

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:

400901328

## APPLICATION FOR PERMIT TO:

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

Date Received:

09/22/2015

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_Refiling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Janssen

Well Number: 5

Name of Operator: EXTRACTION OIL &amp; GAS LLC

COGCC Operator Number: 10459

Address: 370 17TH STREET SUITE 5300

City: DENVER State: CO Zip: 80202

Contact Name: Jennifer Grosshans

Phone: (303)928-7128

Fax: (303)218-5678

Email: regulatory@petro-fs.com

## RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130028

## WELL LOCATION INFORMATION

QtrQtr: SENW Sec: 8 Twp: 6N Rng: 65W Meridian: 6

Latitude: 40.503089

Longitude: -104.688271

Footage at Surface: 2231 feet FNL/FSL FNL 2397 feet FEL/FWL FWL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4778

County: WELD

GPS Data:

Date of Measurement: 08/28/2014 PDOP Reading: 1.5 Instrument Operator's Name: Ben Hardenbergh

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.
 Footage at Top of Prod Zone: FNL/FSL FNL 2187 FWL 925 FNL 2186 FEL  
 Sec: 8 Twp: 6N Rng: 65W Sec: 7 Twp: 6N Rng: 65W

## LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe 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.)

Township 6 North, Range 65 West of the 6th PM  
Section 8: Lease is described in metes and bounds.

Please see attached Mineral Lease Map.

Total Acres in Described Lease: 155 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: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2084 Feet  
Building Unit: 2324 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 2219 Feet  
Above Ground Utility: 225 Feet  
Railroad: 4193 Feet  
Property Line: 232 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: 740 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 462 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

Nearest wellbore permitted or completed in the same formation is the Janssen 2.

Codell -Proposed Spacing Unit is described as:  
T6N, R65W  
Sec 7 - NE4  
Sec 8 - NW4

## OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| CODELL                 | CODL           |                         | 320                           | GWA                                  |

## DRILLING PROGRAM

Proposed Total Measured Depth: 12050 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 265 Feet (Including plugged wells)

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? Yes

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 318A

## 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 |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR   | 24           | 16             | 42    | 0             | 80            | 100       | 80      | 0       |
| SURF        | 12+1/4       | 9+5/8          | 36    | 0             | 1500          | 400       | 1500    | 0       |
| 1ST         | 7+7/8        | 5+1/2          | 20    | 0             | 12050         | 1080      | 12050   | 1500    |

☐ 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

Letter to Director for COGCC Rule 318A.e. Proposed Spacing Unit, attached as Proposed Spacing Unit.

Letter to the Director for COGCC Rules 318A.a. Exception Location for GWA Windows, attached as the Exception Loc Request.

Waiver for COGCC Rule 318A.a. is attached as Exception Loc Waiver.

Nearest permitted or existing wellbore penetrating objective formation is the Hager 1 (API No. 05-123-11767).

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: Jennifer Grosshans

Title: Regulatory Analyst Date: 9/22/2015 Email: regulatory@petro-fs.com

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: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

API NUMBER

05

## 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

|  |  |
|--|--|
|  |  |
|--|--|

## Best Management Practices

### No BMP/COA Type

### Description

|   |                 |  |
|---|-----------------|--|
| 1 | Planning        | Multi-well Pads are located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas and complies with the wishes of the surface owner. |
|   |                 | A meeting with the surface owner will determine the fencing plan.  |
| 2 | Traffic control | Access Roads: The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times. An Access Road Permit will be applied for through Weld County.        |

|    |  |  |
|----|--|--|
| 3  | General Housekeeping                   | <p>Visual Impacts: Equipment, regardless of construction date, which are observable from any public highway shall be painted with uniform, non-contrasting, non-reflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to, but slightly darker than, the surrounding landscape.</p> <p>Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately. Operator shall keep the Surface Use Area as well as any roads or other areas used by Operator safe and in good order, including control of noxious weeds litter and debris.</p> |
| 4  | Storm Water/Erosion Control            | <p>Use water bars, and other measures to prevent erosion and non-source pollution. Implement and maintain BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate gas and water gathering lines whenever feasible, and mitigate any erosion problems that arise due to the construction of any pipeline(s).</p>   |
| 5  | Material Handling and Spill Prevention | <p>Leak Detention Plan: Pumper will visit the location daily and visually inspect all wellheads and fittings for leaks. Additionally, monthly documented SPCCP inspections are conducted pursuant to 40 CFR 112.</p> <p>Control of fire hazards: All material that is considered a fire hazard shall be a minimum of 25' from the wellhead. Electrical equipment shall comply with API IRP 500 and will comply with the current national electrical code.</p> <p>Operator shall comply with state and federal laws, rules and regulations governing the presence of any petroleum products, toxic or hazardous chemicals or wastes on the Subject lands.</p>   |
| 6  | Dust control                           | <p>Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high- wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers may be used.</p>   |
| 7  | Construction                           | <p>Guy line anchors: All guy line anchors shall be brightly marked pursuant to Rule 604.c. (2)Q.</p>   |
| 8  | Emissions mitigation                   | <p>Green Completions - Emission Control System: Test separators and associated flowlines and sand traps shall be installed to accommodate green completions techniques pursuant to COGCC Rules. As soon as there are salable quantities of gas, Operator will tie in with a DPC gas sales lines nearby.</p>  |
| 9  | Odor mitigation                        | <p>Equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.</p> <p>Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.</p>   |
| 10 | Drilling/Completion Operations         | <p>Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.</p> <p>Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5).</p>  |

|    |                                |   |
|----|--------------------------------|---|
| 11 | Drilling/Completion Operations | <p>A closed –loop system will be used for drilling operations.</p> <p>Blowout Prevention Equipment (“BOPE”): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.</p> <p>Lighting: Site lighting shall be directed downward and inward and shielded so as to avoid glare on public roads and Building Units within one thousand (1000) feet where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site.</p> <p>Bradenhead Monitoring: Operator acknowledges and will comply with COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.</p> |
| 12 | Drilling/Completion Operations | <p>One of the first wells drilled on the pad will be logged with openhole Resistivity Log and Gamma Ray Log from the kick-off point 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 horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. 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 shall clearly state “No open-hole logs were run” and shall clearly identify (by API#, well name &amp; number) the well in which openhole logs were run.</p>   |
| 13 | Interim Reclamation            | <p>Operator shall be responsible for segregating the topsoil, backfilling, repacking, reseeding, and recontouring the surface of any disturbed area so as not to interfere with Owner’s operations and shall reclaim such area to be returned to pre-existing conditions as best as possible with control of all weeds.</p>   |
| 14 | Final Reclamation              | <p>Within 90 days subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site. The Operator shall restore the surface of the Land affected by such terminated operations as near as possible to the previous state that existed prior to operations.</p>   |

Total: 14 comment(s)

### **Attachment Check List**

| <b><u>Att Doc Num</u></b> | <b><u>Name</u></b>         |
|---------------------------|----------------------------|
| 400902980                 | OffsetWellEvaluations Data |
| 400903229                 | DIRECTIONAL DATA           |
| 400903244                 | DEVIATED DRILLING PLAN     |
| 400903277                 | EXCEPTION LOC REQUEST      |
| 400903279                 | WELL LOCATION PLAT         |
| 400903280                 | MINERAL LEASE MAP          |
| 400903282                 | PROPOSED SPACING UNIT      |
| 400903283                 | EXCEPTION LOC WAIVERS      |

Total Attach: 8 Files

### **General Comments**

| <u>User Group</u> | <u>Comment</u>  | <u>Comment Date</u>              |
|-------------------|---|----------------------------------|
| Public            | <p>I firmly believe the State of Colorado and the fracking industry have violated our Inalienable Rights, acted in an arbitrary and capricious manner, acted in abuse of discretion, have not offered citizens equal protection, violated the Clean Air Act, Colorado Air Pollution Prevention and Control Act, Oil and Gas Conservation Act, Breach of Fiduciary Duty, have allowed the cause of irreparable harm, threatened our fundamental rights to life, liberty and property.</p> <p>This specific permit warrants further investigation into whether the operator can successfully and fully operate in a manner consistent with the protection of public health safety and welfare.</p> <p>Colorado citizens need to be able to protect themselves, their families, their environment, the values of their homes and exercise their civil rights to safety, but they cannot, and are in fact prohibited by the state and fracking industry from doing so.</p> <p>Also, there is a compendium of health studies that show mining using hydraulic fracturing, is not safe and cannot be conducted in a manner consistent with public health, safety and welfare. See: <a href="http://concernedhealthny.org/compendium/">http://concernedhealthny.org/compendium/</a></p> <p>The associated risks of the fracking industry are too great, and a precautionary principle must be addressed before any operations take place. I recommend that this permit be denied immediately.</p>      | <p>10/4/2015<br/>10:39:47 PM</p> |
| Public            | <p>I firmly believe the State of Colorado and the fracking industry have violated our Inalienable Rights; acted in an arbitrary and capricious manner; acted in abuse of discretion; violated the Clean Air Act, Colorado Air Pollution Prevention and Control Act, Oil and Gas Conservation Act, and Breach of Fiduciary Duty; have allowed the cause of irreparable harm; have not offered citizens equal protection; threatened our fundamental rights to life, liberty and property.</p> <p>This specific permit warrants further investigation into whether the operator can successfully and fully operate in a manner consistent with the protection of public health safety and welfare.</p> <p>Colorado citizens need to be able to protect themselves, their families, their environment, the values of their homes and exercise their civil rights to safety, but they cannot, and are in fact prohibited by the state and fracking industry from doing so.</p> <p>Also, there is a compendium of health studies that show mining using hydraulic fracturing, is not safe and cannot be conducted in a manner consistent with public health, safety, and welfare. See: <a href="http://concernedhealthny.org/compendium/">http://concernedhealthny.org/compendium/</a></p> <p>The associated risks of the fracking industry are too great, and a precautionary principle must be addressed before any operations take place. I recommend that this permit be denied immediately.</p> | <p>10/4/2015<br/>4:48:51 PM</p>  |

|        |   |                         |
|--------|---|-------------------------|
| Public | <p>I firmly believe the State of Colorado and the fracking industry have violated our Inalienable Rights; acted in an arbitrary and capricious manner; acted in abuse of discretion; violated the Clean Air Act, Colorado Air Pollution Prevention and Control Act, Oil and Gas Conservation Act, and Breach of Fiduciary Duty; have allowed the cause of irreparable harm; have not offered citizens equal protection; threatened our fundamental rights to life, liberty and property.</p> <p>This specific permit warrants further investigation into whether the operator can successfully and fully operate in a manner consistent with the protection of public health safety and welfare.</p> <p>Colorado citizens need to be able to protect themselves, their families, their environment, the values of their homes and exercise their civil rights to safety, but they cannot, and are in fact prohibited by the state and fracking industry from doing so.</p> <p>Also, there is a compendium of health studies that show mining using hydraulic fracturing, is not safe and cannot be conducted in a manner consistent with public health, safety, and welfare. See: <a href="http://concernedhealthny.org/compendium/">http://concernedhealthny.org/compendium/</a></p> <p>The associated risks of the fracking industry are too great, and a precautionary principle must be addressed before any operations take place. I recommend that this permit be denied immediately.</p> | 10/4/2015<br>4:48:47 PM |
| Permit | Passed Completeness   | 9/24/2015<br>9:23:25 AM |

Total: 4 comment(s)