

FORM
2A

Rev
08/19

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:

402245599

(SUBMITTED)

Date Received:

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: 10243

Name: GMT EXPLORATION COMPANY LLC

Address: 1560 BROADWAY STE 2000

City: DENVER State: CO Zip: 80202

Contact Information

Name: Whitney Lancaster

Phone: (303) 586 9289

Fax: ()

email: w.eberhardt@gmtexploration.com

FINANCIAL ASSURANCE

- ☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20070102 ☐ Gas Facility Surety ID (Rule 711): _____
- ☐ Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Crystal-Ruby

Number: Pad

County: ELBERT

Quarter: NESE Section: 22 Township: 6S Range: 65W Meridian: 6 Ground Elevation: 6178

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: 1932 feet FSL from North or South section line

838 feet FEL from East or West section line

Latitude: 39.512209 Longitude: -104.645752

PDOP Reading: 1.7 Date of Measurement: 04/25/2019

Instrument Operator's Name: Dominick Davis

LOCAL GOVERNMENT INFORMATION

County: ELBERT

Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County _____

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.

☐ Yes ☒ No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location. ☐

The local government siting permit type is: _____

The local government siting permit was filed on: _____

The disposition of the application filed with the local government is: Waived

Additional explanation of local process:

Elbert County waived right to precede.

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>20</u>	Oil Tanks*	<u>6</u>	Condensate Tanks*	<u>1</u>	Water Tanks*	<u>4</u>	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	<u>1</u>
Pump Jacks	_____	Separators*	<u>8</u>	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	<u>6</u>
Gas or Diesel Motors*	_____	Electric Motors	<u>1</u>	Electric Generators*	<u>2</u>	Fuel Tanks*	_____	LACT Unit*	<u>1</u>
Dehydrator Units*	_____	Vapor Recovery Unit*	<u>2</u>	VOC Combustor*	_____	Flare*	_____	Pigging Station*	_____

OTHER FACILITIES*

Other Facility Type

Number

Blowcases	2
ECD (2 Temporary)	4
Electric Pump	1
IA Skid	1
Knockouts	2
Maintenance Tank	1
NG Generators	2
Sales Gas Meters	4
Sand Catchers	20
Scrubbers	5
Vapor Recovery Towers	4

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:

Operator will trench flow lines in one ditch between the drill pad and the separator site and be placed at 12" centers. These lines will be either 2" or 3" fusion bonded SCH160 steel pipe with cathodic protection. All welds on these lines will be 100% x-rayed and hydro-tested to API standards and specs for a class 1500 series flange. They will also meet ASME code B31.4.

CONSTRUCTION

Date planned to commence construction: 06/01/2020 Size of disturbed area during construction in acres: 11.70
Estimated date that interim reclamation will begin: 12/01/2020 Size of location after interim reclamation in acres: 8.00
Estimated post-construction ground elevation: 6178

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? Yes

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?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Bill and Elaine Gabriel

Phone: Family Trust

Address: 44980 County Road 1

Fax:

Address:

Email:

City: Parker State: CO Zip: 80138

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

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s):

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

SUBMITTED

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:	883 Feet	825 Feet
Building Unit:	2084 Feet	1662 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	2564 Feet	2142 Feet
Above Ground Utility:	936 Feet	895 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	719 Feet	790 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? ☐ Yes ☒ No

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: 32 - Nunn clay loam, 0 to 4 percent slopes

NRCS Map Unit Name: 6 - Bresser sandy loam, cool, 5 to 9 percent 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: 04/25/2019

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: 37 Feet

water well: 799 Feet

Estimated depth to ground water at Oil and Gas Location 70 Feet

Basis for depth to groundwater and sensitive area determination:

Location is sensitive due to proximity to intermittent stream.
Depth to groundwater taken from water well permit #230548-A

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 609

WILDLIFE

☐ This location is included in a Wildlife Mitigation Plan

☐ This location was subject to a pre-consultation meeting with CPW held on _____

Operator Proposed Wildlife BMPs

No BMP

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 No Facility Layout required since no building units within 1000' buffer zone.
No Waste Management Plan required since no building units within 1000' buffer zone and not in GWA.
Grading Plan submitted as Construction Layout Drawing since pad location has sloped >10%.

MLVT Information:
Manufacturer: Hydrologistics
Count: One (1)
Size: 180' Diameter
Volume: 54,039 bbls
Estimated Time on Location: 5 Weeks

Location is not in buffer zone, but BMP's contain 604.(c) citations for standards that will still be met.

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

Signed: _____ Date: _____ Email: regulatory@ascentgeomatics.com

Print Name: Justin Garrett Title: Regulatory Analyst

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 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

Best Management Practices

No	BMP/COA Type	Description
1	Traffic control	Access Roads: Operator will comply with COGCC Rules 604 c (2) E, and 604 c (2) S. Access roads will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times.
2	General Housekeeping	General Housekeeping: 804. Visual Impacts: All long term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public. Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. The Pad Site will have unused equipment, trash, and junk removed immediately. The operator will maintain the surface area and access roads free of trash, debris, and noxious weeds.
3	General Housekeeping	General Housekeeping: 604.c.(2)P. Trash Removal: All trash, debris, and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.
4	Storm Water/Erosion Control	Storm Water/Erosion Control: Operator will implement and maintain Best Management Practices to control stormwater runoff in a manner that minimizes erosion, transport of sediment off-site, and site degradation. The operator will co-locate gas and water gathering pipelines whenever feasible and will mitigate any erosion problems that arise due to the construction of any pipelines. The SWMP in place will be in accordance with CDPHE General Permit Rules.

5	Material Handling and Spill Prevention	Control of fire hazards: 604.c.(2)N. Control of fire hazards: All material that is considered a fire hazard shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with API IRP 500 and will comply with the current national electrical code.
6	Material Handling and Spill Prevention	Control of fire hazards: 606A.d. Flammable liquids shall not be stored within fifty (50) feet of the wellbore, except for the fuel in the tanks of operating equipment or supply for injection pumps. Where terrain and location configuration do not permit maintaining this distance, equivalent safety measures should be taken.
7	Material Handling and Spill Prevention	604.c.(2)F. Leak Detention Plan: Pumper will visit the location daily and visually inspect all tanks and fittings for leaks.
8	Material Handling and Spill Prevention	SPCC control and counter measures plans will be in place to address construction, drilling, and operations associated with oil and gas development throughout the state of Colorado prior to any construction, drilling or operations related activity.
9	Material Handling and Spill Prevention	Material Handling and Spill Prevention: 604.c.(2)R Tank Specifications: Tanks will be designed, constructed, and maintained in accordance with NFPA Code 30. The tanks will be visually inspected once a day for issues, and recorded inspections will be conducted once a month.
10	Construction	<p>Operator will have an MLVT Design Package, certified and sealed by a licensed professional engineer, which is on file in their office and available upon request. The site shall be prepared in accordance with the specifications of the design package prior to tank installation; including ensuring that proper compaction requirements have been met.</p> <p>The MLVT will be at least 75 feet from a wellhead, fired vessel, heater-treater, or a compressor with a rating of 200 horsepower or more. It will be placed at least 50 feet from a separator, well test unit, or other non-fired equipment.</p> <p>All liner seams will be welded and tested in accordance with applicable ASTM international standards.</p> <p>Operator will be present during initial filling of the MLVT and the contractor will supervise and inspect the MLVT for leaks during filling.</p> <p>Operator will comply with the testing and re-inspection requirements and associated written standard operating procedures (SOP) listed on the design package. Signs will be posted on the MLVT indicating that the contents are freshwater. The MLVT will be operated with a minimum of 1 foot of freeboard at all times. Access to the MLVT will be limited to operational personnel and authorized regulatory agency personnel.</p> <p>Operator or contractor will conduct daily visual inspections of the exterior wall and surrounding area for integrity deficiencies.</p> <p>Operator will have a contingency plan/emergency response plan associated with the MLVT and it is on file at their office.</p> <p>A fabric reinforced liner will be utilized. In the event that a tank breach were to occur, the fabric reinforced liner will prevent a "zippering" failure from occurring. The liner will meet the specifications per the design package.</p> <p>Operator acknowledges and will comply with the Colorado Oil & Gas Conservation Commission Policy on the Use of Modular Large Volume Tanks in Colorado dated June 13, 2014.</p>
11	Construction	604.c.(3)B. Berm Construction. Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material.

12	Construction	604.c.(3)B. Berm Construction. Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material.
13	Construction	604.c.(2)M. Fencing: A meeting with the surface owner will determine a fencing plan. The location will be adequately fenced to restrict access by unauthorized persons.
14	Noise mitigation	Temporary operations – Baseline surveys will be completed at the pad. Sound walls or hay bales may be used to shield sensitive areas during drilling operations will be considered and implemented according to third-party recommendations.
15	Emissions mitigation	Green Completions - Emission Control System: Test separators and associated flow lines and sand traps shall be installed to accommodate green completions techniques according to COGCC Rules.
16	Odor mitigation	805. Oil & gas facilities and equipment shall be operated in such a manner that odors do not constitute a nuisance or hazard to public welfare. The operator will utilize advanced oil-based mud systems that target the reduction of aromatics.
17	Drilling/Completion Operations	604.c.(2)B.i Operator will be utilizing a closed loop system.
18	Drilling/Completion Operations	604.c.(2).O. All load lines will be bull plugged or capped.
19	Drilling/Completion Operations	604.c.(2).Q. All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.
20	Interim Reclamation	The operator shall be responsible for segregating the topsoil, backfilling, re-compacting, reseeding, and re-contouring the surface of any disturbed area so as not to interfere with the Owner's operations and shall reclaim such area to be returned to pre-existing conditions as best as possible with control of all noxious weeds.

Total: 20 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402245749	SURFACE AGRMT/SURETY
402245750	CONST. LAYOUT DRAWINGS
402245751	MULTI-WELL PLAN
402245752	ACCESS ROAD MAP
402245753	HYDROLOGY MAP
402245754	LOCATION DRAWING
402245755	LOCATION PICTURES
402245756	REFERENCE AREA MAP
402245758	REFERENCE AREA PICTURES
402245760	NRCS MAP UNIT DESC
402245762	NRCS MAP UNIT DESC

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

No public comments were received on this application during the comment period.

