^{FNL/FSL} FSL 1409 Feet ^{FEL/FWL} FEL

Field Name: IGNACIO BLANCO Field Number: 38300

Ground Elevation: 6728 County: LA PLATA

GPS Data:

Date of Measurement: 01/31/2018 PDOP Reading: 1.6 Instrument Operator's Name: Nelson Ross

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

Footage at Top of Prod Zone: ^{FNL/FSL} 759 ^{FSL} 1947 ^{FEL/FWL} FWL Bottom Hole: ^{FNL/FSL} 660 ^{FEL/FWL} 1665 ^{FWL} FWL
Sec: 27 Twp: 33N Rng: 8W Sec: 27 Twp: 33N Rng: 8W

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: 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.)

W/2NW/4, SW/4SW/4, S/2NW/4SW/4 SEC 26 T33N R8W

S/2SE/4, S/2NE/4SE/4, NW/4SE/4, E/2SW/4, E/2NW/4, NW/4NW/4, E/2NE/4, SW/4NE/4 SEC 27 T33N Excepting 5 acres in the NW/4SE/4 of SEC. 27 commencing at NE corner of said forty, then South 660 feet, thence west 330 feet, thence North 660 feet, thence East 330 feet to beginning.

Total Acres in Described Lease: 595 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: 345 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 322 Feet
 Building Unit: 322 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 5280 Feet
 Above Ground Utility: 223 Feet
 Railroad: 5280 Feet
 Property Line: 2008 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: 12/29/2017

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: 1050 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 660 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
FRUITLAND COAL	FRLDC	112-278	320	W/2

DRILLING PROGRAM

Proposed Total Measured Depth: 4181 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: 480 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 608

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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
SURF	12+1/4	8+5/8	24	0	370	225	370	0
1ST	7+7/8	5+1/2	17	0	4181	570	4181	0

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 There is currently a utility line running adjacent to the location. Per a meeting with the La Plata Electric Association on 3/12/2018, the line will be relocated further to the east and will be greater than 200' from the proposed new well. The new distance to the utility line will be updated as soon as possible prior to final approval.

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

Location ID: 326237

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: Nolan Redmond

Title: Geo/Eng Tech Date: 2/27/2018 Email: nredmond@catamountep.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: 4/23/2018

Expiration Date: 04/22/2020

API NUMBER

05 067 10020 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.

<u>COA Type</u>	<u>Description</u>
	<p>1) Operator shall provide cement coverage from the production casing shoe (5+1/2" FIRST STRING) to a minimum of 200' above the surface casing shoe to provide isolation of all oil, gas, and water-bearing sandstone and coalbed formations that are not otherwise covered by surface casing. Verify production casing cement coverage with a cement bond log.</p> <p>2) The two closest water wells within 1/4 mile radius of the proposed lateral shall be sampled & analyzed (Cause 112 Orders 156-157 and rule 608) if not done previously.</p> <p>3) If borehole problems occur while drilling and an unplanned sidetrack is required, the following shall apply: a.) Before proceeding, contact the COGCC Engineer for verbal approval and provide an explanation as to what happened to the original borehole and what the plan is for the sidetrack. Contact Information: Craig Burger – Area Engineer 970-625-2497 ext 2 office 970-319-4194 cell Craig.burger@state.co.us b.) Adhere to the instructions provided in the “UNPLANNED Sidetrack While Drilling: Approval and Reporting Process – Southwestern Colorado San Juan Basing ONLY” that can be found on the COGCC website at: Go to COGCC Web Site for more details if necessary Regulation, Forms, Form 2-Permit to Drill, Instructions</p> <p>4) Contact COGCC Engineer – Craig Burger when encountering kicks requiring a mud weight increase of 0.5 ppg to control the kick, unexpected water flows, and unexpected Hydrogen Sulfide.</p>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	<p>Rule 317.p: One of the first wells drilled on the pad will be logged with open-hole resistivity log with gamma-ray, from TD into the surface casing. All wells on the pad will have a cement bond log (CBL) 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 “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.</p>

Total: 1 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401554740	FORM 2 SUBMITTED
401554878	DIRECTIONAL DATA

401554902	DEVIATED DRILLING PLAN
401554904	SURFACE AGRMT/SURETY
401554905	WELL LOCATION PLAT
401557251	P&A ASSESSMENT
401617648	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	04/16/2018
OGLA	04/09/2018 - the new distance to the utility line was updated from well from 133' to 223' based on information from the La Plata Electric Association.	04/09/2018
Engineer	<p>Alluvial Fresh Water Reservoirs The proposed gas well is located within an area where fresh water aquifers are developed in an alluvial deposit of gravel and sandstone commonly found in river, stream, and ephemeral creek valleys. Water wells in alluvium can vary in depth from 10' to 200'. These aquifers are commonly identified as the San Jose and Nacimiento formations.</p> <p>Bedrock Aquifers The proposed gas well is located within an area where unconfined fresh water aquifers are developed in bedrock formations consisting mainly of shale with intermittent sandstone stringers with limited areal extent or having pockets of isolated water reservoirs. Water wells can vary in depth from 100' to 650'. These aquifers are commonly identified as the Animas formation.</p> <p>A one mile radius of investigation of all offsetting fresh water wells has determined that the deepest surface casing required to protect the aquifers is a depth of 307' (includes a 50' margin of additional protection corrected for elevation differences). The operator proposed an acceptable surface casing depth of 370'. The surface casing on the proposed well will be cemented from total depth to surface. The production casing on the gas well is planned to be cemented from total depth to surface. This will serve two purposes (1) it will isolate and confine all hydrocarbon and brackish waters to their respective zones and (2) it will provide double protection for the fresh water aquifers which includes two concentric steel casing strings and two concentric external cement sheaths extending from total depth to surface. There are no logs run shallow enough in offset gas wells within a 1500' radius to assist in determining the deepest fresh water aquifers.</p> <p>Offset Well Evaluation: Evaluated offset PA well JACQUES #2 API#067-05268 drilled to a TD of 8263'. First string set at 3686' with 500 sacks cement. 100' cement plug at 4270' to 4370' above top of fish. CIBP with 100' cement at 3500'. Meets standards for offset Fruitland Coal stimulation. Fruitland Coal estimated from 2962' to 3144' covered by first string. Operator attached an assessment of the well labeled P&A Assessment showing producing intervals are greater than 1500 from the Jacques#2. Offset wellbores within 1500 feet of the wellbores planned on this pad meet standards for Fruitland Coal development.</p>	04/05/2018
Permit	Passed Completeness.	03/15/2018
Permit	Returned to draft for: <ul style="list-style-type: none"> - missing attachment Variance request for utility - Missing attachment Variance waivers for utility - "Cultural Setbacks" tab: Bufferzone box should be checked - "Related Forms" tab is blank 	03/09/2018

Total: 5 comment(s)