

**APPLICATION FOR PERMIT TO:**

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

Date Received:

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_      Refiling

ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES       Sidetrack

Well Name: Marcus LD      Well Number: 11-377HN

Name of Operator: GREAT WESTERN OPERATING COMPANY LLC      COGCC Operator Number: 10110

Address: 1801 BROADWAY #500

City: DENVER      State: CO      Zip: 80202

Contact Name: Allison Linz      Phone: (303)398-0355      Fax: ( )

Email: regulatorypermitting@gwogco.com

**RECLAMATION FINANCIAL ASSURANCE**

Plugging and Abandonment Bond Surety ID: 20090080

**WELL LOCATION INFORMATION**

QtrQtr: SESE      Sec: 34      Twp: 1N      Rng: 67W      Meridian: 6

Latitude: 40.003028      Longitude: -104.868583

Footage at Surface: 967 feet      FNL/FSL      FSL      410 feet      FEL/FWL      FEL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 5042.9      County: WELD

GPS Data:

Date of Measurement: 11/14/2014      PDOP Reading: 1.4      Instrument Operator's Name: Jared Christopher

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

460    FNL      1025    FWL      470    FSL      1009    FWL

Sec: 2      Twp: 1S      Rng: 67W      Sec: 11      Twp: 1S      Rng: 67W

**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.)

NE4 and NW4 Section 2 T1S-R67W

Total Acres in Described Lease: 320 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: 710 Feet  
Building Unit: 809 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 395 Feet  
Above Ground Utility: 376 Feet  
Railroad: 5280 Feet  
Property Line: 410 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: 12/11/2014

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 385 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 0 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

Gutherie 11-2 is the nearest penetrating well.  
NEWLANDER H UNIT #1 is ther nearest well completed in the same formation

## 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		640	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 17722 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 15 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 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? 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? 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	13+1/2	9+5/8	36	0	1700	707	1700	0
1ST	8+1/2	5+1/2	17	0	17722	2246	17722	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

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: \_\_\_\_\_

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: Allison Linz \_\_\_\_\_

Title: Regulatory tech \_\_\_\_\_ Date: \_\_\_\_\_ Email: regulatorypermitting@gwogco.c \_\_\_\_\_

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.

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	General Housekeeping	General housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur prompt cleanup is required to minimize any commingling of waste materials with storm water runoff. Routine maintenance will be limited to fueling and maintenance of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly and promptly.
2	Drilling/Completion Operations	GWOC will comply with the "COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area", dated May 29, 2012
3	Drilling/Completion Operations	Multi Well Open Hole Logging One of the first wells drilled on the pad will be logged with open-hole Resistivity 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 id production liner is run) into the surface casing. The horizontal portion of every well will be logging with a measure-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 and number) the well in which open-hole logs were run.
4	Drilling/Completion Operations	Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment.

Total: 4 comment(s)

## Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
400839228	OffsetWellEvaluations Data
400936119	STIMULATION SETBACK CONSENT
400936120	PROPOSED SPACING UNIT
400936122	WELL LOCATION PLAT
400936123	EXCEPTION LOC REQUEST
400936126	DEVIATED DRILLING PLAN
400936128	MINERAL LEASE MAP
400936130	30 DAY NOTICE LETTER
400936131	SURFACE AGRMT/SURETY
400936132	DIRECTIONAL DATA

Total Attach: 10 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>

Total: 0 comment(s)

