

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:

400578505

Date Received:

03/28/2014

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:

436885

Expiration Date:

04/20/2017

☒ 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: Mary Pobuda

Phone: (303) 312-8511

Fax: (303) 291-0420

email: mpobuda@billbarrettcorp.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20040060 ☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Ruh Number: 6-62-11_14 NWNE

County: WELD

QuarterQuarter: NWNE Section: 11 Township: 6N Range: 62W Meridian: 6 Ground Elevation: 4748

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: 250 feet FNL from North or South section line

1809 feet FEL from East or West section line

Latitude: 40.508175 Longitude: -104.286333

PDOP Reading: 1.5 Date of Measurement: 01/16/2014

Instrument Operator's Name: Dave Swanson

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)

400578469

FACILITIES

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

Wells	4	Oil Tanks	10	Condensate Tanks		Water Tanks	2	Buried Produced Water Vaults	
Drilling Pits		Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	2
Pump Jacks	4	Separators	7	Injection Pumps	2	Cavity Pumps			
Gas or Diesel Motors		Electric Motors	4	Electric Generators	2	Fuel Tanks		Gas Compressors	1
Dehydrator Units		Vapor Recovery Unit	1	VOC Combustor	3	Flare	1	LACT Unit	
								Pigging Station	1

OTHER FACILITIES

Other Facility Type

Number

500-barrel frac tanks	10
Vapor Recovery Tower	1

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

4 Gas Pipelines (2" steel), 4 Water Pipelines (3" steel), 4 Oil Pipelines (3" steel), 4 Injection Pipelines (4" steel), 4 flowlines (4" steel). 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.

If the temporary large volume tanks are not used, we will use up to 110 500-barrel frac tanks.

CONSTRUCTION

Date planned to commence construction: 05/15/2014

Size of disturbed area during construction in acres: 11.20

Estimated date that interim reclamation will begin: 10/15/2014

Size of location after interim reclamation in acres: 2.60

Estimated post-construction ground elevation: 4747

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: Other

Other Disposal Description:

Cuttings from the vertical portion of the well(s) will be hauled to Krier Spread field. Cuttings from the lateral portion of the wellbore(s) will be hauled to a commercial disposal facility OR treated to meet table 910 standards then hauled to Krier.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 430225 or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: William & Margorie Ruh

Phone: _____

Address: 35484 CR 83

Fax: _____

Address: _____

Email: _____

City: Briggsdale State: CO Zip: 80611

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

Distance to nearest:

Building: 1603 Feet
Building Unit: 1609 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 1420 Feet
Above Ground Utility: 1450 Feet
Railroad: 5280 Feet
Property Line: 250 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.

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: _____

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: 6- Ascalon sandy loam 3-5% 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: 4500 Feet

water well: 1665 Feet

Estimated depth to ground water at Oil and Gas Location 93 Feet

Basis for depth to groundwater and sensitive area determination:

static water level of nearby water well (permit#202633)

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: _____

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

EOG assigned all leasehold and agreements to BBC effective 4/1/2012. A copy of this assignment is available upon request. The LVST's on this pad may possibly be used for completion operations at a nearby location. All surface owner agreements for water lines will be obtained. Frac tanks located on this pad may service completion operations being conducted on an adjacent pad location. A sundry would be submitted in the event this situation occurs. Surface owner approval would be obtained where necessary.

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

Signed: _____ Date: 03/28/2014 Email: mpobuda@billbarrettcorp.com

Print Name: Mary Pobuda Title: 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: 4/21/2014

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

	MLVTs shall be operated with a minimum of 1 foot freeboard.
	Operator shall be onsite and inspect for leaks during the initial filling of the MLVT. If leaks are observed, filling shall cease and the leaks be repaired and the integrity of the tank evaluated.
	Once in operation, the MLVT shall be inspected daily and any deficiencies repaired as soon as practicable.
	All MLVT liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. Liners shall not be reused.
	MLVTs may only be utilized for the storage of freshwater. E&P wastes, including produced water, treated E&P wastes, and flowback from hydraulic fracturing operations, are not allowed.
	Signs shall be posted on the MLVT to indicate contents are freshwater and that no E&P waste fluids are allowed. Location and additional signage shall conform to Rule 210.
	Access to the MLVT shall be limited to operational personnel.
	Operators employing MLVTs on their Oil & Gas Locations shall develop and comply with a written standard operating procedure.
	Site preparation and MLVT installation oversight shall be provided by a manufacturer representative either designated or otherwise certified to affirm that the site preparation and MLVT installation was completed in accordance with design specifications. Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications.
	COGCC Rules 604.a. and 605.a.(2,3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of MLVTs.
	MLVTs shall be constructed and operated in accordance with a design certified and sealed by a Colorado Licensed Professional Engineer.
	Should a failure of MLVT integrity occur, operator shall notify COGCC upon discovery, report the incident to COGCC on a Form 22-Accident Report within 10 days, and shall conduct a root cause analysis and provide it to the COGCC on a Form 4-Sundry Notice within 30 days of the failure.

Best Management Practices

No	BMP/COA Type	Description
1	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> <p>VEHICLE & LOCATION PROCEDURES</p> <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

2	Drilling/Completion Operations	<p>BBC GENERAL PRACTICES</p> <p>NOTIFICATIONS</p> <ul style="list-style-type: none"> • Proper notifications required by COGCC regulations or policy memos will be adhered to <p>TRENCHES/PITS/TEMPORARY FRAC TANKS</p> <ul style="list-style-type: none"> • Unlined pits will not be constructed. • Drill cuttings will either be hauled to an approved spread field or waste disposal facility or will be treated and disposed of onsite. Disposal methods will comply with COGCC regulations. • 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.
3	Drilling/Completion Operations	<p>Large Volume Above Ground Storage Tanks:</p> <p>BBC will be utilizing two 40,000 bbls tanks provided by Well Water Solutions. The tanks are approximately 156 feet in diameter and 12 feet tall. Well Water Solution's tanks are manufactured in accordance with designs and specifications that have been reviewed and certified by a Professional Engineer. The tanks will be erected by Well Water Solutions or a contractor authorized by Well Water Solutions to set up their tanks. The tanks will be filled with fresh water obtained from local fresh water sources. The tanks will be placed within the perimeter berm that will be constructed around the entire pad.</p> <p>The tanks will be placed on cut only. We also bring in dirt and create a solid, flat, and level area for the tank to sit on before the vender starts work on the tank. Then the vender digs a small trench and lays down a geo pad before starting to assemble the tank.</p> <p>During initial pad construction, compactors are utilized along with wetting of soil while compacting. This is standard BBC procedure. Also all fittings and flow lines are schedule 80 (2400 psi WP) along with all connections being welded. Tanks will be placed on a bed of sand with a 36 mil synthetic liner that is attached to 3' corrugated containment.</p> <p>The tank(s) will be on location for approximately 1 month.</p> <p>Freshwater will be obtained from Bluewater Resources Depot in Windsor, CO; an industrial water depot.</p> <p>Please see diagrams and contingency plan attached.</p>

Total: 3 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668274	CORRESPONDENCE
400578505	FORM 2A SUBMITTED
400580443	LOCATION DRAWING
400580444	ACCESS ROAD MAP
400580445	HYDROLOGY MAP
400580446	NRCS MAP UNIT DESC
400580447	WASTE MANAGEMENT PLAN
400580449	LOCATION PICTURES
400580452	MULTI-WELL PLAN
400580453	FACILITY LAYOUT DRAWING
400580454	OTHER
400580455	OTHER
400580457	SURFACE AGRMT/SURETY

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	No Public Comments. OGLA task passed.	4/21/2014 7:05:51 AM
OGLA	IN PROCESS - Operated provided updated pipeline description and a revised distance to the nearest property line. Operator also provided additional info concerning the use of the temporary large volume tanks and frac tanks for their completions operations. OGLA review complete. Waiting on Public Comment period.	4/9/2014 2:54:42 PM
Permit	Ready to pass Permit review.	4/7/2014 11:15:34 AM
OGLA	ON HOLD - Requested updated pipeline description and revise the distance to the nearest property line. Due by 5/3/14.	4/3/2014 10:54:42 AM
Permit	Oper. submitted comment about EOG assignment.	3/31/2014 2:04:56 PM
Permit	This form has passed completeness.	3/31/2014 1:55:26 PM
Permit	Returned to draft: 1) SUA between EOG & SO, no assignment. 2) lat/long does not match reference pt. on loc. drawing.	3/31/2014 10:09:00 AM

Total: 7 comment(s)