

State of Colorado
Oil and Gas Conservation Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

401535456

Date Received:

03/23/2018

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:

456859

Expiration Date:

08/24/2021☒ 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: 10656

Name: MORNING GUN EXPLORATION LLC

Address: 1601 ARAPAHOE ST

City: DENVER State: CO Zip: 80202

Contact Information

Name: Paul Flatley

Phone: (303) 4952626

Fax: ()

email: PFlatley@MorningGun.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20170040☐ Gas Facility Surety ID: _____☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Black Powder

Number: 2

County: WELD

QuarterQuarter: SESW Section: 10 Township: 7N Range: 63W Meridian: 6 Ground Elevation: 4838

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: 600 feet FSL from North or South section line

1900 feet FWL from East or West section line

Latitude: 40.583000 Longitude: -104.425100

PDOP Reading: 1.1 Date of Measurement: 02/06/2018

Instrument Operator's Name: Scott Estabrooks

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	<u>1</u>	Oil Tanks*	<u>4</u>	Condensate Tanks*	<u> </u>	Water Tanks*	<u>2</u>	Buried Produced Water Vaults*	<u> </u>
Drilling Pits	<u> </u>	Production Pits*	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits*	<u> </u>	Modular Large Volume Tanks	<u> </u>
Pump Jacks	<u> </u>	Separators*	<u>1</u>	Injection Pumps*	<u> </u>	Cavity Pumps*	<u> </u>	Gas Compressors*	<u> </u>
Gas or Diesel Motors*	<u> </u>	Electric Motors	<u> </u>	Electric Generators*	<u> </u>	Fuel Tanks*	<u> </u>	LACT Unit*	<u>1</u>
Dehydrator Units*	<u> </u>	Vapor Recovery Unit*	<u>1</u>	VOC Combustor*	<u>1</u>	Flare*	<u> </u>	Pigging Station*	<u> </u>

OTHER FACILITIES*

Other Facility Type

Number

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:

1 Flowlines 2" Steel, 5 Oil Lines 3" Steel, 1 Water Lines 3" Poly, 5 Gas Lines 3" Steel, 1 Gas Line 4" Steel.

CONSTRUCTION

Date planned to commence construction: 10/15/2018 Size of disturbed area during construction in acres: 5.90
Estimated date that interim reclamation will begin: 12/11/2018 Size of location after interim reclamation in acres: 1.30
Estimated post-construction ground elevation: 4383

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: Commercial Disposal
Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal
Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Morning Gun Exploration Phone: 7205455717

Address: 1601 Arapahoe Street

Fax: _____

Address: Box1

Email: PFlatley@MorningGun.com

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: applicant is owner

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:	3804 Feet	3554 Feet
Building Unit:	3955 Feet	3705 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	5280 Feet	5280 Feet
Above Ground Utility:	4268 Feet	4019 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	600 Feet	400 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.
- 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: _____

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: Vona loamy sand, 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: _____

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: 5280 Feet

water well: 3830 Feet

Estimated depth to ground water at Oil and Gas Location 85 Feet

Basis for depth to groundwater and sensitive area determination:

The nearest water well (Permit 252877---), located 3830' SW of the Black Powder 2 surface location, has a Perforated Casing top of 300' with no reported Static Water Level.

Therefore we looked at the nearest three wells to help determine an estimated depth to ground water. Those permits being as follows: 296026 - static water level of 85, 308086 - static water level of 110, and 308494 - static water level of 105. We choose an estimated depth to ground water as 85 that being the shallowest of the three nearest water wells that reported static water levels.

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: _____

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 _____

WILDLIFE

- ☐ This location is included in a Wildlife Mitigation Plan
- ☐ This location was subject to a pre-consultation meeting with CPW held on _____

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

We do not anticipate that any salable gas will be produced from this well. Our target formation, the Lyons formation, historically does not produce any associated gas. Lyons wells drilled in the immediate area have not produced any associated gas at this time. If salable gas is produced we will reevaluate the needs for our facilities.

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

Signed: _____ Date: 03/23/2018 Email: ssmeltz@morninggun.com

Print Name: Stephen Smeltz Title: Regulatory

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: 8/25/2018

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	Traffic control	An access route from the county road to the proposed well site and facilities will be arranged. Required access road permits and agreements will be obtained before construction begins and any special requirements outlined by the municipality, operator or landowner will be followed. Emergency routes will be chosen prior to the commencement of operations and will be clearly marked and maintained throughout drilling activities.
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2	General Housekeeping	General 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 suitable offsite facilities according to Morning Gun Exploration's Waste Management plan. If spills occur cleanup will be implemented within 24-48 hours, as appropriate, to minimize any commingling of waste materials with storm water 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 will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly according to Morning Gun Exploration's Water Management plan.
3	General Housekeeping	Fencing Morning Gun Exploration may install appropriate fencing to restrict access by any unauthorized persons. This fencing may vary depending on site-specific situations, such as reasonable security, local government or surface owner concerns. Fencing will be properly noted on facility layout diagrams.
4	General Housekeeping	Fire Hazards Morning Gun Exploration constructs and operates facilities to meet state and API codes, as appropriate, including API RP 500 electrical classifications inside bermed areas. Any unused potentially flammable materials are moved a minimum distance of 25-feet from wellhead(s), tanks, and separator areas. In addition, Morning Gun Exploration places all load line receivers/valves inside secondary containment areas and/or in proper load line containment devices.
5	General Housekeeping	Trash All surface debris, trash, unusable scrap, or solid waste from the facility will be temporarily stored on location in a secure container and ultimately removed and disposed of in a legal manner.
6	Material Handling and Spill Prevention	Spill Prevention Control and Countermeasures (SPCC) plans will be in place to address any possible spills associated with Oil and Gas operations in the state of Colorado in accordance with CFR 112. Morning Gun Exploration shall provide a designated stowage area for dry bulk chemicals and miscellaneous fluids. The dry chemicals in the storage area shall be adequately protected to prevent contact with precipitation, shall be elevated above storm or standing water, and shall provide sufficient containment for liquid chemical storage to prevent release of spilled fluids from impacting soil, surface water or groundwater and will prevent the co-mingling of spilled fluids or chemicals with other E&P Waste in accordance with COGCC Rule 1002.f.(2)A. & B.
7	Material Handling and Spill Prevention	Berm Construction For this location, steel containment with sealed liners will be utilized at all storage facilities on this location. A minimum containment capacity of 150% of the single largest storage vessel inside the containment will be constructed around any liquids storage area. Tanks and all visible pipelines and valves et. will be informally inspected on a regular basis by company lease operators. Morning Gun Exploration conducts formal annual SPCC inspections, and formal site specific and random audits, by third-party consultants to inspect for general site conditions as well as condition of tanks, pipelines, and containment structures.

8	Material Handling and Spill Prevention	<p>Leak Detection</p> <p>Morning Gun Exploration designs its facilities to avoid leaks or releases and help detect leaks in an efficient manner to minimize potentials impacts. Tanks and all visible pipelines and valves etc. are informally inspected on a regular basis by lease operators. Morning Gun Exploration formally conducts annual SPCC inspections, and formal site specific and random audits, by third party consultants to inspect for general site conditions as well as conditions of tanks, pipelines, and containment structures. Lease operators and production staff will review production records, including volumes and pressures, to determine and detect irregularities. Upon detection of an irregularity that may indicate a potential release, the suspect equipment will be removed from service, isolated, and pressure tested and/or visually inspected for indications of a potential leak.</p>
9	Dust control	Dust control measures may include surface stabilization, or dust control with appropriate chemical or water applications.
10	Noise mitigation	<p>Light Mitigation</p> <p>Light sources will be directed downwards and away from occupied structures where possible. Once the drilling and completion rigs have left the site, there will be no permanently installed lighting on site.</p>
11	Noise mitigation	Morning Gun Exploration will operate in accordance with permissible noise levels per COGCC Rule 604.c.(2)A. and 802, as applicable. Where possible, drilling equipment engine exhaust will be directed away from occupied buildings to assist with noise mitigation. These practices will be implanted upon initiation of drilling.
12	Odor mitigation	Whenever possible, drilling equipment engine exhaust will be directed away from occupied buildings to assist in mitigating potential odors. Sealed tanks with pressure relief valves and emissions controls will be utilized for the production phase. If Morning Gun Exploration receives complaints and it is determined that odors are caused by drilling fluid a neutralizing agent or similar product will be added to the mud system to eliminate the odor. Similar products have been used by other operators in the DJ Basin, which have successfully reduced odor attributed to drilling fluids.
13	Drilling/Completion Operations	<p>Closed Loop Mud System</p> <p>Morning Gun Exploration will be utilizing a closed loop drilling system.</p>
14	Drilling/Completion Operations	A BOPE with a minimum pressure rating of 3,000 psi will be utilized during drilling.
15	Drilling/Completion Operations	<p>Guy Line Anchors</p> <p>Morning Gun Exploration intends to use Base Beams to stabilize the rig. If Base Beams, are unavailable, Guy Line Anchors will be utilized. In the event guy line anchors are utilized and left buried for future use, they will be identified by a brightly colored marker at least 4 feet high, within 1 foot of the anchor.</p>
16	Drilling/Completion Operations	Access road agreements are currently being negotiated with the operator directly to the south of Morning Gun Exploration's lease. The current road and future roads are designed, constructed, and will be maintained for heavy equipment, including emergency response vehicles, to readily access and exit the location. The pad will have all weather access roads to allow for operator and emergency response.
17	Drilling/Completion Operations	There is a viable gas sales line that runs through this section. However, we do not anticipate that any salable gas will be produced from this well. If there is any gas produced, we will utilize a natural gas liquid stripping unit and associated facilities if practical to minimize emissions and the gas flare will be enclosed. If a gas sales line is not completed prior to 90 days of flaring, the well will be SI or a variance requested.
18	Final Reclamation	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.
19	Final Reclamation	<p>Identification of P&A Well</p> <p>Morning Gun Exploration will identify the location of the P&A 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. P&A wellbores shall be cutoff well below ground surface in agricultural areas to provide for landowners to safely farm the reclaimed well area.</p>

Total: 19 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401535456	FORM 2A SUBMITTED
401546499	LOCATION PICTURES
401546501	REFERENCE AREA MAP
401546513	ACCESS ROAD MAP
401546541	WASTE MANAGEMENT PLAN
401546545	NRCS MAP UNIT DESC
401546550	FACILITY LAYOUT DRAWING
401546555	CONST. LAYOUT DRAWINGS
401547268	LOCATION DRAWING
401584548	HYDROLOGY MAP

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Operator revised the date planned to commence construction.	08/21/2018
OGLA	Operator adding one VOC Combustor to the Facilities list.	08/17/2018
Final Review	ON HOLD - tank emissions control?	08/13/2018
Permit	Final review complete.	08/08/2018
Permit	Status Active - operator provided revised dates for construction/reclamation. - operator confirmed cultural distances; changes made on associated APD. Permitting review complete.	08/08/2018
Permit	Status Pending - contacted operator for corrections: - request revised construction/reclamation dates, as the construction date has lapsed. - cultural distances from WELL to nearest Building, Building Unit, Road, and Utility do not match the associated APD.	07/17/2018
OGLA	OGLA task passed.	04/23/2018
OGLA	OGLA review completed. Waiting on Public Comment period.	04/20/2018
LGD	This proposed oil and gas facility is located in the Agricultural Zoned District of unincorporated Weld County. A Weld Oil and Gas Location Assessment (WOGLA) is required prior to constructing any improvements related to oil and gas exploration and production and prior to the issuance of any building permits. A building permit is required for the production facilities (tank battery, separators, pump jacks, compressors, generators, etc.) from the Department of Planning Services. Access points from County roads require an Access Permit from the Department of Public Works, which includes any necessary traffic control plans and Improvement Agreements. The use of County right-of-way requires a permit from the Department of Public Works. Troy Swain, Weld Oil/Gas Liaison and LGD (970) 400-3579.	04/12/2018
Permit	Passed Completeness.	04/02/2018

Total: 10 comment(s)