

FORM
2A

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:

400821632

(SUBMITTED)

Date Received:

06/01/2015

Oil and Gas Location Assessment

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

Submit signed original form. 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:

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: 1625 BROADWAY STE 2200

City: DENVER State: CO Zip: 80202

Contact Information

Name: Jan Kajiwara

Phone: (303) 228-4092

Fax: (303) 228-4286

email: jkajiwara@nobleenergyinc.com

RECLAMATION FINANCIAL ASSURANCE

- ☐ Plugging and Abandonment Bond Surety ID: 20030009 ☐ Gas Facility Surety ID: _____
- ☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Fagerberg Federal

Number: 112-655 Multi

County: WELD

QuarterQuarter: NWSW Section: 12 Township: 6N Range: 66W Meridian: 6 Ground Elevation: 4800

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: 1651 feet FSL from North or South section line

340 feet FWL from East or West section line

Latitude: 40.500100 Longitude: -104.733740

PDOP Reading: 2.0 Date of Measurement: 01/15/2015

Instrument Operator's Name: Adam Beauprez

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 #

FACILITIES

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

Wells	9	Oil Tanks*	30	Condensate Tanks*		Water Tanks*	20	Buried Produced Water Vaults*	6
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	6
Pump Jacks	9	Separators*	22	Injection Pumps*		Cavity Pumps*		Gas Compressors*	6
Gas or Diesel Motors*		Electric Motors		Electric Generators*	2	Fuel Tanks*		LACT Unit*	2
Dehydrator Units*		Vapor Recovery Unit*	3	VOC Combustor*	36	Flare*		Pigging Station*	1

OTHER FACILITIES*

Other Facility Type

Number

Blowcase	4
Gas Lift Meter Building	2
Heater Treater	1
Knock Out	4
Maintenance Tank	1
Meter Building	4
Meters	9
Oil Quality Skid Building	1
Sand Catchers	9
Scrubber	3
Vapor Recovery Towr (VRT)	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, one (1) 16" steel gas gathering line, one (1) 16" steel oil line, two (2) 2-4" steel gas lift line, one (1) 12" poly freshwater pipeline.

CONSTRUCTION

Date planned to commence construction: 07/01/2015

Size of disturbed area during construction in acres: 31.70

Estimated date that interim reclamation will begin: 10/01/2015

Size of location after interim reclamation in acres: 13.30

Estimated post-construction ground elevation: 4800

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? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: _____ or Document Number: 2614238

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Lynn Fagerberg & Leslie

Phone: _____

Address: Fagerber

Fax: _____

Address: 18271 Weld County Road 70

Email: _____

City: Eaton State: CO Zip: 80615

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 07/30/2014

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:	616 Feet	1706 Feet
Building Unit:	637 Feet	1759 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	327 Feet	117 Feet
Above Ground Utility:	367 Feet	157 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	340 Feet	76 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.

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: 01/30/2015

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 (onll 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: 47-OLNEY FINE SANDY LOAM, 1-3% SLOPES

NRCS Map Unit Name: 32-KIM LOAM, 1-3% SLOPES

NRCS Map Unit Name: 33-KIM LOAM, 3-5% 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: _____

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: _____ 25 Feet

water well: _____ 1350 Feet

Estimated depth to ground water at Oil and Gas Location _____ 30 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest water well depth to ground water was taken from Permit 9058412. This is a sensitive area due to the proximity to the Graham Seep Canal and other ditches.

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: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule _____ 318A

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)

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 Noble plans to place (6) 40,000 bbl temporary large volume above ground tanks on this location for approximately 120-days for the purpose of completing the associated pad wells and also to reduce the surface footprint. The MLVT Design Package and Noble Contingency Plan are available upon request. Note: the Manufacturer is Rockwater Energy Solutions. Attached is Noble's Operator Certification letter for the subject MLVT's.

- The outline around the MLVT's is not a berm it is just the pad outline.
- MLVT's will be greater than 500' from the Building Unit.
- The OTTOSON I12-12 (API 123-29234) well located to the east of the proposed FAGERBERG FEDERAL I12 PRODUCTION FACILITY is not located within the proposed production facility disturbance area. The OTTOSON I12-12 (API 123-29234) well is utilizing a tank battery (Facility ID 437653) located +/-1000' to the East.

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

Signed: _____ Date: 06/01/2015 Email: jkajiwara@nobleenergyinc.com

Print Name: Jan Kajiwara Title: Regulatory Analyst III

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: _____

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.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	COGCC Rule 604.c.(2)E. Multiwell Pads. Planning: <ul style="list-style-type: none">• This location includes 9 proposed wells and one production facility to reduce surface impact.
2	Planning	COGCC Rule 604.c.(2)I. BOPE testing for drilling operations. Planning: <ul style="list-style-type: none">• 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.

3	Planning	<p>COGCC Rule 604.c.(2)J. BOPE for well servicing operations.</p> <p>Planning:</p> <ul style="list-style-type: none"> • Adequate blowout prevention equipment shall be used on all well servicing operations. • 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.
4	Planning	<p>COGCC Rule 604.c.(2)L. Drill stem tests.</p> <p>Planning:</p> <ul style="list-style-type: none"> • Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director.
5	Planning	<p>COGCC Rule 604.c.(2)U. Identification of plugged and abandoned wells.</p> <p>Planning:</p> <ul style="list-style-type: none"> • 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.
6	Planning	<p>COGCC Rule 604.c.(2)V. Development from existing well pads.</p> <p>Planning:</p> <ul style="list-style-type: none"> • 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). If any operator asserts it is not possible to comply with, or requests relief from, this requirement, the matter shall be set for hearing by the Commission and relief granted as appropriate.
7	Planning	<p>COGCC Rule 604.c.(2)W. Site-specific measures.</p> <p>Planning:</p> <ul style="list-style-type: none"> • Earthen ditch and berm will be used around the drilling rig pads. Drill rig lights will be positioned facing down and light plants will be pointed away from Building Unit owners. The existing well located East of the proposed production facility will be barricaded during operations. Following temporary operations NEI will work with the residence to address any concerns they may have regarding the permanent facility. • A sound wall will be installed on the east side of the temporary access road from CR70 to mitigate visual impacts from vehicle headlights turning into location at night.
8	Planning	<ul style="list-style-type: none"> • A temporary sound wall is planned for the drill pad located closest to the residence. This wall will be located between the residence and the drill pad/MLVT pads. The wall will mitigate noise and light associated with the MLVT operations and will also divert a breach in the MLVT away from the residence. • Water will be used to mitigate any dust issues.
9	Traffic control	<p>COGCC Rule 604.c.(2)D. Traffic Plan.</p> <p>Traffic Control:</p> <p>If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.</p> <p>Temporary operations - Dust suppression (water trucks) will be used on the access roads and pads during construction, drilling, and completion activities.</p> <p>Unpaved surrounding county roads to be used will be stabilized with chemical treatment for dust mitigation.</p>

10	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.
11	General Housekeeping	COGCC Rule 604.c.(2)P. Removal of surface trash. General Housekeeping: <ul style="list-style-type: none"> • 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.
12	General Housekeeping	COGCC Rule 604.c.(2)T. Well site cleared. General Housekeeping: <ul style="list-style-type: none"> • 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.
13	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.
14	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.
15	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)F. Leak Detection Plan. Material Handling and Spill Prevention: <ul style="list-style-type: none"> • Noble Energy Inc. designs facilities to avoid releases and to be compliant with all regulations specific to leak detection and control (i.e. SPCC 40CFR112). Daily, monthly and annual inspections are performed at each facility to confirm operational integrity and regulatory compliance. Noble will perform maintenance if it is deemed necessary through any of the scheduled inspections. Automation technology is utilized to monitor any variations in pressures and fluid gauges which could indicate a leak.
16	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"> • Due to using a closed loop system pits will not be used.
17	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)N. Control of fire hazards. Material Handling and Spill Prevention: <ul style="list-style-type: none"> • Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.

18	Construction	<p>COGCC Rule 604.c.(2)G. Berm construction.</p> <p>Construction:</p> <ul style="list-style-type: none"> • Berms or other secondary containment devices in Designated Setback Locations shall be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for one-hundred fifty percent (150%) of the largest single tank. Berms or other secondary containment devices shall be sufficiently impervious to contain any spilled or released material. All berms and containment devices shall be inspected at regular intervals and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel. Refer to American Petroleum Institute Recommended Practices, API RP - D16.
19	Construction	<p>COGCC Rule 604.c.(2)M. Fencing requirements.</p> <p>Construction:</p> <ul style="list-style-type: none"> • Adequate fencing will be installed to comply with the fencing requirement. The landowner has requested to not use fencing around the location.
20	Construction	<p>COGCC Rule 604.c.(2)R. Tank specifications.</p> <p>Construction:</p> <ul style="list-style-type: none"> • All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). The operator shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule. This rule does not include later amendments to, or editions of, the NFPA Code 30. NFPA Code 30 may be examined at any state publication depository library. Upon request, the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203, will provide information about the publisher and the citation to the material.
21	Construction	<p>COGCC Rule 604.c.(2)S. Access roads.</p> <p>Construction:</p> <ul style="list-style-type: none"> • 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. NEI plans on building ingress and egress points off Weld County Road 70 for temporary operations and CR 35 for the permanent facility.

22	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> <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>
23	Noise mitigation	<p>COGCC Rule 604.c.(2)A. Noise.</p> <p>Noise Mitigation:</p> <ul style="list-style-type: none"> • Temporary operations – Baseline survey to be completed, engineered sound walls will be used along the edge of the pad positioned between the operations and the residence of concern. The use of equipment specific sound walls might be required around the rig generators in the event of sound impacts during operations. • Permanent facility - Additional permanent location/equipment sound mitigation will be determined following sound surveys performed after facility startup.
24	Emissions mitigation	<p>COGCC Rule 604.c.(2).C. Green Completions – Emission Control Systems.</p> <p>Emissions Mitigation:</p> <ul style="list-style-type: none"> • 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. • Uncontrolled venting shall be prohibited in an Urban Mitigation Area. • 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; and o Auxiliary fuel with sufficient supply and heat to sustain combustion or oxidation of the gas mixture when the mixture includes non-combustible gases.

25	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"> • Closed loop drilling systems are required within the Buffer Zone Setback. • 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. • 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. • 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&P waste, or flowback fluids are not allowed in fresh water storage pits. • Fresh water storage pits within the Buffer Zone Setback shall include emergency escape provisions for inadvertent human access.
26	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"> • Blowout prevention equipment for drilling operations in a Designated Setback Location shall consist of (at a minimum): <ul style="list-style-type: none"> o Rig with Kelly. Double ram with blind ram and pipe ram; annular preventer or a rotating head. o Rig without Kelly. Double ram with blind ram and pipe ram. <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>
27	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)O. Loadlines.</p> <p>Drilling/Completion Operations:</p> <ul style="list-style-type: none"> • All loadlines will be bullplugged or capped.
28	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)Q. Guy line anchors.</p> <p>Drilling/Completion Operations:</p> <ul style="list-style-type: none"> • 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.

Total: 28 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400821632	FORM 2A SUBMITTED
400844658	OTHER
400845376	ACCESS ROAD MAP
400845377	HYDROLOGY MAP
400845378	LOCATION DRAWING
400845380	LOCATION PICTURES
400845381	MULTI-WELL PLAN
400845385	FACILITY LAYOUT DRAWING
400845386	NRCS MAP UNIT DESC
400845387	WASTE MANAGEMENT PLAN
400845388	OTHER
400849286	SURFACE AGRMT/SURETY

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Retunred to draft. SUA not attached.	5/5/2015 8:33:08 AM
OGLA	Passed Buffer Zone completeness review	5/3/2015 8:53:40 AM
Permit	Referred to OGLA for Buffer Zone review.	5/2/2015 6:48:44 AM

Total: 3 comment(s)

