

FORM
2A

Rev
04/18

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:

401795634

Date Received:

10/31/2018

Oil and Gas Location Assessment

☒ New Location ☐ Refile ☐ Amend Existing Location Location#: _____

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

459542

Expiration Date:

10/28/2024

☒ This location assessment is included as part of a permit application.

CONSULTATION

- ☒ This location is included in a Comprehensive Drilling Plan. CDP # 11984
☐ This location is in a sensitive wildlife habitat area.
☐ This location is in a wildlife restricted surface occupancy area.
☐ This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 100322
Name: NOBLE ENERGY INC
Address: 1001 NOBLE ENERGY WAY
City: HOUSTON State: TX Zip: 77070

Contact Information

Name: Holly Hill
Phone: (303) 228-4232
Fax: ()
email: CDPNBLPermitting@nblenergy.com

FINANCIAL ASSURANCE

- ☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20030009 ☐ Gas Facility Surety ID (Rule 711): _____
☐ Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: C33-15 Number: Multi
County: WELD
QuarterQuarter: SWSE Section: 33 Township: 4N Range: 64W Meridian: 6 Ground Elevation: 4720
Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.
Footage at surface: 468 feet FSL from North or South section line
1764 feet FEL from East or West section line
Latitude: 40.263030 Longitude: -104.552870
PDOP Reading: 1.5 Date of Measurement: 09/20/2018
Instrument Operator's Name: Robert Rowe

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID #

FORM 2A DOC #

Production Facilities Location serves Well(s)

401795635

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	8	Oil Tanks*	4	Condensate Tanks*		Water Tanks*	4	Buried Produced Water Vaults*	2
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	8	Separators*	18	Injection Pumps*		Cavity Pumps*		Gas Compressors*	5
Gas or Diesel Motors*		Electric Motors		Electric Generators*	4	Fuel Tanks*		LACT Unit*	4
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*	4	Flare*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

Meter Building	13
Water Pump Skid	2
IA Skid	1
Launcher/Receiver	2
Pump	5
Knockout Vessel	2
Scrubber	14
Oil Surge Drum	1
Maintenance Tank	1
Heater Treater	4
Gas Lift Meter Building	2

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Eighteen (18) 2-4" Steel Three Phase Flowlines,
Thirteen (13) 2-4" Steel Gas Lift Lines,
Two (2) 8-16" Steel Gas Gathering Lines,
Two (2) 8-16" Steel Oil lines,
Two (2) 4-8" Steel Produced Water Lines,
Three (3) 3-8" Temporary Fresh Water Poly Lines

CONSTRUCTION

Date planned to commence construction: 11/01/2022

Size of disturbed area during construction in acres: 23.10

Estimated date that interim reclamation will begin: 05/01/2023

Size of location after interim reclamation in acres: 12.80

Estimated post-construction ground elevation: 4720

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Guttersen Ranches

Phone:

Address: PO Box 2176

Fax:

Address:

Email:

City: Greeley State: CO Zip: 50632-2176

Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian

Check all that apply. The Surface Owner: ☒ is the mineral owner

☒ 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 from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

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

Date of Rule 306 surface owner consultation

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe):

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

Future Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe):

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	2234 Feet	2015 Feet
Building Unit:	2234 Feet	2015 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	1665 Feet	1617 Feet
Above Ground Utility:	1710 Feet	1662 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	317 Feet	97 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- 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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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.
- Large UMA Facility - 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: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- ☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- ☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 72 - Vona loamy sand, 0 to 3 percent slopes

NRCS Map Unit Name: 70 - Valent sand, 3 to 9 percent slopes

NRCS Map Unit Name: 43 - Nunn loamy sand, 0 to 1 percent slopes

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☐ NRCS or, ☒ field observation Date of observation: 09/20/2018

List individual species:

Check all plant communities that exist in the disturbed area.

- ☒ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
☐ Alpine (above timberline)
☐ Other (describe):

WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: 29 Feet

water well: 1794 Feet

Estimated depth to ground water at Oil and Gas Location 14 Feet

Basis for depth to groundwater and sensitive area determination:

Location is sensitive due to floodplain 29' east and depth to groundwater which was determined from permit #18802.

Is the location in a riparian area: ☒ No ☐ Yes

Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified:

Is the Location within a Floodplain? ☒ No ☐ Yes Floodplain Data Sources Reviewed (check all that apply)

☒ Federal (FEMA)

☒ State

☐ County

☐ Local

☐ Other

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

WILDLIFE

☐ This location is included in a Wildlife Mitigation Plan

☐ This location was subject to a pre-consultation meeting with CPW held on

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area
- ☐ 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)

RULE 502.b VARIANCE REQUEST

- ☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

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>In addition to the equipment listed above, ancillary equipment may be used on the production site temporarily, and may include Tanks, VOCs, Water Coolers, and Scrubbers, depending on the volume, temperature and nature of produced water.</p> <p>Completion activities including flowback are occurring on the well pads related to this production facility.</p> <p>Wells and production facilities on permitted pads will be removed and/or P&Ad and reclaimed prior to construction operations on the new proposed pads.</p> <p>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.'s: COR03N578; COR03N579; COR03N580; and COR03O059.</p> <p>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.</p> <p>The attached Waste Management Plan contains information regarding the management and disposal of water-based fluids and cuttings.</p>
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I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 10/31/2018 Email: CDPNBLPermitting@nblenergy.com

Print Name: Ann Feldman Title: Regulatory Manager

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: 12/4/2018

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type

Description

	The Approved Form 2A permit will be posted at the location during construction, drilling, and completions operations.
	This Form 2A and related Form 2s are approved subject to the Noble Mustang CDP accepted by Commission Order # 1-228.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	Lighting on well pad locations is considered temporary and will be used during completion and construction activities. 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. On production facilities some lighting will be installed on timers; permanent lighting may be used when necessary.
2	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.
3	Storm Water/Erosion Control	Stormwater BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. Specific BMP's used may include stockpile stabilization, grading, sediment traps, and perimeter barriers based on final construction design and will remain in place until the pad reaches final reclamation.
4	Dust control	Noble shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high- wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers, or automation of wells to reduce truck traffic may also be used if technologically feasible and economically reasonable to minimize fugitive dust emissions.
5	Construction	<p>1. A contiguous spray liner will be installed and will underlay the entire tank battery. The location of a partially buried cement water vault will be excavated prior to liner install.</p> <p>2. A 60 bbl cement water vault will be utilized to collect excess produced water from oil tanks. Produced water in the vault will be removed as needed and disposed of in an approved UIC disposal well. The cement water vault is one piece with no seams designed to minimize potential for leaks. All piping associated with the use of the water vault will be aboveground and visually inspected on a regular basis.</p> <p>3. The partially buried cement water vault will be installed above the spray in liner.</p> <p>4. A sized steel secondary containment ring will be installed surrounding the entire tank battery. Sand and gravel bedding will be installed to protect the liner prior to placing equipment in the containment area.</p>
6	Emissions mitigation	<p>The operator shall employ sand traps, surge vessels, separators, and tanks during flowback and cleanout operations to safely maximize resource recovery and minimize releases to accommodate green completions techniques.</p> <p>Operator will use an enclosed combustion device with a 98% design destruction efficiency for hydrocarbons.</p> <p>When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to the sales line or wells will be shutin and gas conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C. The Rule 912 notice and approval requirements apply regardless of a variance from Rule 805.b.(3)C.</p>

Total: 6 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2303419	WASTE MANAGEMENT PLAN
401795681	LOCATION PICTURES
401796577	MULTI-WELL PLAN
401815268	LOCATION DRAWING

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	PLaced ON HOLD. Attachments Laser Fisch issues. Issue corrected. Pushed to IN PROCESS.	11/30/2018
Permit	Final Review Completed.	11/28/2018
OGLA	All changes have been made with Operator concurrence.	11/16/2018
OGLA	Attached the updated Waste Management Plan.	11/16/2018
Permit	Permitting Review Complete.	11/13/2018
OGLA	Changed estimated depth to groundwater to 14 feet based on the depth to water reported for DWR Water Well Permit #18802. Changed the Basis Statement to reflect DWR Permit #18802.	11/13/2018
OGLA	11/08/2018 - location does not fall within 'Sensitive Wildlife Habitat' or 'Restricted Surface Occupancy' areas; therefore, no CPW consultation is required; 11/08/2018 - initiated / completed Form 2A review by Dave Kubeczko; placed Noble Mustang CDP (Commission Order #1-228) and required posting of Form 2A (during construction, drilling, and completions operations) COAs on the Form 2A; operator's BMPs are compliant with the CDP; 11/22/18 - passed OGLA Form 2A review by Dave Kubeczko with Noble Mustang CDP and required posting of Form 2A COAs; operator's proposed BMPs are sufficient.	11/08/2018
OGLA	Passed Completeness.	11/01/2018

Total: 8 comment(s)