

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:

401133423

Date Received:

10/20/2016

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:

449383

Expiration Date:

02/26/2020

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: Hawkins Number: 5-61-20_19 SW21
 County: WELD
 Quarter: NWSW Section: 21 Township: 5N Range: 61W Meridian: 6 Ground Elevation: 4665

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: 2486 feet FSL from North or South section line
300 feet FWL from East or West section line

Latitude: 40.385989 Longitude: -104.222578

PDOP Reading: 1.3 Date of Measurement: 09/13/2016

Instrument Operator's Name: GREG WEIMER, D.S.

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 # 433684 **FORM 2A DOC #** _____

Well Site is served by Production Facilities

FACILITIES

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

Wells	<u>4</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	_____
Pump Jacks	<u>4</u>	Separators*	<u>4</u>	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

6" Oil Flowline	<u>1</u>
4" Water Flowline	<u>1</u>
4" Injection Line	<u>1</u>
2" Swabline	<u>1</u>
Temporary Gas Generator	<u>1</u>
4" Gas Gathering Line	<u>1</u>

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 120-500 bbl frac tanks. 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. This location will also have up to 15-300 bbl temporary tanks for drilling operations.

CONSTRUCTION

Date planned to commence construction: 01/31/2017 Size of disturbed area during construction in acres: 4.83

Estimated date that interim reclamation will begin: 09/03/2017 Size of location after interim reclamation in acres: 0.88

Estimated post-construction ground elevation: 4665

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: ONSITE 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: Joseph J. Hawkins

Phone: _____

Address: P.O. Box 24

Fax: _____

Address: _____

Email: _____

City: Orchard State: CO Zip: 80649

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: No

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:	3102 Feet	2971 Feet
Building Unit:	3371 Feet	3241 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	281 Feet	210 Feet
Above Ground Utility:	328 Feet	256 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	300 Feet	228 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

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: _____

- 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.

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

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

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

SOIL

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

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

NRCS Map Unit Name: 63—Terry fine sandy loam, 3 to 9 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: 08/19/2016

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, Chokeycherry)
- 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: 5280 Feet

water well: 2532 Feet

Estimated depth to ground water at Oil and Gas Location 150 Feet

Basis for depth to groundwater and sensitive area determination:

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: No

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 A temporary road access will be constructed for drilling and completion operations and will be reclaimed. The permanent access road will be constructed and utilized. Both access roads are illustrated on the access road map and layout drawing sheet.
The surface owner has signed a waiver for the beneficial use of mud and cuttings onsite.

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

Signed: _____ Date: 10/20/2016 Email: mbarber@billbarrettcorp.com

Print Name: Matt Barber Title: Sr. 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: Matthew Lee Director of COGCC Date: 2/27/2017

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	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</p> <p>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"> • 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.

Total: 2 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1009838	Waste Management Plan
1010180	SURFACE OWNER AGREEMENT
401133423	FORM 2A SUBMITTED
401133772	LOCATION DRAWING
401133773	ACCESS ROAD MAP
401133780	HYDROLOGY MAP
401133781	NRCS MAP UNIT DESC
401133783	LOCATION PICTURES
401133785	REFERENCE AREA MAP
401133786	REFERENCE AREA PICTURES
401133792	MULTI-WELL PLAN
401133804	WASTE MANAGEMENT PLAN
401138843	SURFACE AGRMT/SURETY

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Form changed to IN PROCESS and new Waste Management Plan uploaded.	02/27/2017
OGLA	Operator provided updated Waste Management Plan for on-site application of cuttings for beneficial reuse. The sample density is increased from one composite sample per acre to four composite samples per acre. Based on the potential for Nibrara and Codell cuttings to have elevated petroleum concentrations and the historical challenges in reducing TPH concentrations below Table 910-1 in a timely manner, COGCC has determined that a minimum of four samples per acre is necessary to comply with COGCC Rule 910.b.(3)A. This rule requires collection and analysis of representative soil samples. Reduced sampling density at future locations may be appropriate based on sample results.	02/27/2017
OGLA	Awaiting modified WMP.	02/23/2017
Permit	Final Review Completed.	02/09/2017
OGLA	Per Operator request, added 1 gas generator to the facilities list.	02/08/2017
Permit	Permitting Review Complete.	02/08/2017
OGLA	Changed Estimated Depth to Groundwater to 150 feet based on the static water level reported on the DWR well report. Changed the distance to the nearest surface water feature to 5280 feet as it is over 1 mile away. Unchecked the State floodplain box as the COGIS (State) floodplain maps are the FEMA (Federal) floodplain maps. Operator concurrence via telephone call - 01/24/2017	01/19/2017
OGLA	Changed the distance from the well to the nearest building and building unit to 3102 feet and 3371 feet, respectively, based on the distances provided on Form 2 (Document #401132576), the APD for the well closest to the building and building unit. Operator concurrence via telephone call - 01/24/2017	01/19/2017
LGD	Oil and Gas Exploration and Production activities are currently considered a Use by Right in the Agricultural Zoned District and no land use permitting is required by the County. A building permit is required for the production facilities (tank battery, separators, pump jacks, compressors, etc.) from the Department of Planning Services. Access points from a County road require an Access Permit, which include any necessary traffic controls and Improvement Agreements. The use of a County right-of-way requires a Right-Of-Way Permit from the Department of Public Works. Troy Swain, Weld Oil/Gas Liaison and LGD (970) 400-3579.	11/07/2016
Permit	Passes completeness.	11/02/2016
Permit	Returned to Draft: * Need SUA in Attachments.	10/28/2016

Total: 11 comment(s)