

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:

401826108

Date Received:

11/05/2018

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:

469320

Expiration Date:

11/19/2022

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: DADO Number: 1-21

County: LINCOLN

QuarterQuarter: SENE Section: 21 Township: 7S Range: 55W Meridian: 6 Ground Elevation: 5484

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: 1872 feet FNL from North or South section line

614 feet FEL from East or West section line

Latitude: 39.427390 Longitude: -103.550150

PDOP Reading: 1.6 Date of Measurement: 11/01/2018

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 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: _____

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 #
Production Facilities Location serves Well(s)	463813	_____
	467075	_____
	463810	_____
	463814	_____

FACILITIES

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

Wells	1	Oil Tanks*	15	Condensate Tanks*	_____	Water Tanks*	5	Buried Produced Water Vaults*	_____
Drilling Pits	1	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	1	Separators*	5	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	5	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	5

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:

We have attached a Tank Battery Exhibit. A flowline from the well to the tank battery will be installed and consist of one 3" poly pipe- pressurized to 0-40# PSI and buried at least 4' below the ground surface. The tank battery site will be used for the Dado #1-21,2-21,3-21,4-21 & 5-21.

CONSTRUCTION

Date planned to commence construction: 12/10/2019 Size of disturbed area during construction in acres: 5.74
Estimated date that interim reclamation will begin: 02/10/2020 Size of location after interim reclamation in acres: 2.00
Estimated post-construction ground elevation: 5484

DRILLING PROGRAM

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

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: UIC Disposal

Cutting Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Water-based bentonitic fluids will be removed and disposed of at GMOC-Class II UIC Disposal Buzzs Boat #14-UIC#160003, SESW 24-5S-54W, Washington County, CO.

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: PHYLLIS C. THOMPSON

Phone: 1-719-775-2438

Address: C/O TROY THOMPSON

Fax: _____

Address: 63860 CO RD 27

Email: _____

City: LIMON State: CO Zip: 80828

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 11/05/2018

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

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:	4321 Feet	4765 Feet
Building Unit:	4533 Feet	4946 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	614 Feet	15 Feet
Above Ground Utility:	4703 Feet	5135 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	614 Feet	15 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: WAGES KARVAL COMPLEX-SYMBOL 212 - WELLSITE

NRCS Map Unit Name: FORT COLLINS - SYMBOL 124 - 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: 11/01/2018

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: 307 Feet

water well: 2550 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 Management Area and the Northern High Plains Basin, is located within proximity to a drainage, and lies in an area of potential shallow groundwater. Depth to groundwater based on Water Well Permit #18573.

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 Floodplain determination based on soils review, topography, geomorphology and National Wetland Inventory review.

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 apparent surface water area (intermittent stream drainage) approx 307' West of the proposed well pad, a windmill exists approx 1975' Northwest of the well head and the West ROW of CR 28 falls approx 248' East of the well pad and a barbed wire fence falls approx 230' West of the well pad. The only improvements that lie within the 500'-1000' buffer area of the wellsite are the fence and CR 28.

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 Management Plan (SWMP) is on file in Grand Mesa Operating, Co office.
Spill Prevention, Control and Countermeasure Plan is on file in Grand Mesa Operating, Co. office.

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

Signed: _____ Date: 11/05/2018 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: 11/20/2019

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.

<u>COA Type</u>	<u>Description</u>
Material Handling and Spill Prevention	In the event that groundwater is encountered during the construction of the Drilling Pit, Operator shall switch to an above ground tank.

Best Management Practices

No	BMP/COA Type	Description
1	Storm Water/Erosion Control	<p>Prior to construction, stormwater controls will be installed around the cross- and down-gradient perimeters of the Location to prevent offsite migration of sediment/contaminant migration into the nearby surface water feature.</p> <p>Once the well pad has been constructed a variety of BMP's shall be utilized for the site specific conditions. BMP's to be utilized may include, but are not limited to:</p> <ul style="list-style-type: none"> -Dirt berms -Erosion control blankets -Straw bale barrier -Straw wattle -Check dams -Culvert/Culvert Protection -Silt Fence -Surface roughening/Surface rip
2	Material Handling and Spill Prevention	Operator will construct the production facilities within lined secondary containment consisting of steel ring berms tied into an engineered synthetic liner to prevent the migration of contaminant into the underlying soils and groundwater in the event of a spill.
3	Material Handling and Spill Prevention	Operator will construct the production facilities within lined secondary containment to prevent the offsite migration of contaminant into the nearby water feature in the event of a spill.

Total: 3 comment(s)

Attachment Check List

Att Doc Num	Name
1010748	LOCATION DRAWING
1010749	HYDROLOGY MAP
1010791	SURFACE USE AGREEMENT
1010796	ACCESS ROAD MAP
1010799	OBJECTIVE CRITERIA REVIEW MEMO
401826108	FORM 2A SUBMITTED
401826140	OTHER
401826146	NRCS MAP UNIT DESC
401826147	LOCATION PICTURES
401826149	LOCATION PICTURES
401826720	TANK BATTERY EXHIBIT

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Status Active - attached a revised SUA provided by operator. Final review complete.	11/15/2019
Final Review	Status Pending - referred to OGLA staff for additional review: - SUA is missing required operator signature.	11/14/2019
OGLA	The Objective Criteria Review Memo (Doc#1010799) 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.	10/31/2019
OGLA	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 and 8.	10/31/2019
OGLA	Uploaded modified Location Drawing and Hydrology Map. Modified the BMPs and moved the following to the Submit Tab: "Storm Water Management Plan (SWMP) is on file in Grand Mesa Operating, Co office. Spill Prevention, Control and Countermeasure Plan is on file in Grand Mesa Operating, Co. office." Per Operator uploaded the SUA.	10/08/2019
OGLA	Added the Related Remote Locations. Changed the distance to the nearest surface water feature to 307 feet based on the distance reported on the Hydrology Map Submitted by the Operator. Added the drainage and the shallow groundwater to the Sensitive Area Determination. Changed the floodplain information. Floodplain determination is based on local consultation, soils review, topography, geomorphology and National Wetland Inventory review. Changed the size of disturbance during construction to 5.74 and after interim reclamation to 2.00 based on the Location size depicted on the Location Drawing, the production facility layout attachment and discussions with the operator. Please verify the location of the aboveground utilities. - With operator concurrence, changed the distance to the nearest aboveground utility to 4703 feet from the well and to 5135 feet from the production facility. Production facility appears to be closer than 105 feet from the public road. Please verify. - Changed the distance from the production facility to the public road to 15 feet based on the tank battery attachment and discussions with the operator.	12/24/2018
Permit	Passed completeness.	11/15/2018

Total: 7 comment(s)