

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:
401181762
(SUBMITTED)

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 ☐

Date Received:

Well Name: Larson Well Number: A23-645
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: SWNW Sec: 19 Twp: 6N Rng: 63W Meridian: 6
Latitude: 40.472480 Longitude: -104.486850
Footage at Surface: 2397 Feet FNL/FSL FNL 535 Feet FEL/FWL FWL
Field Name: WATTENBERG Field Number: 90750
Ground Elevation: 4649 County: WELD
GPS Data:
Date of Measurement: 08/09/2016 PDOP Reading: 2.0 Instrument Operator's Name: Casey Kohout
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
2250 FSL 415 FWL 2300 FSL 0 FWL
Sec: 19 Twp: 6N Rng: 63W Sec: 23 Twp: 6N 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.)

All, Sec 19, T6N, R63W

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: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1775 Feet
Building Unit: 1946 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 521 Feet
Above Ground Utility: 427 Feet
Railroad: 5280 Feet
Property Line: 207 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: 129 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 839 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Unit Configuration = T6N-R63W Sec 19: W/2NW/4, S/2, Sec 20: S/2, Sec 21: W/2SW/4, T6N-R64W Sec 22: E/2E/2, Sec 23: All, Sec 24: All

Docket #170100090 approved on March 20 hearing; spacing order number not yet issued.

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 | TBD | 2240 | |

DRILLING PROGRAM

Proposed Total Measured Depth: 18106 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: 231 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S 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:

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

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 | 658 | 1850 | 0 |
| 1ST | 8+1/2 | 5+1/2 | 20 | 0 | 18106 | 2367 | | |

☐ 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 Well is part of the four-well AA19-32 Multi consisting of the proposed Larson A23-645 (Doc #401181762), Larson A23-651 (Doc #401181763), Larson A23-656 (Doc #401181764), & Larson A23-662 – Ref. well (Doc #401181765), with the production facilities within the disturbance.
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 UPAq to oil based mud.
Nearest well is the Pepler 24-32 (API: 123-26192) 129' as indicated in attached anti-collision. Well is Noble operated, therefore no 317.s consent is required.
Nearest non-op is the PDC operated McIntosh 43-23 (API: 123-21663) 231' as indicated in attached anti-collision.
Waiver language is included in attached SUA (Page 4, Section 6, Paragraph A).

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

Location ID: _____

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: Justin Garrett

Title: Regulatory Analyst Date: _____ Email: RegulatoryNotification@nblene

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 | General Housekeeping | 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 pickup trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly. |
| 2 | 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) 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 and maintained until the pad reaches final reclamation. |
| 3 | 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. |
| 4 | Drilling/Completion Operations | <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 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. 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>During and Post stimulation: Noble Energy will comply with the COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated 5/29/12</p> |
| 5 | Drilling/Completion Operations | 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. |
| 6 | Drilling/Completion 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. |

Total: 6 comment(s)

Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u> |
|--------------------|-----------------------------|
| 401238785 | OffsetWellEvaluations Data |
| 401238787 | DIRECTIONAL DATA |
| 401238791 | WELL LOCATION PLAT |
| 401238792 | SURFACE AGRMT/SURETY |
| 401238797 | OPEN HOLE LOGGING EXCEPTION |
| 401238798 | EXCEPTION LOC REQUEST |
| 401241258 | DEVIATED DRILLING PLAN |

Total Attach: 7 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|----------------|---------------------|
| | | Stamp Upon Approval |

Total: 0 comment(s)

Public Comments

No public comments were received on this application during the comment period.

