

FORM  
2A

Rev  
06/19

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:

401806570

Date Received:

12/07/2018

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:

**466147**

Expiration Date:

**07/18/2022**

☒ 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: 35080

Name: GRAND MESA OPERATING CO

Address: 1700 N. WATERFRONT PKWY BL 600

City: WICHITA State: KS Zip: 67206

Contact Information

Name: MICHAEL REILLY

Phone: (316) 265-3000

Fax: (316) 265-3455

email: MREILLY@GMOCKS.COM

FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20020080 ☐ Gas Facility Surety ID (Rule 711): \_\_\_\_\_

☐ Waste Management Surety ID (Rule 704): \_\_\_\_\_

LOCATION IDENTIFICATION

Name: NANA UNIT Number: 1-16

County: LINCOLN

QuarterQuarter: SESE Section: 16 Township: 7S Range: 55W Meridian: 6 Ground Elevation: 5433

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: 986 feet FSL from North or South section line

328 feet FEL from East or West section line

Latitude: 39.435250 Longitude: -103.549240

PDOP Reading: 1.6 Date of Measurement: 10/17/2018

Instrument Operator's Name: ELIJAH FRANE-FRANE SURVEYING

LOCAL GOVERNMENT INFORMATION

County: LINCOLN 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 COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" 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: \_\_\_\_\_

Additional explanation of local process:

## 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>3</u>	Condensate Tanks*	_____	Water Tanks*	<u>1</u>	Buried Produced Water Vaults*	_____
Drilling Pits	<u>1</u>	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	<u>1</u>	Separators*	<u>1</u>	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	<u>1</u>	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	_____	Flare*	_____	Pigging Station*	_____

## OTHER FACILITIES\*

**Other Facility Type** **Number**

ECD	<u>1</u>
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\*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:

If this well is successful - a flowline from the well to the tank battery will be installed. One 3" poly pipe- pressurized 0-40# PSI and buried at least 4' below the ground surface. The tank battery will be used solely for the Nana Unit #1-16 well and will be located 1050' FSL and 105' FEL off of CR 28. We would like to include our tank battery inclusively with this 2A for our location on this well and we have provided a production layout drawing and pictures.

## CONSTRUCTION

Date planned to commence construction: 07/13/2019 Size of disturbed area during construction in acres: 5.75  
Estimated date that interim reclamation will begin: 01/13/2020 Size of location after interim reclamation in acres: 2.00  
Estimated post-construction ground elevation: 5433

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: No

Is H<sub>2</sub>S 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: UIC Disposal

Cutting Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Drilling fluids will be contained within aboveground tanks and disposed of at the Grand Mesa Buzz's Boat UIC Injection Well.  
Cuttings will be disposed of in the onsite drilling pit.

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: ROHRBAUGH INTERESTS LLLP Phone: 1-719-763-2256

Address: c/o Ed Rohrbaugh Fax: \_\_\_\_\_

Address: 29640 CO RD 3U Email: \_\_\_\_\_

City: GENOA State: CO Zip: 80818

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: oil and gas lease

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation 10/23/2018

## 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:	4430 Feet	4677 Feet
Building Unit:	4579 Feet	4811 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	328 Feet	50 Feet
Above Ground Utility:	328 Feet	50 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	328 Feet	50 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: Fort Collins-Platner Loams - Symbol 127 - Wellsite

NRCS Map Unit Name: Sampson Loam - Symbol 179 - Tank Battery Site

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: 15 Feet

water well: 3710 Feet

Estimated depth to ground water at Oil and Gas Location 18 Feet

Basis for depth to groundwater and sensitive area determination:

This well is located in a Sensitive area due to it being located in the Arikaree Designated Ground Water Mgmt area and the Northern High Plains Basin. Wtr well Permit #18573 (stock).

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: 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 609

## 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 There is an apparant surface water area approx 15' East of the proposed well pad The West ROW of CR 28 falls approx 44' East of the wellpad and the Betty Tank Battery Facility falls approx 127' East of the well pad. The only improvements that lie within the 500'-1000' buffer area of the wellsite are CR 28 and the Betty Tank Battery Facility.

BMP Plan  
Grand Mesa Operating, Co.  
1700 N Waterfront Pkwy, Bldg 600  
Wichita, KS 67206  
P - 316-265-3000 F - 316-265-3455

Certification of Discharge under CDPHE COR-030000  
Storm water discharges associated with construction permit number (Not yet assigned)

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

Signed: \_\_\_\_\_ Date: 12/07/2018 Email: MREILLY@GMOCKS.COM

Print Name: MICHAEL REILLY Title: President

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: 7/19/2019

**Surface Owner Information**

Owner Name	Address	Phone	Fax	Email
ROHRBAUGH INTERESTS LLLP	c/o Ed Rohrbaugh  29640 CO RD 3U  GENOA, CO 80818	1-719-763- 2256		
STATE BOARD OF LAND COMM	c/o Steve Freese  1127 SHERMAN ST., STE 300  DENVER, CO 80203	1-303-866- 3454		

2 Surface Owner(s)

**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**

	Operator shall confirm, through sampling and analysis, that the base of the pit and the cuttings to be buried in place meet the applicable standards of Table 910-1 prior to pit closure in accordance with 900 and 1000 series rules.
	In the event groundwater is encountered during the construction of the drilling pit, the Operator shall switch to the use of an aboveground tank or line the drilling pit.



## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Storm Water/Erosion Control	<p>Prior to construction, perimeter controls will be installed utilizing cutting from the clearing operations.</p> <p>Once the well pad has been constructed a variety of BMP's shall be utilized for the site specific conditions.</p> <p>BMP's to be utilized may include, but are not limited to:</p> <ul style="list-style-type: none"> <li>-Dirt berms</li> <li>-Erosion control blankets</li> <li>-Straw bale barrier</li> <li>-Straw wattle</li> <li>-Check dams</li> <li>-Culvert/Culvert Protection</li> <li>-Silt Fence</li> <li>-Surface roughening/Surface rip</li> </ul> <p>Storm Water Management Plan (SWMP) is on file in Grand Mesa Operating, Co office.</p> <p>Spill Prevention, Control and Countermeasure Plan is on file in Grand Mesa Operating, Co. office.</p> <p>Tertiary containment will be used along the cross- and down-gradient perimeters of the Location to prevent sediment/contaminant migration into the nearby drainage.</p>
2	Material Handling and Spill Prevention	<p>Production facilities will be constructed within lined secondary containment. The secondary containment will consist of an engineered lined tied into steel berms to prevent migration of contaminants into the underlying soils and groundwater in the event of a spill at the Location.</p>
3	Material Handling and Spill Prevention	<p>Pumper will visit the location daily and visually inspect all tanks and fittings for leaks.</p>

Total: 3 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1010693	OBJECTIVE CRITERIA REVIEW MEMO
401806570	FORM 2A SUBMITTED
401809754	UNIT CONFIGURATION MAP
401809755	ACCESS ROAD MAP
401809756	HYDROLOGY MAP
401809757	LOCATION DRAWING
401809758	FACILITY LAYOUT DRAWING
401809759	REFERENCE AREA MAP
401809760	REFERENCE AREA PICTURES
401809763	LOCATION PICTURES
401809766	LOCATION PICTURES
401809949	OTHER
401809952	NRCS MAP UNIT DESC

Total Attach: 13 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	<p>Location lies within an area having potential shallow groundwater. The closest water well having a reported static water level indicated groundwater located at 18 feet bgs. Further review of topography and geomorphology as well as discussions with the Operator indicated that groundwater may be slightly deeper at the Location.</p>	07/18/2019

OGLA	<p>During the review of the Form 2A, it was noted by the Operator that this reach of the Arikaree River contains Aquatic Habitat Recovery and Conservation Waters.</p> <p>Location lies outside of the 300-foot buffer from the riparian of the Aquatic Habitat Recovery and Conservation Waters of this reach of the Arikaree River.</p>	07/18/2019
Permit	Final Review Completed.	07/12/2019
Permit	<p>Entered the Local Government Information provided by the operator for related Form 2 (Doc # 401806551).</p> <p>Entered the School Setback Distances provided by the operator for related Form 2 (Doc # 401806551).</p>	07/12/2019
OGLA-181	The Objective Criteria Review Memo (Doc# 1010693) is attached to this Form 2A. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	07/12/2019
OGLA-181	COGCC staff conducted its technical review of this Form 2A Oil and Gas Location Assessment within the context of SB 19-181 and the required Objective Criteria. This Form 2A met Objective Criteria #5.c.	07/12/2019
OGLA	<p>Per Operator request, added the following BMPs:</p> <p>"Production facilities will be constructed within lined secondary containment. The secondary containment will consist of an engineered lined tied into steel berms to prevent migration of contaminants into the underlying soils and groundwater in the event of a spill at the Location.</p> <p>Tertiary containment will be used along the cross- and down-gradient perimeters of the Location to prevent sediment/contaminant migration into the nearby drainage.</p> <p>Pumper will visit the location daily and visually inspect all tanks and fittings for leaks."</p> <p>Per Operator request, changed the drilling waste management program.</p>	07/02/2019
OGLA	<p>Changed the acreage disturbed during construction to 5.75 based on the dimensions provided on the Location Drawing.</p> <p>FEMA floodplain maps are not currently available for this area. Review of the available data indicates that the location lies outside of the floodplain as determined by the local flood hazard data, NRCS Soil Map Unit Description, USGS topographic map and geomorphology as shown on the 2017 aerial photograph.</p>	06/27/2019
Permit	On hold per operator request.	12/12/2018
Permit	Passed completeness.	12/11/2018
CPW-Wildlife - Avoidance-AQUATIC SPECIES/AMP HIBIANS	<p>Operator proposed the following BMP:</p> <p>CPW commented as follows:  Aquatic habitat recovery and conservation waters are defined as lakes and river segments that contain species under management for population conservation and recovery. These species may include fish such as the Arkansas darter, brassy minnow, common shiner, flathead chub, plains minnow, northern and southern redbelly dace, Iowa darter, plains orangethroat darter, suckermouth minnow, and plains topminnow as well as amphibian species such as the northern leopard frog and plains leopard frog; all of which are state-listed as species of special concern, threatened, or endangered. CPW discourages drilling both within the river channel and associated</p>	Stamp Upon Approval

	sandbars, as impacts to riparian and wetland vegetation could occur as the developer accesses this site, as does the increased potential for water contamination. CPW recommends limiting development to upland areas away from drainages by incorporating a minimum RSO buffer or 300 ft. extending from the outermost limit of the riparian veg zone.	
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Total: 11 comment(s)