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

Oil and Gas Location Assessment

Document Number: 400504471

Date Received: 10/29/2013

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 432385

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: **432385**

Expiration Date: **11/28/2016**

☒ 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: Venessa Langmacher
Phone: (303) 312-8172
Fax: (303) 291-0420
email: vlangmacher@billbarrettcorp.com

RECLAMATION FINANCIAL ASSURANCE

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

LOCATION IDENTIFICATION

Name: Pappenheim SW Number: 6-62-23
County: WELD

QuarterQuarter: SWSW Section: 23 Township: 6N Range: 62W Meridian: 6 Ground Elevation: 4735

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: 225 feet FSL from North or South section line
335 feet FWL from East or West section line

Latitude: 40.466360 Longitude: -104.297420

PDOP Reading: 1.4 Date of Measurement: 02/07/2013

Instrument Operator's Name: Wyatt Hall

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	2	Oil Tanks	4	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	
Pump Jacks	2	Separators	2	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors	1	Electric Motors	2	Electric Generators		Fuel Tanks		Gas Compressors	1
Dehydrator Units		Vapor Recovery Unit		VOC Combustor	2	Flare	1	LACT Unit	
								Pigging Station	

OTHER FACILITIES

Other Facility Type	Number

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

One gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter would be installed. Pipelines would be constructed of steel, polyethylene or fiberglass.

CONSTRUCTION

Date planned to commence construction: 11/01/2014 Size of disturbed area during construction in acres: 4.80

Estimated date that interim reclamation will begin: 06/01/2014 Size of location after interim reclamation in acres: 1.72

Estimated post-construction ground elevation: 4735

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H_2S 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?

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Land application

Cutting Disposal: Cuttings Disposal Method:

Other Disposal Description:

Mud and Cuttings will be hauled to Krier Spreadfield

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Phone:

Address: _____ Fax: _____

Address: _____ Email: _____

City: _____ State: _____ Zip: _____

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: _____

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:	1724	Feet
Building Unit:	1724	Feet
High Occupancy Building Unit:	5280	Feet
Designated Outside Activity Area:	5280	Feet
Public Road:	1689	Feet
Above Ground Utility:	1953	Feet
Railroad:	5280	Feet
Property Line:	225	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 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: 74; Vona Loamy Sand: 5-9% 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: 02/07/2013

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: 6145 Feet

water well: 255 Feet

Estimated depth to ground water at Oil and Gas Location 105 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:

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule

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: This amendment is being filed to change the name from Pappenheim 6-62-26-8H to Pappenheim SW 6-62-23 since this pad will now serve multiple wells and also to update the facilities. The facilities listed is a total number of facilities that will be on location including what is existing. There will be no new disturbance. Attached please find the addition of a multi well plan and an updated facility layout; all other attachments are the same as previously approved.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.
Signed: _____ Date: 10/29/2013 Email: vlangmacher@billbarrettcorp.com

Print Name: Venessa Langmacher 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: 11/29/2013

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
	Operators or their designated representatives shall conduct regular visual inspections of the exterior wall and general area for any integrity deficiencies. These inspections will be recorded and maintained for a period of at least 5 years per Rule 205. Inspection records shall be provided to the COGCC upon request.
	TLVSTs will be brought into service incrementally, by loading to 25%, 50%, 75%, and 100% capacity (subject to freeboard) and held at each level without leaks for 24-hours prior to increasing load.
	Should a failure of TLVST 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 COGCC on a Form 4-Sundry Notice within 30 days of the failure.
	Signs shall be posted on each TLVST to indicate contents are freshwater and that no E&P waste fluids are allowed. Location and additional signage shall conform to Rule 210
	Operator shall develop a Contingency Plan for any TLVST leak or catastrophic failure of the tank integrity and resulting loss of fluid. The plan should include a notification process to the COGCC and local Emergency authority for any failure and resulting loss of fluid. The Contingency Plan shall be made available to the COGCC upon request.
	LVSTs may only be utilized for the storage of freshwater obtained legally from an adjudicated consumable water supply. E&P wastes, including treated E&P wastes and flowback during hydraulic fracturing operations, are not allowed.
	TLVSTs shall not be located on non-engineered fill material. If areas are to be graded and disturbed, the operator shall conduct such activity in accordance with COGCC Rules 1002.b. and 1002.c.
	Site preparation and installation oversight will be provided by a Professional Engineer or their designated representative.
	TLVSTs will be operated with a minimum of 1 foot freeboard.
	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 TLVSTs.
	All liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. If liners are re-used, liner installation shall be noticed on a Form 42 to COGCC 48-hours prior to installation. If liners are re-used, liner installation shall be noticed on a Form 42 to the COGCC 48-hours prior to installation.
	Access to the tanks shall be limited to operational personnel.

Best Management Practices

No	BMP/COA Type	Description
1	Storm Water/Erosion Control	STORM WATER AND SPILL CONTROL PRACTICES GENERAL • Utilize diking and other forms of containment and diversions around tanks, drums, chemicals, liquids, pits, impoundments, or well pads • 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 MATERIAL HANDLING, ACTIVITIES, PRACTICES AND STORM WATER DIVERSION • 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 EROSION CONTROL • 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 SELF INSPECTION, MAINTENANCE, AND HOUSEKEEPING • 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 SPILL RESPONSE • Spill response procedures as per the BBC field SPCC Plan VEHICLE & LOCATION PROCEDURES • 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	Large Volume Above Ground Storage Tanks: BBC will be utilizing 1 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. 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. 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. The tank(s) will be on location for approximately 1 month. Freshwater will be obtained from Bluewater Resources Depot in Windsor, CO; an industrial water depot.
3	Drilling/Completion Operations	NOTIFICATIONS • Proper notifications required by COGCC regulations or policy memos will be adhered to TRENCHES/PITS/TEMPORARY FRAC TANKS • Unlined pits will not be constructed on fill material. • Any free liquids accumulated in the containment would be removed and hauled to an approved waste disposal facility. Drill cuttings would either be hauled to an approved spread field or waste disposal facility or would be treated and disposed of onsite. Disposal methods would 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: 3 comment(s)

Attachment Check List

Att Doc Num	Name
1667917	CORRESPONDENCE
1667918	OTHER
400504471	FORM 2A SUBMITTED
400504498	FACILITY LAYOUT DRAWING
400504501	MULTI-WELL PLAN

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
Permit	No LGD or public comments. Final Review--passed.	11/26/2013 11:24:44 AM
OGLA	OGLA task passed.	11/20/2013 9:34:27 AM
OGLA	IN PROCESS - Operator provided Colorado PE stamped design drawings for the Temporary Large Volume Storage Tank (TLVST). OGLA review complete.	11/11/2013 12:56:14 PM
OGLA	ON HOLD - Requested Colorado PE stamped design drawings for the TLVST. Due by 12/11/13.	11/11/2013 11:23:36 AM
Permit	Passed completeness.	10/30/2013 2:22:07 PM

Total: 5 comment(s)