

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:

401056100

(SUBMITTED)

Date Received:

08/04/2016

#### APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Bona State

Well Number: N35-680

Name of Operator: NOBLE ENERGY INC

COGCC Operator Number: 100322

Address: 1625 BROADWAY STE 2200

City: DENVER

State: CO

Zip: 80202

Contact Name: Susan Miller

Phone: (303)228-4246

Fax: ( )

Email: susan.miller@nblenergy.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20030009

#### WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 36 Twp: 5N Rng: 67W Meridian: 6

Latitude: 40.360220

Longitude: -104.835080

Footage at Surface: 1125 feet

FNL/FSL

FNL

850

feet

FEL/FWL

FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4891

County: WELD

GPS Data:

Date of Measurement: 03/29/2016 PDOP Reading: 1.5 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 FNL/FWL Bottom Hole: FNL/FSL FNL/FWL

660

FNL

460

FEL

660

FNL

535

FWL

Sec: 36

Twp: 5N

Rng: 67W

Sec: 35

Twp: 5N

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: 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.)

T5N-R67W, Section 36: All.

Total Acres in Described Lease: 640 Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian

Federal or State Lease # 06 81-6923-S

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 330 Feet  
Building Unit: 983 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 843 Feet  
Above Ground Utility: 822 Feet  
Railroad: 5280 Feet  
Property Line: 469 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: 04/08/2016

## 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: 26 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

Spacing Configuration: N/2N/2 Section 35, N/2N/2 Section 36, T5N-R67W.  
Spacing Unit contains State minerals, Lease No. 06 81-6923-S.  
Please see attached proposed spacing unit.

## 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		320	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 17181 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: 26 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? 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	42	0	80	6	80	0
SURF	13+3/4	9+5/8	36	0	1850	535	1850	0
1ST	8+1/2	5+1/2	20	0	17181	1808		

☐ 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 4-well pad consists of: Bona State N35-690 Ref, doc no. 401055803, Bona State N35-685, doc no. 401055915, Bona State N35-680, doc no. 401056100, Bona State N35-675, doc no. 401056101. Noble Energy intends to permit this well as a monobore. No intermediate casing will be run. The surface casing will be set to cover the base of the Pierre Aquifer for Oil Based Mud considerations. Oil Based Mud will be planned for the production hole interval only. Noble Energy shall isolate both the Fox Hills and Upper Pierre Aquifers with surface casing from hydrocarbon bearing zones and exposure to oil based drilling fluid. Noble Energy also agrees to not expose the Upper Pierre Aquifer to oil based mud. All cuttings will be taken to a certified disposal. Nearest well in same formation and the nearest well belonging to another Operator = Stroh 35-2, API No. 05-123-13886, Synergy Resources. The lateral path will be less than the 150' minimum distance from other wells as required by Rule 317.r. Noble is not the Operator of the encroached upon well(s), therefore please find attached a signed consent from the Offset Operator as required under Rule 317.s. Please see Page 4, Section 6, Paragraph A of the attached Surface Use Agreement for exception location waiver language to COGCC Rule 318A.a. to locate any well outside of the GWA window and COGCC Rule 318A.c. to locate any well greater than fifty (50) feet from an existing well.

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

Location ID: 421086

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: Susan Miller

Title: Regulatory Analyst III Date: 8/4/2016 Email: Regulatorynotification@nblener

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	<p>Anti-collision: 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 well path 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. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.</p> <p>Bradenhead Monitoring: Operator will comply with the COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. The Colorado Oil and Gas Conservation Commission has established this Policy regarding Bradenhead monitoring during Hydraulic Fracturing Treatments ("Treatment") in the Greater Wattenberg Area ("GWA") pursuant to COGCC Rule 207.a. Policy. This Policy applies to oil and gas operations in the GWA as defined by the COGCC Rules of Practice and Procedure.</p>
2	Planning	<p>When Using an Existing Well's Log as an Exception: One of the first wells drilled on the pad will be logged with cased-hole pulsed neutron log with gamma ray log from kick-off point to 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 shall clearly state "No open-hole logs were run" and shall reference the Rule 317.p Exception granted for the well.</p>
3	Planning	<p>COGCC Rule 604.c.(2)I. BOPE testing for drilling operations. Planning:</p> <ul style="list-style-type: none"> <li>• Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.</li> </ul>
4	Planning	<p>COGCC Rule 604.c.(2)J. BOPE for well servicing operations. Planning:</p> <ul style="list-style-type: none"> <li>• Adequate blowout prevention equipment shall be used on all well servicing operations.</li> <li>• Backup stabbing valves shall be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.</li> </ul>
5	Planning	<p>COGCC Rule 604.c.(2)L. Drill stem tests. Planning:</p> <ul style="list-style-type: none"> <li>• Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director.</li> </ul>
6	Planning	<p>COGCC Rule 604.c.(2)U. Identification of plugged and abandoned wells. Planning:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>

7	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 stormwater runoff. Routine maintenance will be limited to fueling and lubrication 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 of trash and discarded materials will be conducted at the end of each work day. Cleanup will consist of patrolling the roadway, 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.
8	Storm Water/Erosion Control	Stormwater management plans (SWMP) are in place to address construction, drilling and operations associated with Oil & Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE) and General Permit No. COR-038637. BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. BMP's used will vary according to the location and will remain in place until the pad reaches final reclamation.
9	Material Handling and Spill Prevention	Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spill associated with Oil & Gas operations throughout the state of Colorado in accordance with CFR 112.
10	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)K. Pit level indicators. Material Handling and Spill Prevention: <ul style="list-style-type: none"> <li>• Due to using a closed loop system pits will not be used.</li> </ul>
11	Emissions mitigation	COGCC Rule 604.c.(2).C. Green Completions – Emission Control Systems. Emissions Mitigation: <ul style="list-style-type: none"> <li>• Flow lines, separators, and sand traps capable of supporting green completions as described in Rule 805 shall be installed at any Oil and Gas Location at which commercial quantities of gas are reasonably expected to be produced based on existing adjacent wells within 1 mile.</li> <li>• Uncontrolled venting shall be prohibited in an Urban Mitigation Area.</li> <li>• Temporary flowback flaring and oxidizing equipment shall include the following: <ul style="list-style-type: none"> <li>o Adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten (10) mile radius;</li> <li>o Valves and porting available to divert gas to temporary equipment or to permanent flaring and oxidizing equipment; and</li> <li>o Auxiliary fuel with sufficient supply and heat to sustain combustion or oxidation of the gas mixture when the mixture includes non-combustible gases.</li> </ul> </li> </ul>
12	Drilling/Completion Operations	COGCC Rule 604.c.(2)Q. Guy line anchors. Drilling/Completion Operations: <ul style="list-style-type: none"> <li>• All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.</li> </ul>
13	Drilling/Completion Operations	BOPE testing for drilling operations. If a skid is performed for the subject well, then the only required BOPE tests are for the BOPE connection bonnet seal breaks, as long as a full BOPE test was performed at the beginning of the pad, and as long as all necessary BOPE tests are completed at least every 30 days during the pad operations. If a skid is performed for the subject well, then the only required BOPE tests are for the BOPE connection bonnet seal breaks, as long as a full BOPE test was performed at the beginning of the pad, and as long as all necessary BOPE tests are completed at least every 30 days during the pad operations.

14	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)H. Blowout preventer equipment ("BOPE").</p> <p>Drilling/Completion Operations:</p> <ul style="list-style-type: none"> <li>• Blowout prevention equipment for drilling operations in a Designated Setback Location shall consist of (at a minimum): <ul style="list-style-type: none"> <li>o Rig with Kelly. Double ram with blind ram and pipe ram; annular preventer or a rotating head.</li> <li>o Rig without Kelly. Double ram with blind ram and pipe ram.</li> </ul> </li> </ul> <p>Mineral Management certification or Director approved training for blowout prevention shall be required for at least one (1) person at the well site during drilling operations</p>
15	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)B. Closed Loop Drilling Systems – Pit Restrictions.</p> <p>Drilling/Completion Operations:</p> <ul style="list-style-type: none"> <li>• Closed loop drilling systems are required within the Buffer Zone Setback.</li> <li>• Pits are not allowed on Oil and Gas Locations within the Buffer Zone Setback, except fresh water storage pits, reserve pits to drill surface casing, and emergency pits as defined in the 100-Series Rules.</li> <li>• Fresh water pits within the Exception Zone shall require prior approval of a Form 15 pit permit. In the Buffer Zone, fresh water pits shall be reported within 30-days of pit construction.</li> <li>• Fresh water storage pits within the Buffer Zone Setback shall be conspicuously posted with signage identifying the pit name, the operator's name and contact information, and stating that no fluids other than fresh water are permitted in the pit. Produced water, recycled E&amp;P waste, or flowback fluids are not allowed in fresh water storage pits.</li> <li>• Fresh water storage pits within the Buffer Zone Setback shall include emergency escape provisions for inadvertent human access.</li> </ul>

Total: 15 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401056100	FORM 2 SUBMITTED
401070863	DEVIATED DRILLING PLAN
401070864	WELL LOCATION PLAT
401070866	DIRECTIONAL DATA
401078033	OPEN HOLE LOGGING EXCEPTION
401080434	OffsetWellEvaluations Data
401087936	SURFACE AGRMT/SURETY
401087939	PROPOSED SPACING UNIT
401093437	EXCEPTION LOC REQUEST
401098368	STIMULATION SETBACK CONSENT

Total Attach: 10 Files

### General Comments

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

Total: 0 comment(s)