

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

TYPE OF WELL    OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____ ZONE TYPE       SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Refiling <input type="checkbox"/> Sidetrack <input type="checkbox"/>
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Date Received:  
06/13/2017

Well Name: Buford      Well Number: 33-4-2L

Name of Operator: CONFLUENCE DJ LLC      COGCC Operator Number: 10518

Address: 1001 17TH STREET #1250

City: DENVER      State: CO      Zip: 80202

Contact Name: Andrea Gross      Phone: (303)942-0506      Fax: (    )

Email: agross@upstreampm.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20160056

**WELL LOCATION INFORMATION**

QtrQtr: SWSW      Sec: 34      Twp: 1N      Rng: 65W      Meridian: 6

Latitude: 40.002660      Longitude: -104.656540

Footage at Surface: <u>770</u> Feet	FNL/FSL	<u>844</u> Feet	FEL/FWL
	FSL		FWL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 5137      County: WELD

GPS Data:  
Date of Measurement: 05/30/2017    PDOP Reading: 1.4    Instrument Operator's Name: Kyle Daley

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

Footage at Top of Prod Zone: <u>470</u> Feet	FNL/FSL	<u>1660</u> Feet	FEL/FWL	Bottom Hole: <u>470</u> Feet	FNL/FSL	<u>1660</u> Feet	FEL/FWL
	FSL		FEL		FNL		FEL

Sec: 33    Twp: 1N    Rng: 65W      Sec: 28    Twp: 1N    Rng: 65W

**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.)

T1N R65W Section 33: All

Total Acres in Described Lease: 640 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: 978 Feet

Building Unit: 1177 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 754 Feet

Above Ground Utility: 1142 Feet

Railroad: 5280 Feet

Property Line: 477 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: 212 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 470 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.)
NIOBRARA	NBRR	407-2173	1280	S. 28 & 33: All

## DRILLING PROGRAM

Proposed Total Measured Depth: 18596 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: 25 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? 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	26	16	43	0	80	400	80	0
SURF	13+1/2	9+5/8	36	0	1500	878	1500	0
1ST	8+3/4	5+1/2	17	0	18596	2533	18596	

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

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation was measured to the proposed Buford 33-4-4L using vertical and aerial separation.

Distance from the proposed wellbore to the nearest existing or proposed wellbore belonging to another operator, including plugged wells was measured to the Jordan 34-9 (API 123-12937). Stimulation setback consent not required. The Exception Location Waiver for Rule 318A.a. and 318A.c. is located in the attached Surface Use Agreement on page 2, section 6.

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

Location ID: 449244

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: Andrea Gross

Title: Permit Agent Date: 6/13/2017 Email: agross@upstreampm.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: 11/24/2017

Expiration Date: 11/23/2019

API NUMBER

05 123 45931 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) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad.</p> <p>2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with cement bond log.</p>
	<p>Bradenhead tests shall be performed according to the following schedule and the Form 17 submitted within 10 days of each test:</p> <p>1) Within 60 days of rig release and prior to stimulation and</p> <p>2) If a delayed completion, 6 months after rig release and prior to stimulation.</p> <p>3) Within 30 days after first production, as reported on Form 5A.</p>
	<p>Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 4). Operator will submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation.</p> <p>Strawder 1 (API 123-10497) Neckien 1 (API 123-10540)</p> <p>Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 3). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>Champlin 365 Amoco Unit A 2 (API 05-123-10181) Jordan 34-9 (API 05-123-12937) Jordan-Loustaunau 34-10 (API 123-14809)</p>

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	<p>Rig with Kelly: The BOP will include a minimum of double ram with blind ram pipe ram, annular preventer or a rotating head. At least one (1) person with training for blowout prevention will be on location during all drilling operations. Rig without Kelly. The BOP will include a minimum of double ram with blind ram and pipe ram. At least one (1) person with training for blowout prevention will be on location during all drilling operations.</p> <p>Confluence will utilize drilling rigs with a minimum of a double ram and annular preventer.</p>
2	Drilling/Completion Operations	<p>One of the first wells drilled on the pad will be logged with open-hole 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 open-hole logs were run.</p>
3	Drilling/Completion Operations	<p>BOPE tests will be run upon initial rig-up and at least once every thirty (30) days during drilling operations. Pressure testing of the casing string and each component of the blowout prevention equipment, including flange connections, will be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing will be conducted and the documented results will be retained by the Confluence for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing will be conducted on a daily basis when practicable. Adequate blowout prevention equipment will be used on all well servicing operations. Adequate blowout prevention equipment will be used on any servicing operations associated with this well. Stabbing valves will be installed in the event of reverse circulation and will be tested prior with low and high pressure fluid. Valves will be pressure tested before each well servicing operation using both low-pressure and high-pressure fluid.</p>
4	Drilling/Completion Operations	<p>Confluence 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 will be given to all offset operators within 150 feet prior to drilling.</p>
5	Drilling/Completion Operations	<p>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>

Total: 5 comment(s)

### Applicable Policies and Notices to Operators

Policy
<p>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></p>
<p>Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.  <a href="http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf">http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf</a></p>

### Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
401305445	FORM 2 SUBMITTED
401305447	WELL LOCATION PLAT
401305448	DEVIATED DRILLING PLAN

401305449	SURFACE AGRMT/SURETY
401306917	DIRECTIONAL DATA
401306921	EXCEPTION LOC REQUEST
401467410	OFFSET WELL EVALUATION

Total Attach: 7 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Open Hole Logging BMP submitted by operator. Surface Use Agreement has waivers for Rule 318A.a & 318A.c. See page 2, Section 6. Added the spacing order. Permitting Review Complete.  Final Review Completed.	11/22/2017
Engineer	Per operator request, changed the surface casing setting depth to 1500' and cement volume to 878 sx.	09/13/2017
Engineer	Per operator request, updated distance to nearest non operated offset wellbore and language regarding measurement.	09/13/2017
Permit	Passed Completeness.	06/22/2017

Total: 4 comment(s)