

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:

401069995

(SUBMITTED)

Date Received:

07/01/2016

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:

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: 10071

Name: BARRETT CORPORATION* BILL

Address: 1099 18TH ST STE 2300

City: DENVER State: CO Zip: 80202

Contact Information

Name: Matt Barber

Phone: (303) 312-8188

Fax: (303) 291-0420

email: mbarber@billbarrettcorp.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20040060

☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: CVR

Number: 5-63-32_33 NWSW

County: WELD

QuarterQuarter: NWSW Section: 32 Township: 5N Range: 63W Meridian: 6 Ground Elevation: 4582

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: 1482 feet FSL from North or South section line

230 feet FWL from East or West section line

Latitude: 40.352747 Longitude: -104.468622

PDOP Reading: 1.4 Date of Measurement: 05/05/2016

Instrument Operator's Name: Zane Bullard

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 #

Well Site is served by Production Facilities

332204

FACILITIES

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

Wells	6	Oil Tanks*		Condensate Tanks*		Water Tanks*		Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	6	Separators*	6	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*

Other Facility Type

Number

4" Flowlines	6
Gas Generator	1

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:

See pipeline and flowline counts above. When possible temporary water pipelines will carry water from storage tanks or water sources to well completion sites. Pipes will be made of flexible and rigid materials (plastic, aluminum and steel) generally 8" to 12" in diameter. The length will be determined by the distance to the well site to be serviced for the fracing operation. This will greatly minimize the number of truck trips required for the well completion. This location will have up to 20-500 bbl frac tanks. This location will also have up to 15-300 bbl temporary tanks for drilling operations.

CONSTRUCTION

Date planned to commence construction: 01/01/2017

Size of disturbed area during construction in acres: 5.32

Estimated date that interim reclamation will begin: 05/01/2017

Size of location after interim reclamation in acres: 1.47

Estimated post-construction ground elevation: 4581

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: Land application

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 441079 or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Centennial Valley Ranch L

Phone: _____

Address: 1331 17th Street, Suite 1000

Fax: _____

Address: _____

Email: _____

City: Denver State: CO Zip: 80202

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 _____

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:	<u>657</u> Feet	<u>533</u> Feet
Building Unit:	<u>912</u> Feet	<u>1000</u> 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

High Occupancy Building Unit:	<u>5280</u> Feet	<u>5280</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet	<u>5280</u> Feet
Public Road:	<u>221</u> Feet	<u>165</u> Feet
Above Ground Utility:	<u>261</u> Feet	<u>206</u> Feet
Railroad:	<u>5280</u> Feet	<u>5280</u> Feet
Property Line:	<u>230</u> Feet	<u>175</u> Feet

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: 07/07/2016

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 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: 41 Nunn clay loam, 0 to 1 percent slopes

NRCS Map Unit Name: _____

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: 867 Feet

water well: 2084 Feet

Estimated depth to ground water at Oil and Gas Location 45 Feet

Basis for depth to groundwater and sensitive area determination:

Depth to groundwater is based on the static water level from a nearby water well (permit#15932-R-)

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 zone:

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

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 The Building Unit Owner within the 1000' Buffer Zone has waived the Rule 305.a(2) Pre-Application Notification and the Rule 305.c(2) Buffer Zone Notification. Waiver of both is attached.

As noted within the BMPS included with this application, the only facilities to be on the well pad will be the wellheads, separators (which will be outside the 1000' buffer) and at some future point in time, pumping units. The production facilities (i.e., tanks, VRUs, etc.) for this location will be placed on the existing CVR production facility to the north. Hwy 34 lies between this proposed well pad and the building unit owner within the buffer zone. The existing well pad could not be utilized to re-occupy due to reach limitations.

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

Signed: _____ Date: 07/01/2016 Email: mbarber@billbarrettcorp.com

Print Name: Matt Barber

Title: Senior Permit Analyst

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.

COA Type

Description

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Best Management Practices

No BMP/COA Type

Description

1	Planning	COGCC Rule 604.c.(2)E.: Multi-well Pads This location is a multiwell pad that will include up to 7 wells. The production facility is existing and is greater than 1000' from the Building Unit.
2	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)N.: Control of Fire Hazards Materials not in use will be kept a minimum of 25' from wellhead, tanks and separator. All electrical installations will be done in accordance with current NEC and API RP 500.
3	Planning	COGCC Rule 604.c.(2)O: Loadlines shall be bullplugged or capped.
4	Construction	COGCC Rule 604.c.(2)S.: Access Roads The majority of this access is existing with approximately 70' additional lease road necessary for this pad. All leasehold roads have/will be constructed to accommodate local emergency vehicle access requirements, and shall be maintained in a reasonable condition.
5	Planning	COGCC Rule 604.c.(2)V.: Development from Existing Pads BBC plans on drilling and completing from multiple reservoirs on this pad.

6	Planning	COGCC Rule 604.c.(2)W.: No additional site specific measures are proposed.
7	Traffic control	COGCC Rule 604.c.(2)D.: Traffic Plan The road is existing and was built to access a BBC pad/production facility to the North. A traffic control plan was not required by CDOT and is not anticipated. Dust suppression (water trucks) will be utilized as necessary
8	Construction	COGCC Rule 604.c.(2)M.: Fencing Requirements This pad is located on agricultural lands. Per Surface Owner request, no fencing will be installed.
9	General Housekeeping	COGCC Rule 604.c.(2)P: Trash would be contained in a trash cage or dumpster and hauled away to an approved disposal.
10	Storm Water/Erosion Control	<p>STORM WATER AND SPILL CONTROL PRACTICES</p> <p>GENERAL</p> <ul style="list-style-type: none"> Utilize diking and other forms of containment and diversions around tanks, drums, chemicals, liquids, pits, impoundments, or well pads. Alternatively secondary containment may be provided around the entire perimeter of the location when containment structures are not feasible in immediate vicinity of storage vessels. Use drip pans, sumps, or liners where appropriate Limit the amount of land disturbed during construction of pad, access road, and facilities Employ spill response plan (SPCC) for all facilities Dispose properly offsite any wastes fluids and other materials <p>MATERIAL HANDLING, ACTIVITIES, PRACTICES AND STORM WATER DIVERSION</p> <ul style="list-style-type: none"> Secondary containment of tanks, drums, and storage areas is mandatory to prohibit discharges to surface waters. A minimum of 110% capacity required of largest storage tank within a containment area Material handling and spill prevention procedures and practices will be followed to help prohibit discharges to surface waters Proper loading, and transportation procedures to be followed for all materials to and from locations <p>EROSION CONTROL</p> <ul style="list-style-type: none"> Pad and access road to be designed to minimize erosion Pad and access road to implement appropriate erosion control devices where necessary to minimize erosion Routine inspections of sites and controls to be implemented with additions, repairs, and optimization to occur as necessary to minimize erosion <p>SELF INSPECTION, MAINTENANCE, AND HOUSEKEEPING</p> <ul style="list-style-type: none"> All employees are trained in spill response, good housekeeping, material management practices, and procedures for equipment and container washing annually Conduct internal storm water inspections per applicable stormwater regulations Conduct routine informal inspections of all tanks and storage facilities at least weekly All containment areas are to be inspected weekly or following a heavy rain event. Any excessive precipitation accumulation within containment should be removed as appropriate and disposed of properly All structural berms, dikes, and containment will be inspected periodically to ensure they are operating correctly <p>SPILL RESPONSE Spill response procedures as per the BBC field SPCC Plan</p>

11	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)F.: Leak Detection Plan -Employ a spill response plan (SPCC) for all facilities. -Conduct routine informal inspections of all tanks and storage facilities at least weekly. -Tank batteries would be placed within secondary containment consisting of corrugated steel containment rings and sized to provide containment for 150% of the largest single tank.
12	Construction	COGCC Rule 604.c.(2)G.: Berm Construction Berms to be constructed to sufficiently contain and provide secondary containment for 150% of the largest tank with inspections to occur at regular intervals to ensure compliance with rule requirements.
13	Construction	COGCC Rule 604.c.(2)R.: Tank Specifications Tanks will meet NFPA standards.
14	Noise mitigation	COGCC Rule 604.c.(2)A.: Noise Hwy 34 lies between the Building Unit and the proposed well pad location. The Surface Owner is not requesting any additional noise mitigation due to the proximity of Hwy 34.
15	Drilling/Completion Operations	BBC GENERAL PRACTICES NOTIFICATIONS <ul style="list-style-type: none"> Proper notifications required by COGCC regulations or policy memos will be adhered to CUTTINGS/TEMPORARY FRAC TANKS <ul style="list-style-type: none"> Drill cuttings will be hauled to an approved spread field or waste disposal facility. Flowback and stimulation fluids from the wells being completed will be sent to tanks and/or filters to allow the sand to settle out before the fluids are hauled to a state approved disposal facility. Temporary frac tanks installed on location will have proper secondary containment according to SPCC regulations such as either putting a perimeter berm around location or around the frac tanks. VEHICLE & LOCATION PROCEDURES <ul style="list-style-type: none"> Vehicles entering location are to be free of chemical, oil, mud, weeds, trash, and debris Location to be treated to kill weeds and bladed when necessary
16	Drilling/Completion Operations	COGCC Rule 604.c.(2)B.: Closed Loop Drilling System A closed loop drilling system will be utilized. Pits are not planned.
17	Drilling/Completion Operations	COGCC Rule 604.c.(2)C.: Green Completions During flowback operations wells will flowback to open top tanks during drillout until sufficient gas pressure is present to allow proper operation of a 3-phase separator. At such time, wells will flowback directly to production facilities.
18	Drilling/Completion Operations	COGCC Rule 604.c.(2)H.: BOPE BOP equipment will be utilized as per requirements (at a minimum): i. Rig with Kelly. Double ram with blind ram and pipe ram; annular preventer or a rotating head. ii. Rig without Kelly. Double ram with blind ram and pipe ram. 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.

19	Drilling/Completion Operations	COGCC Rule 604.c.(2)I.: BOPE Testing/Drilling Operations Adequate testing will be conducted as per rule requirements. 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.
20	Drilling/Completion Operations	COGCC Rule 604.c.(2)J.: BOPE/Well Serving Operations Adequate equipment will be utilized as per rule requirements. i. Adequate blowout prevention equipment shall be used on all well servicing operations. ii. 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.
21	Material Handling and Spill Prevention	COGCC Rule 604.c.(2)K.: Pit Level Indicators No pits are planned for this location.
22	Drilling/Completion Operations	COGCC Rule 604.c.(2)L.: Drill Stem Tests Drill stem tests are not anticipated.
23	Drilling/Completion Operations	COGCC Rule 604.c.(2)Q.: Guy Line Anchors BBC will utilized rig(s) with a base beam. Guy line anchors will not be utilized.
24	Final Reclamation	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.
25	Final Reclamation	COGCC Rule 604.c.(2)T.: Identification of P&Ad Wells BBC to follow Rule 319a(5), ensuring to place a permanent monument upon completion of the P&A that includes the well number and date of plugging.

Total: 25 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401069995	FORM 2A SUBMITTED
401072086	ACCESS ROAD MAP
401072089	HYDROLOGY MAP
401072090	NRCS MAP UNIT DESC
401072091	SURFACE AGRMT/SURETY
401072092	WASTE MANAGEMENT PLAN
401078633	RULE 305A CERTIFICATION OF COMPLIANCE
401078873	LOCATION DRAWING
401078880	FACILITY LAYOUT DRAWING
401078881	MULTI-WELL PLAN
401078882	LOCATION PICTURES

Total Attach: 11 Files

General Comments

User Group

Comment

Comment Date

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Total: 0 comment(s)

