

APPLICATION FOR PERMIT TO:

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

Date Received: 11/17/2016

TYPE OF WELL OIL GAS COALBED OTHER _____ Refilling

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES Sidetrack

Well Name: Haffner Well Number: 41-23

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: ()

Email: Justin.Garrett@nblenergy.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20030009

WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 23 Twp: 2N Rng: 64W Meridian: 6

Latitude: 40.129350 Longitude: -104.511680

Footage at Surface: 660 Feet FNL/FSL FNL 660 Feet FEL/FWL FEL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4943 County: WELD

GPS Data:
Date of Measurement: 06/06/2007 PDOP Reading: 2.3 Instrument Operator's Name: Paul Tappy

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 _____

Sec: _____ Twp: _____ Rng: _____ Sec: _____ Twp: _____ Rng: _____

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: Bond

Surface damage assurance if no agreement is in place: Blanket Surface Surety ID: 20030012

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.)

2N-R64W Sec 23: 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: 618 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 403 Feet

Building Unit: 492 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 640 Feet

Above Ground Utility: 726 Feet

Railroad: 5280 Feet

Property Line: 296 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: 4369 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 618 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.)
CODELL	CODL	407-87	80	E/2NE/4
D SAND	DSND		40	GWA
J SAND	JSND	232-23	320	E/2

DRILLING PROGRAM

Proposed Total Measured Depth: 7657 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: 1298 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? _____

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? _____ (If Yes, attach an H₂S Drilling Operations Plan)

Will salt sections be encountered during drilling? _____

Will salt based (>15,000 ppm Cl) drilling fluids be used? _____

Will oil based drilling fluids be used? _____

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: _____ Drilling Fluids Disposal Methods: _____

Cuttings Disposal: _____ Cuttings Disposal Method: _____

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	982	600	982	12
1ST	7+7/8	4+1/2	11.6	0	7657	200	7654	6234

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

1. MIRU. POOH w/ production tubing.
2. RIH and clean out fill to PBSD.
3. RIH w/ cast iron flowthrough bridge plug and set above the JSand perforations.
4. RIH w/ perf guns and perforate D Sand 7,411'-7,417'.
5. RIH w/ workstring and packer. Swab test D Sand for entry.
6. If D Sand swabs at economic rates, run production tubing and RTP
7. If D Sand does not swab at economic rates, set composite bridge plug above D Sand Perfs
8. RIH w/ perf guns and perforate Codell 7,015'-7,030'
9. Frac Codell formation
10. RIH and clean out to PBSD
11. Install production tubing
12. Return well to production

Nearest well in same formation = Gray #1 (API:123-10426)

Nearest outside operated well = L.E. Gerkin #2H (API: 123-41199), 1298' E.

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

Location ID: 311651

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: 11/17/2016 Email: RegulatoryNotification@nblene

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: 12/9/2016

Expiration Date: 12/08/2018

API NUMBER

05 123 21060 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.

COA Type

Description

- | | |
|--|--|
| | 1) Prior to recompletion a bradenhead test shall be performed. If the beginning pressure is greater than 25 psi, or if pressure remains at the conclusion of the test, or if any liquids were present contact COGCC Engineer for sampling requirements. The Form 17 shall be submitted within 10 days of the test.
2) Completed Interval Report, Form 5A, shall be submitted within 30 days after recompletion. |
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Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>Planning:</p> <ul style="list-style-type: none"> The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.
2	Planning	<p>Planning:</p> <ul style="list-style-type: none"> Lighting on location is considered temporary and will be used during recompletion activities. Permanent lighting will not be installed and utilized during normal production operations. Temporary lighting will be directed downward, inward, and shielded towards location to avoid glare on public roads and Building Units within 1,000 feet. Lighting will be turned off when practical, i.e., no operations being conducted.
3	Traffic control	<p>Traffic Control:</p> <ul style="list-style-type: none"> Recomplete operations – The recomplete rig will access the well from the north a county road 20. Dust suppression will be used on county road and temporary access road, if needed. Dust suppression could include a combination of water, magnesium chloride, or calcium chloride. Limited traffic speed could also be used for dust mitigation. Permanent operations - Production of the location will use the existing access road, located directly off of Weld County Road 20.
4	General Housekeeping	<p>General Housekeeping:</p> <ul style="list-style-type: none"> All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.
5	General Housekeeping	<p>General Housekeeping:</p> <ul style="list-style-type: none"> Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.
6	Material Handling and Spill Prevention	<p>Material Handling and Spill Prevention:</p> <ul style="list-style-type: none"> Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.
7	Construction	<p>Construction:</p> <ul style="list-style-type: none"> Unless otherwise requested by the Surface Owner, well sites constructed within the Designated Setback location will be fenced to restrict access by unauthorized persons.
8	Construction	<p>Construction:</p> <ul style="list-style-type: none"> At the time of construction, all leasehold roads shall be constructed to accommodate local emergency vehicle access requirements, and shall be maintained in a reasonable condition. NEI plans on building a temporary access road off of Weld County Road 20 for recompletion activities. Production of the location will use existing road off of Weld County Road 20.
9	Noise mitigation	<p>Noise Mitigation:</p> <ul style="list-style-type: none"> A baseline sound survey will be completed at the residence(s) located 490 feet north east of the Haffner 41-23 well. Engineered sound walls around the recomplete rig will be used, as applicable based on the noise survey findings.

Total: 9 comment(s)

Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf
Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area. http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2158039	PROPOSED SPACING UNIT
401151250	FORM 2 SUBMITTED
401151300	WELLBORE DIAGRAM
401151301	WELLBORE DIAGRAM
401152298	EXCEPTION LOC REQUEST

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Complete. Operator has submitted a PSU for the D Sand as no unit exists for this formation. Operator is still finalizing SUA and has opted to bond on (location is in a GWA window) for right to construct. Sundry will be submitted next week with SUA to remove surface bond.	12/09/2016
Permit	Passes completeness. Operator has requested approval as soon as public comment ends.	11/17/2016

Total: 2 comment(s)