

FORM

2

Rev  
08/19

## 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:

402092785

## APPLICATION FOR PERMIT TO:

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

Date Received:

12/19/2019

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: \_\_\_\_\_Refilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Reveille

Well Number: A34-778

Name of Operator: NOBLE ENERGY INC

COGCC Operator Number: 100322

Address: 1001 NOBLE ENERGY WAY

City: HOUSTON State: TX Zip: 77070

Contact Name: Craig Richardson

Phone: (303)228-4232

Fax: ( )

Email: regulatorynotification@nblenergy.com

## RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20030009

## WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 34 Twp: 6N Rng: 64W Meridian: 6

Latitude: 40.437010

Longitude: -104.540330

Footage at Surface: 542 Feet FNL/FSL FSL 1508 Feet FEL/FWL FWL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4631

County: WELD

GPS Data:

Date of Measurement: 04/18/2019 PDOP Reading: 1.3 Instrument Operator's Name: Scott Estabrooks

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 FSL 765 FWL 200 FNL 781 FWL  
 Sec: 34 Twp: 6N Rng: 64W Sec: 27 Twp: 6N Rng: 64W

## LOCAL GOVERNMENT INFORMATION

County: WELD

Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.

☒ Yes ☐ NoIf yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location. ☒

The local government siting permit type is: WOGLA

The local government siting permit was filed on: 07/15/2019

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WOGLA approved 9/5/2019 WOGLA19-0158

## 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.)

T6N-R64W, 6th P.M., Sec. 34: S/2, S/2N/2, EXCEPT 62.45 acres, more or less, included in the Brisco Reservoir (Total Acres 417.56)

Total Acres in Described Lease: 417 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: 630 Feet

Building Unit: 1043 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 528 Feet

Above Ground Utility: 508 Feet

Railroad: 5280 Feet

Property Line: 197 Feet

School Facility: 5280 Feet

School Property Line: 5280 Feet

Child Care Center: 5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: 707 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 200 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

Drilling and Spacing Unit configuration: T6N-R64W, 6th P.M., Sec. 26: W/2, Sec. 27: ALL, Sec. 28: E/2E/2, Sec. 33: E/2E/2, Sec. 34: ALL, Sec. 35: W/2.

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: \_\_\_\_\_

## 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           | 407-2908                | 2240                          | S26,27,28,33,34,35                   |

## DRILLING PROGRAM

Proposed Total Measured Depth: 16607 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: 111 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:

Drilling waste disposal information added to address non-oil based mud and fluids in non-producing portion of wellbore.

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             | 42    | 0             | 80            | 173       | 80      | 0       |
| SURF        | 13+1/2       | 9+5/8          | 36    | 0             | 1850          | 658       | 1850    | 0       |
| 1ST         | 8+1/2        | 5+1/2          | 17    | 0             | 16607         | 1818      | 16607   |         |

☐ 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 | <p>The Windows/Twinning exception location waiver is included in the SUA (Page 4, Sec 6).</p> <p>The Reveille A34-788 (Form 2 Doc #402092784), proposed by Noble Energy, Inc, is the nearest well in the same formation, the distance was measured in 2D.</p> <p>The nearest wellbore belonging to another operator was measured to the Howard 04-27 (05-123-13630, PA), operated by Cannon Resources. The distance was measured utilizing the Anti Collision Report attached with Deviated Drill Plan measured in 3D.</p> <p>No wells owned by other operators are Producing, Temporarily Abandoned, or Shut-In within 150' of this wells productive lateral, therefore stimulation setback consent is not needed.</p> <p>Noble Energy shall isolate both the Fox Hills and Upper Pierre Aquifers with surface casing from hydrocarbon bearing zones and exposures to oil based drilling fluid. Noble Energy also agrees to not expose the Upper Pierre Aquifer to oil based mud.</p> |
|----------|--|

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

Location ID: 469940

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: Julie Webb

Title: Sr. Regulatory Analyst Date: 12/19/2019 Email: DenverRegulatory@nblenergy.

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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  \_\_\_\_\_ Director of COGCC Date: 2/21/2020

Expiration Date: 02/20/2022

**API NUMBER**

05 123 50791 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>  |
|--------------------------------|---|
| Drilling/Completion Operations | This Permit to Drill is approved subject to all the BMPs and COAs on the most recently approved Form 2A and any subsequently approved Form 4 for the Oil and Gas Location (Location ID # 469940). The most recently approved Form 2A and any subsequent Form 4s containing applicable COAs for this location shall be posted onsite during construction, drilling, and completions operations.  |
| Drilling/Completion Operations | Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:<br>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.<br>2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.<br>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.   |
| Drilling/Completion Operations | 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad.<br>2) Comply with Rule 317.j and provide cement coverage from the end of production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.<br>3) Oil-based drilling fluid is to be used only after all aquifers are covered.   |
| Drilling/Completion Operations | Operator acknowledges the proximity of the listed non-producing well(s). Operator agrees to provide mitigation Option 3 (per the DJ Basin Horizontal Offset Policy, ensure all applicable documentation is submitted , and submit Form 42(s) "OFFSET MITIGATION COMPLETED" for the remediated well(s), referencing the API Number of the proposed horizontal wells stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of the proposed wells.<br><br>Howard 04-27 (API NO 123-13630)  |
| Drilling/Completion Operations | Operator acknowledges the proximity of the following non-operated listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.<br><br>Howard 03-27 (API NO 123-13811)  |
| Drilling/Completion Operations | Operator acknowledges the proximity of the listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.<br><br>French 09-33 (API NO 123-12941)Clemons 02-03 (API NO 123-13026)<br>Webster 09-28 (AOI NO 123-13060)Stout 03-03 (API NO 123-13188)<br>Petrikin A 34-08 (API NO 123-13476)Granados 04-03 (API NO 123-21647)<br>Petrikin A 34-25(API NO 123-21714)Wardlaw 16-28 (API NO 123-21812) |

## Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u>            | <u>Description</u>  |
|-----------|--------------------------------|---|
| 1         | Drilling/Completion Operations | Bradenhead Monitoring: Operator acknowledges and will comply with COGCC Policy for Braden-head Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.   |
| 2         | Drilling/Completion Operations | Alternative Logging Program: One of the first wells drilled on the pad will be logged with an open-hole resistivity log and gamma-ray, from the kick-off point into the surface casing. All wells on the pad will have a cement bond log (CBL) 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 "Alternative Logging Program - No open-hole logs were run" and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run. |
| 3         | Drilling/Completion Operations | Anti-collision: Operator 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 shall be given to all offset operators prior to drilling.   |

Total: 3 comment(s)

## Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.  
[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](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>                |
|--------------------|----------------------------|
| 402092785          | FORM 2 RESUBMITTED         |
| 402263855          | FORM 2 REJECTED            |
| 402264682          | DEVIATED DRILLING PLAN     |
| 402264684          | OffsetWellEvaluations Data |
| 402264686          | EXCEPTION LOC REQUEST      |
| 402264687          | SURFACE AGRMT/SURETY       |
| 402264699          | WELL LOCATION PLAT         |
| 402266488          | DIRECTIONAL DATA           |
| 402319896          | OFFSET WELL EVALUATION     |

Total Attach: 9 Files

## General Comments

| <u>User Group</u>    | <u>Comment</u>   | <u>Comment Date</u> |
|----------------------|--|---------------------|
| Permit               | Final Review Completed.  | 02/18/2020          |
| Permit               | COGCC conducted the technical review for the related Oil and Gas Location Assessment permit, Form 2A document #402092802 under the statutory authority provided through SB 19-181, including the Objective Criteria. The Director approved the Form 2A on 12/16/2019, establishing Location ID #469940 subject to conditions included in the permit. The well proposed by this related Form 2 was contemplated during COGCC's review of the Form 2A. The Objective Criteria Review Memo (Doc# 2479152) can be found in the document file for this Location.  | 02/12/2020          |
| Engineer             | Offset Wells Evaluated   | 01/27/2020          |
| Permit               | •Permitting review complete WO Objective Criteria Review.  | 01/13/2020          |
| Permit               | Passed Completeness.   | 01/03/2020          |
| Permit               | Returned to draft:<br>•On the submit tab, correct the response to, "Is this application being submitted with an Oil and Gas Location Assessment application?" question, now that the 2A has been approved.<br>•Docket # on the Spacing & Formations tab is no longer needed and the word "proposed" in the spacing description is no longer applicable. Recommend removal.   | 12/27/2019          |
| Permit<br>(Rejected) | <p>This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is rejecting this application consistent with the Rejection Process – Form 2 and 2A (May 21, 2019) posted in the Form 2 and Form 2A Instructions section of our website. In compliance with § 24-65.1-108(1), C.R.S., the COGCC is returning this application to the applicant to remedy the deficiencies. The applicant may resubmit this application for COGCC review; upon determination of completeness for any resubmitted application, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review.</p> <p>In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary prior to determination of completeness:</p> <ol style="list-style-type: none"> <li>1. This Form 2 will not be determined to be complete until the related Form 2A (Document # 402092802) has been approved.</li> <li>2. This Form 2 will not be determined to be complete until the WOGLA has been approved.</li> <li>3. The wellbore trajectory from top of production zone to the bottom hole location is missing from the well location plat. Update the well location plat with this information.</li> <li>4. Unit Configuration is missing on the Spacing &amp; Formations tab. Provide the unit configuration and add the approved spacing order number, now that it has been approved.</li> <li>5. Incorrect well is cited on the Submit tab for "distance to nearest completed portion of offset wellbore permitted or completed in the same formation". Correct well cited on the Operator Comments on the Submit tab.</li> </ol> | 12/16/2019          |
| OGLA                 | Per COGCC Guidance SB 19-181: Form 2 Permit Applications in Weld County (September 17, 2019), this Form 2 has been placed ON HOLD until the required Form 2A (Oil & Gas Location Assessment), WOGLA, and applicable DSU have been approved and provided.   | 10/05/2019          |
| Permit               | •Missing unit configuration.<br>•Missing wellbore trajectory from TPZ to BHL on well location plat.<br>•Incorrect well cited on submit tab for distance to nearest completed portion of offset wellbore permitted or completed in the same formation. Should be the Reveille A34-768.  | 09/27/2019          |
| Permit               | Passed Completeness.<br>Added local government information.  | 08/08/2019          |

Total: 10 comment(s)