

FORM
2A

Rev
02/20

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:

402354497

(SUBMITTED)

Date Received:

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 <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

Expiration Date:

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

CONSULTATION

- This location is included in a Comprehensive Drilling Plan. CDP # _____
- 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: Craig Richardson
 Phone: (303) 228-4232
 Fax: ()
 email: Regulatorynotification@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: A30-01 Number: Pad
 County: WELD
 Quarter: NENE Section: 30 Township: 6N Range: 64W Meridian: 6 Ground Elevation: 4698

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: 904 feet FNL from North or South section line
270 feet FEL from East or West section line

Latitude: 40.461730 Longitude: -104.584660

GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 01/30/2020

Instrument Operator's Name: DUNCAN HOTCHKISS

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 No

If 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: 1041 WOGLA

The local government siting permit was filed on: 03/11/2020

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

Additional explanation of local process:

1041WOGLA20-0021 approved 4/30/2020.

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: Well Site is served by Production Facilities **LOCATION ID #** 472865 **FORM 2A DOC #** _____

FACILITIES

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

Wells	<u>6</u>	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	_____	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	<u>1</u>
Pump Jacks	_____	Separators*	_____	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	_____	Flare*	_____	Pigging Station*	_____

OTHER FACILITIES*

<u>Other Facility Type</u>	<u>Number</u>
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<u>Gas Lift Meter Buildings</u>	<u>2</u>
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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:

Six (6) 2-4" Steel Three Phase Flowlines, Eight (8) 2-4" Steel Gas Lift Lines, Two (2) 12" Temp Poly Lines for fresh water

CONSTRUCTION

Date planned to commence construction: 09/01/2020 Size of disturbed area during construction in acres: 7.50

Estimated date that interim reclamation will begin: 12/01/2020 Size of location after interim reclamation in acres: 1.10

Estimated post-construction ground elevation: 4698

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? No

Reuse Facility ID: _____ or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Gerald Lee Roth Phone: _____

Address: 32100 County Road 49 Fax: _____

Address: _____ Email: _____

City: Greeley State: CO Zip: 80631

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: Surface Use Agreement

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

Date of Rule 306 surface owner consultation 02/13/2018

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s): _____

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:	902 Feet	808 Feet
Building Unit:	785 Feet	695 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	257 Feet	258 Feet
Above Ground Utility:	234 Feet	234 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	270 Feet	270 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.
 - For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? Yes No

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: 03/02/2020

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.

Siting Rational Attached

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 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: 46 - Olney fine sandy loam, 0 to 1_percent_slopes

NRCS Map Unit Name: 51 - Otero sandy loam, 1 to 3 percent slopes

NRCS Map Unit Name: _____

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: _____

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: 26 Feet

water well: 436 Feet

Estimated depth to ground water at Oil and Gas Location 35 Feet

Basis for depth to groundwater and sensitive area determination:

The nearest downgradient water feature is the ditch 26' East of the location.
The nearest water well is Receipt number 3631646A located to the NW of the edge of disturbance. Permit 293023-A located to the WNW of the edge of disturbance was used as a basis for depth to ground water and sensitive area determination, static water level was 35 feet.

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 zone: 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 _____

Operator Proposed Wildlife BMPs

No BMP

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

There are six (6) proposed wells to be drilled on the A30-01 Pad Location:
ROTH A31-730, ROTH A31-720, ROTH A32-790, ROTH A32-779, ROTH A32-770, ROTH A32-760
The proposed A30-01 Pad will produce to the A19-11 Tank, Location ID 472865.

There are Building Units within 1,000' of this Location. Per Rules 305.a. and 303.b.(3).J.iii. Pre-application notifications have been sent to Building Unit Owners within the Buffer Zone. Health Study notices were sent January 3rd, 2020.

There are no Schools, School Facilities, School Properties or Child Care Centers within 1,320' of the Oil and Gas location and therefore a Rule 305.a.(4) certification has not been provided with the submittal of this application.

See attached the Operator's certification that the MLVT will be designed and implemented consistent with the June 13, 2014 COGCC MLVT policy.

- Vendor: ShaleStone
- Number & Size: We will set one (1) MLVT (67' Diameter, 20,000 bbl) on location
- Anticipated Time Frame on location: 4 Months
- Location/Placement: SW corner as depicted on Location Drawing

NEI is requesting a new Location ID as the Roth 1-30, Location ID 323442 has been P&A and needs to be closed out. The Tank Battery Location ID 436808, for the Roth 1-30 (NE of the proposed Disturbance Area) has been removed and reclaimed.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: _____ Email: Denverregulatory@nblenergy.com

Print Name: Julie Webb Title: Sr. Regulatory Analyst

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ Director of COGCC _____ Date: _____

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

Best Management Practices

No BMP/COA Type

Description

1	Planning	COGCC Rule 604.c.(2)E. Multiwell Pads. Operator shall consolidate wells to create multi-well pads, including shared locations with other operators. Multi-well production facilities shall be located as far as possible from Building Units. The pad shall be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping. Pads shall have all weather access roads to allow for operator and emergency response.
2	Planning	COGCC Rule 604.c.(2)U. Identification of plugged and abandoned wells. 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.

3	Planning	<p>COGCC Rule 604.c.(2)V. Development from existing well pads. Where possible, operators shall provide for the development of multiple reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores (see Rule 322). Due to surface owner constraints, well spacing constraints and the lack of existing and appropriately-sized drill pads in the area, Operator was not able to plan drilling of the proposed wells from pre-existing well pads. The drill pad is located as far from Building Units as the property and land use will allow. Drill pad reference well to B.U. measurements are Northeast; 512', Northwest; 750', and North; 772'. Four other BUs are located within 1,500' from the edge of pad disturbance.</p>
4	Planning	<p>COGCC Rule 803 Lighting Lighting on the drill pad location is considered temporary and will be used during drilling/recompletion activities. Permanent lighting will not be installed and utilized during normal production operations. Temporary lighting will be completely shielded from building units within 1,500 feet by the installed temporary sound walls. Temporary lighting will be directed downward, inward, and shielded towards location to avoid glare on public roads and building units within . Temporary lighting will be on timers or turned off when practical, i.e., no drilling/completion operations being conducted.</p>
5	Planning	<p>COGCC Rule 805.c Fugitive Dust Operator 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. Engineered sound walls no less than 16' tall will be used along the western, northern, southern and eastern sides for well pad A30-01 to mitigate dust impacts to these residences.</p>
6	Planning	<p>COGCC Rule 604.c.(2)F. Leak Detection Plan Operator will monitor well pads and associated equipment on a regular basis to identify fluid leaks, including, but not limited to daily, monthly and annual visual inspections of all wellheads, equipment and fittings (production storage tanks and processing equipment are not located at the A30-01 drill pad) and Operator will perform maintenance if it is deemed necessary through inspection. FLIR-specific inspections of well heads are performed at well start-up. Annual spill prevention inspections at the well pad will be conducted and documented. Annual flowline testing will also occur according to COGCC Rules 1101 and 1102. Automation technology is utilized to monitor any variations in pressures and fluid gauges which could indicate a leak at the well head or flow lines to the production facility. In addition, automation provides remote shut-in capabilities in the event of an emergency.</p>
7	Planning	<p>SURFACE WATER FEATURE SENSITIVE AREA DETERMINATION Shallow Groundwater and Surface Water Protection Grading and drainage of the well pad will be engineered with structural controls to ensure flow to the perimeter channel and into a sediment-trap structure protecting downgradient surface water features (irrigation ditches). In the event of a spill or leak, Operator will investigate the extent of the impacts to determine if groundwater has been impacted. The investigation could include sampling groundwater from within an excavation, drilling and sampling temporary well points or permanent wells, or sampling existing wells, as necessary. If impacts are identified, the extent of the impacts will be delineated and will be remediated to Table 910 standards under an approved Form 27.</p>
8	Traffic control	<p>COGCC Rule 604.c.(2)D. Traffic Plan. Speed limits will be enforced. The traffic plan and route will include mitigation of impacts from temporary operations by applying water or magnesium chloride as dust suppression within 1000' of occupied residences on Weld County Road 66 and County Road 51, and on lease roads as necessary in cooperation with the county</p>
9	General Housekeeping	<p>COGCC Rule 604.c.(2)P. Removal of surface trash. 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.</p>

10	General Housekeeping	COGCC Rule 604.c.(2)T. Well site cleared. 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.
11	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.
12	Storm Water/Erosion Control	Stormwater BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. The location will be constructed to promote sheet-flow and infiltration. Topography and construction layout would allow the A30-01 location to be graded in a manner that diverts stormwater away from the irrigation/borrow ditches along County Road 66 and County Road 51 (North and East). Accordingly, the location will be constructed and graded to capture and divert stormwater into a temporary sediment trap with discharge points proposed to be on the east and south sides of the location (surface topography naturally slopes to the southeast). Additionally, the entire location, including sediment trap discharge point(s), will be surrounded by sediment wattles to ensure stormwater goes through two BMPs prior to surface discharge. At the conclusion of initial construction activities, the location will be seeded and mulched to promote long-term stabilization. Waddles will remain in place until the site has been stabilized, and the sediment trap will remain in place until construction is complete (when it will be reclaimed with the pad following drilling and well completion activities). Any future construction activities will preserve stabilized areas to the extent possible and employ BMPs in similar "treatment train" layouts.
13	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)K. Pit level indicators. Due to using a closed loop system pits will not be used.
14	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)N. Control of fire hazards. Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead. Any electrical equipment installations inside the offset area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado. Flammable liquids shall not be stored within fifty (50) feet of the wellbore, except for the fuel in the tanks of operating equipment or supply for injection pumps. Where terrain and location configuration do not permit maintaining this distance, additional equivalent safety measures will be taken. Per Operator's WOGLA application, the Platte Valley Fire Protection District (POC: Barry Schaefer 970-353-3890) will be contacted as local responder for control of fire hazards.
15	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.
16	Construction	COGCC Rule 604.c.(2)M. Fencing requirements. Unless otherwise requested by the Surface Owner, well sites constructed within the Designated Setback location will be fenced to restrict access by unauthorized persons.
17	Construction	COGCC Rule 604.c.(2)S. Access roads. 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. Operator plans on building the access road off of WCR 51 for Drilling and Completion activities.

18	Noise mitigation	<p>COGCC Rule 604.c.(2)A. Noise.</p> <p>Temporary operations – Baseline surveys will be completed at the residences to the Northeast 512'; Northwest 750' and 1088'; North 772', South 1101', and Southeast 1252' and 1314'. Engineered sound walls no less than 16' tall will be used along the northern, eastern and eastern sides for well pad A30-01 to mitigate noise impacts to these residences. Sound wall gaps will be strategically placed to adequately protect residences yet allow proper air-flow across the drill pad. The use of equipment specific sound walls will be used as necessary around rig generators in the event of sound impacts during operations.</p> <p>The rig will be oriented on the location so that the pieces of equipment that generate the highest noise levels will face away from the closest building unit owners. Additional sound mitigation such as interior free-standing walls and fit-for-purpose sound curtains will be installed around drilling and completions (frac) equipment to protect nearby building units, as needed.</p> <p style="text-align: right;">Water</p> <p>will be piped into location to reduce the noise associated with heavy-duty trucks.</p>
19	Emissions mitigation	<p>COGCC Rule 604.c.(2).C. Green Completions – Emission Control Systems.</p> <ul style="list-style-type: none"> • A modern production flowback method will be utilized at this location to reduce emissions: <ul style="list-style-type: none"> o This production flowback method will ensure oil and water is directed to a permanent production facility; o All Lines will be Pressure / Leak Tested Prior to Startup; o Operator will implement a gas detection and monitoring methodology at this location. This methodology will include OTIS 4-Gas Monitor and Detection System (LEL, H2S, CO, O2) on tanks and at various ground level locations. In addition to gas detection monitoring, 24/7 audible and visual monitoring will be conducted by onsite personnel during flowback operations. • A green completion equipment setup will be on location for Coil-Out/Drill-Out operations only. Flowback Equipment on-site is only to be utilized for upset conditions during Coil-Cleanout / Drill-Out phase of operations. No Equipment to be utilized for Production Flowback. • Flow lines, separators, and sand traps capable of supporting green completions as described in Rule 805 will be utilized at this Oil and Gas Location capable of accommodating commercial quantities of gas that are reasonably expected to be produced based on existing adjacent wells within 1 mile. • Temporary flowback flaring and oxidizing equipment shall include the following: <ul style="list-style-type: none"> o Adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten (10) mile radius; o Valves and porting available to divert gas to temporary equipment or to permanent flaring and oxidizing equipment; o Auxiliary fuel with sufficient supply and heat to sustain combustion or oxidation of the gas mixture when the mixture includes non-combustible gases.
20	Emissions mitigation	<p>Type: Produced Natural Gas</p> <p>Per natural gas produced from the well pad; Noble Energy intends to connect to a gas sales line at the first indication of salable quality gas. The sales line is in-place and during any emergency where the sales line is not operational, Operator would shut-in production</p>
21	Odor mitigation	<p>An alternative base fluid will be used for the oil-based mud (OBM) in a designated setback location. The alternative fluid has lower BTEX levels, is considered Non-Flammable or Combustible by OSHA/WHMIS criteria and is classified as a non-regulated material by the USDOT. More importantly, this alternative base fluid has a higher flash-point than normal diesel base fluid, which limits the odor causing vapor associated with OBM. Supplementary odor mitigation efforts would be used in response to landowner complaints. OBM is managed in a closed-tank system and OBM cuttings are containerized on-pad in three-sided high-walled steel bins, then mixed with clean dirt fill to reduce liquid content and odor, and hauled from the drill site on a daily basis.</p>
22	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)B. Closed Loop Drilling Systems – Pit Restrictions.</p> <p>Operator will utilize a closed-loop drilling system and commits that drilling system pits will not be used under this approval.</p>
23	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)O. Loadlines.</p> <p>All loadlines will be bullplugged or capped.</p>

24	Drilling/Completion Operations	COGCC Rule 604.c.(2)Q. Guy line anchors. 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.
25	Drilling/Completion Operations	Type: Freshwater MLVTs Per the June 13, 2014 COGCC Policy on the use of Modular Large Volume Tanks- Operator will have a 3rd-Party Operator construct, operate and monitor the freshwater MLVT structure. The Operator will have an MLVT Design Package, certified and sealed by a licensed PE, on file and available on request. The Operator will comply with all siting, construction, inspection and testing requirements specified in the Design Package and meeting COGCC Policy. Operation of the MLVT within 2,000 feet of a building unit will be shielded by engineered sound walls; this shielding would prevent any additional impacts that would need to be mitigated beyond currently committed BMPs for noise, light and dust impacts.
26	Drilling/Completion Operations	Operator will construct the A30-01 drill pad with 4-6" of clay and 3-5' of road-based cuttings. In addition to the road-based cuttings, Operator will use a 30-mill geosynthetic liner to underly the drill rig, cuttings and mud storage areas. All surficial activities performed by the operator during well drilling and completion activities will be protective of the environment. Bulk liquids used during D&C activities will be containerized in appropriate sealed vessels and underlain by an impervious liner and containment berm capable of containing any spill or leak from that vessel. Valves and temporary flow lines associated with D&C activities will be inspected daily for leaks while in service.

Total: 26 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402354668	ACCESS ROAD MAP
402354669	FACILITY LAYOUT DRAWING
402354670	LOCATION DRAWING
402354671	LOCATION PICTURES
402354672	HYDROLOGY MAP
402354682	MULTI-WELL PLAN
402354684	NRCS MAP UNIT DESC
402354685	OTHER
402354708	SITING RATIONALE
402387117	PRE-APPLICATION NOTIFICATION CERTIFICATION

Total Attach: 10 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.

