

**APPLICATION FOR PERMIT TO:**

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

Date Received:  
10/15/2014

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

ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES       Sidetrack

Well Name: Klingenberg      Well Number: C20-780

Name of Operator: NOBLE ENERGY INC      COGCC Operator Number: 100322

Address: 1625 BROADWAY STE 2200

City: DENVER      State: CO      Zip: 80202

Contact Name: Justin Garrett      Phone: (303)228 4449      Fax: (303)228 4286

Email: JGarrett@nobleenergyinc.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20030009

**WELL LOCATION INFORMATION**

QtrQtr: SWSW      Sec: 20      Twp: 4N      Rng: 64W      Meridian: 6

Latitude: 40.291390      Longitude: -104.582280

Footage at Surface:      266 feet      FSL      529 feet      FWL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 4782      County: WELD

GPS Data:  
Date of Measurement: 04/30/2014    PDOP Reading: 1.9    Instrument Operator's Name: Brian Rottinghaus

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

925    FSL      536    FWL      535    FNL      535    FWL

   Sec: 20    Twp: 4N    Rng: 64W      Sec: 20    Twp: 4N    Rng: 64W

**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.)

T4N-R64W Sec 20: S/2SW/4, Sec 21: Part NW/4 & N/2NE/4

Total Acres in Described Lease: 163 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: 828 Feet  
 Building Unit: 920 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 254 Feet  
 Above Ground Utility: 286 Feet  
 Railroad: 5280 Feet  
 Property Line: 266 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: 05/15/2014

**SPACING and UNIT INFORMATION**

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 14 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 535 Feet (Enter 5280 for distance greater than 1 mile.)

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

**SPACING & FORMATIONS COMMENTS**

Unit configuration = T4N-R64W Sec 20: W/2W/2

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
GREENHORN	GRNH		160	GWA

**DRILLING PROGRAM**

Proposed Total Measured Depth: 11450 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 14 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? 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 318A

### DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Land application

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: \_\_\_\_\_ or Document Number: 2614238

### 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	0	0	100	6	100	0
SURF	13+3/4	9+5/8	36	0	928	411	928	0
1ST	8+3/4	7	26	0	7586	585	7586	1000
OPEN HOLE	6+1/8			7587	11450			

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 Aaron Duncan rec'd verbal approval to proceed 10/14/2014 8:57 AM. Revised directional plan attached.

Situation  
While drilling ahead in the lateral section at 10,178' on a Greenhorn exploration horizontal, we encountered hole instability and the wellbore collapsed. We were able to avoid becoming stuck and currently we cannot re-enter the well from 9,800'. This occurred at 22:30 on 10/13/14.

We proposed performing an open hole low side sidetrack deeper in section to avoid the geologic hazards.

Details  
TMD Reached in original Hole: 10,178' MD / 7253' TVD  
Proposed sidetrack depth: 8,700' MD / 7263' TVD  
No cement will be pumped in lateral hole section. Hydrocarbon bearing zones are isolated by intermediate casing and cement.  
Proposed objective formation: Greenhorn1 - Same as original hole but deeper in section  
Proposed BHL: Same as permitted - Directional plan will be submitted today.

Casing Strings  
Surface: 9-5/8" J-55, 36#, set at 928', cemented to surface  
Intermediate: 7" P-110IC, 26#, set at 7,586' MD and 7,260' TVD

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

Location ID: 438695

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: Justin Garrett

Title: Regulatory Analyst Date: 10/15/2014 Email: RegulatoryNotification@noble

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: *Matthew Lee* Director of COGCC Date: 10/17/2014

Expiration Date: 10/16/2016

<b>API NUMBER</b>
05 123 40088 02

**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>
	1) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 2) Run and submit Directional Survey from TD to base of surface casing. The operator shall comply with Rule 321, and it shall be the operator's responsibility to ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

## Best Management Practices

**No BMP/COA Type**

**Description**

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### Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

### Attachment Check List

**Att Doc Num**

**Name**

400707313	FORM 2 SUBMITTED
400708277	DIRECTIONAL DATA
400708278	DEVIATED DRILLING PLAN
400708649	CORRESPONDENCE

Total Attach: 4 Files

### General Comments

**User Group**

**Comment**

**Comment Date**

Engineer	Revised the setting depth on the open hole portion to match the TD of 11450, also changed the Drilling and Waste Plan tab to match the 11450 on the Survey.	10/17/2014 9:12:28 AM
Permit	Final Review Completed. No LGD or public comment received.	10/16/2014 3:29:00 PM
Engineer	Offset Wells Evaluated with original APD.	10/16/2014 2:55:50 PM
Permit	This is an unplanned sidetrack for Noble Energy's Klingenberg C20-780 lateral. API# 123-40088-01. Ok to pass.	10/15/2014 12:26:17 PM
Permit	This form has passed completeness.	10/15/2014 12:11:58 PM

Total: 5 comment(s)