FORM 2A Rev 02/19

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Oil and Gas Location Assessment

Document Number: 401968859

Date Received: 03/15/2019

☒ 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: 10727

Name: MATHIS OIL AND GAS LLC

Address: 6300 E HAMPDEN AVE

City: DENVER State: CO Zip: 80222

Contact Information

Name: Aiden Durham

Phone: (720) 475-6429

Fax: ( )

email: info@mathisoil.com

FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20190038 ☐ Gas Facility Surety ID (Rule 711):

☐ Waste Management Surety ID (Rule 704):

LOCATION IDENTIFICATION

Name: Mathis Number: 6HZ Pad

County: WELD

QuarterQuarter: SENE Section: 6 Township: 2N Range: 67W Meridian: 6 Ground Elevation: 4843

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: 2595 feet FNL from North or South section line

230 feet FEL from East or West section line

Latitude: 40.168191 Longitude: -104.924334

PDOP Reading: 1.9 Date of Measurement: 02/19/2019

Instrument Operator's Name: Monty Wallace

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	12	Oil Tanks*	10	Condensate Tanks*		Water Tanks*	2	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	3	Injection Pumps*		Cavity Pumps*	2	Gas Compressors*	
Gas or Diesel Motors*		Electric Motors	12	Electric Generators*		Fuel Tanks*		LACT Unit*	3
Dehydrator Units*		Vapor Recovery Unit*	1	VOC Combustor*		Flare*	1	Pigging Station*	

OTHER FACILITIES*

Other Facility Type	Number
heater treater	1
pumps	12

*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:

Flowlines from each wellhead to the production manifold will be NPS 3, designed to API/ASME B31.3. These flowlines will be externally coated and buried from the wellhead area to the production manifold. They are expected to carry three-phase fluids from the wells. Oil leaving the facility will be by truck until the field is proven to LACT connect it. When LACT connected, the export pipeline is expected to be NPS 6 and will be built to API/ASME B31.4, and all feeder lines to the LACT will be designed to API/ASME B31.3. The line is expected to be a single phase hydrocarbon liquid line. Gas from the production operations enters the local existing DCP gathering system. The line from the production separators to the DCP system will be designed to API/ASME B31.3. The line from the LACT will be provided by DCP. This line is expected to be a single phase gas line. All piping on-lease will be designed to API/ASME B31.3 and will range in size from NPS 1 up to NPS 12.

CONSTRUCTION

Date planned to commence construction: 03/02/2020 Size of disturbed area during construction in acres: 6.15

Estimated date that interim reclamation will begin: 09/02/2020 Size of location after interim reclamation in acres: 5.15

Estimated post-construction ground elevation: 4842

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? 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:

Please See Waste Management Plan Attached.

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: Denmore, LLC Phone: _____

Address: 1942 Broadway Fax: _____

Address: Suite 314-C Email: _____

City: Boulder State: CO Zip: 80302

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 03/05/2019

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.

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.

	From WELL	From PRODUCTION FACILITY
Building:	524 Feet	347 Feet
Building Unit:	524 Feet	347 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	221 Feet	221 Feet
Above Ground Utility:	200 Feet	207 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	230 Feet	240 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5210 Feet	5190 Feet
Child Care Center:	5280 Feet	5280 Feet

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: 03/05/2019

FOR MULTI-WELL PADS AND PRODUCTION FACILTIES 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.

The parcel owner of the proposed Mathis 6HZ Pad owns the only bulding and building unit within 1000' of the proposed oil and gas location. Moving the location further to the north would place the location less than 1000' from the adjacent building unit. Moving the pad location to the south and west would not be technically feasible for drilling the northern laterals. The pad is located as east as possible constrained by the public roadway.

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: Vona loamy sand, 3 to 5 percent slopes

NRCS Map Unit Name: Vona loamy sand, 0 to 3 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: .

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: 1520 Feet

water well: 1130 Feet

Estimated depth to ground water at Oil and Gas Location 72 Feet

Basis for depth to groundwater and sensitive area determination:

Distance to nearest water well is owned by Arlo Boda with the Permit number 78835- receipt number 9065535. This water well was used to determine depth to groundwater.

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:

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

Operator Proposed Wildlife BMPs

No BMP

CPW 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

The Mathis 6HZC #1 is the reference well used for the location identification. The distances for the cultural setbacks were provided from the nearest proposed well and production facility on the pad.

The parcel owner of the proposed Mathis 6HZ Pad owns the only bulding or building unit within 1000' of the proposed oil and gas location. The owner has waived the 305.a, 305.c, 306.a, and 306.e notifications and meetings in the attached 305.a.(3) Waiver. We have included this waiver in lieu of a 30 day notification letter.

There are no surface water features within 1000' of the pad location.

Operator will provide a land application Facility # or beneficial reuse ID prior to drilling and disposal of water based cuttings or fluids via a Form 4 Sundry. The Waste Management Plan attached addresses disposal for both Commercial and land application procedures following COGCC Rule 907.

Mathis is planning to obtain demolition permits to take down abandoned barns where the pad location is being located.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.
Signed: _____ Date: 03/15/2019 Email: jdesmond@vanococonsulting.com

Print Name: Jack Desmond Title: Project Manager

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: _____

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	Planning	A permeant fencing plan will be reviewed by the surface owner and applicant
2	Planning	604c.(2).B. Operator will use a closed loop system for drilling and fluid management. No pits will be dug.
3	Planning	604c.(2).C. Green Completion: Test separators and associated flow lines and sand traps shall be installed on-site to accommodate Green completions techniques pursuant to COGCC Rules. The wells are expected to be connected to gathering within 60-180 days of completion. Prior to a sales line connection, flowback gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flow-back within a 10-mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustion where noncombustible gases are present.
4	Planning	Well heads will be restaked and measured after pad construction.

5	Traffic control	604c.(2).D. Traffic Plan: Prior to the commencement of operations, the operator will obtain access and ROW permits per Weld County Code and implement COAs or traffic control plans as required.
6	Traffic control	604.c (2).E. To reduce footprint, the pad is planned as a multiwell pad. The pad will have all-weather access and noise mitigation measures (sound walls) will be installed and removed without disturbing landscape.
7	General Housekeeping	Cleanup of trash, scrap, and discarded materials will be conducted at the end of each workday.
8	General Housekeeping	Mud control: when conditions exist that roads are excessively muddy, additional fill material will be added in order to dehydrate the environment and reduce the amount of material that is transported from the wells roads and location to off-site areas.
9	Storm Water/Erosion Control	Stormwater management plans (SWMP) will be in place to address construction, drilling, and operations associated with CDPHE permits. BMPs for stormwater will be implemented around the perimeter of the pad prior to or during construction and will vary according to the location. These BMPs will remain in place and maintained throughout operations until final reclamation.
10	Material Handling and Spill Prevention	Drip pans will be used during fueling of equipment to contain spills and leaks. Visual inspections of pipe and connections will be performed frequently to detect leaks which will be immediately corrected, repaired and reported to COGCC as required. Spill prevention Control Countermeasure (SPCC) will be in place to address any possible spill associated with oil and gas operations.
11	Material Handling and Spill Prevention	604c.(2).N. Control of Fire Hazards: Mathis and its contractors will employ best management practices during the drilling and production of its wells and facilities and will comply with appropriate COGCC rules concerning safety and fire. Company will ensure that any material that might be deemed a fire hazard will remain no less than 25 feet from the wellhead(s), tanks and separator(s). A County approved Emergency Response Plan will be created for this site.
12	Material Handling and Spill Prevention	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 offsite, suitable facilities. 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.
13	Material Handling and Spill Prevention	Oil-based drilling fluids (OBDF) will be separated from the cuttings at surface. At the end of its use on a particular well, the liquid oil-based mud will be reused for additional drilling operations or it will be returned to then vendor who originally supplied the mud. Transportation will occur on a daily basis as required to facilitate on ongoing drilling operations. Oil-based drill cuttings (OBDC) will be separated from liquid mud onsite and the cuttings will be temporarily stored onsite in steel bins. Accumulated cuttings will be transported for permanent disposal to a licensed solid waste disposal facility. The actual solid waste disposal facility that will be used will depend on geographic proximity to the well being drilled. Transportation will occur on a daily basis as required to facilitate ongoing drilling operations.
14	Dust control	To prevent dust from becoming a nuisance to the public, water trucks will be utilized to spread water across any dust problem areas.
15	Construction	All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). MATHIS shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule.

16	Construction	All access roads are designed, constructed, and maintained such that heavy equipment, including emergency response vehicles, can readily access and exit the location. The pad has all weather access roads to allow for operator and emergency response.
17	Noise mitigation	Operator will consult with owners of residents and occupied structures and other stakeholders to reduce impact of noise and light during drilling and completion operations. The direction of prevailing winds is considered when planning the location in order to mitigate odor and noise from being a nuisance to the surrounding residents and occupied structures. In order to minimize sound levels during drilling operations at nearby residences, rig generators will be located as far as possible from the residence by rig orientation. Rig lighting will also be directed away from residential units. As necessary, temporary straw bale walls or sound walls will be constructed to dampen noise in the direction of residential units.
18	Emissions mitigation	Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C.
19	Emissions mitigation	604c.(2} F. Leak Detection Plan: Mathis personnel will conduct weekly Audio, Visual and Olfactory (AVO) inspections of well heads, separation equipment, tanks, valves, fittings and thief hatches to identify potential leaks and correct promptly. Once per month personnel will conduct additional inspections of facilities with a FLIR camera to ensure no leaks from well heads, separation equipment, tanks valves, fittings, thief hatches, and other potential sources of fugitive emissions.
20	Odor mitigation	Hydrocarbon odors from production facilities are minimized and eliminated by keeping produced fluid hydrocarbons and natural gas contained within pipes, separators, tanks, and combustors. All tanks will be sealed with thief hatches and gaskets. Tank vapors are captured with properly sized piping and combustors.

Total: 20 comment(s)

Attachment Check List

Att Doc Num	Name
401968859	FORM 2A SUBMITTED
401968873	ACCESS ROAD MAP
401968874	LOCATION DRAWING
401968878	LOCATION PICTURES
401968880	RULE 305.a.(3) EVIDENCE OF COMPLIANCE
401968905	NRCS MAP UNIT DESC
401968906	NRCS MAP UNIT DESC
401971699	FACILITY LAYOUT DRAWING
401973148	SURFACE AGRMT/SURETY
401973168	WASTE MANAGEMENT PLAN
401974543	MULTI-WELL PLAN

Total Attach: 11 Files

General Comments

User Group	Comment	Comment Date
Permit	Passed completeness.	03/19/2019
Permit	Referred to OGLA supervisor for buffer zone review.	03/18/2019
Permit	•Returned to Draft at Operator's Request.	03/15/2019

Total: 3 comment(s)

Public Comments

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