

FORM  
2

Rev  
05/22

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:

403360545

(SUBMITTED)

Date Received:

04/13/2023

APPLICATION FOR PERMIT TO

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

Amend ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: \_\_\_\_\_

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Silverside 6-64 4-2

Well Number: 2HN

Name of Operator: GMT EXPLORATION COMPANY LLC

COGCC Operator Number: 10243

Address: 4949 S NIAGARA ST SUITE 250

City: DENVER

State: CO

Zip: 80237

Contact Name: Maxwell Blair

Phone: (303)586-9291

Fax: ( )

Email: mblair@gmtexploration.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 20070102

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ \_\_\_\_\_

WELL LOCATION INFORMATION

Surface Location

QtrQtr: 1 Sec: 4 Twp: 6S Rng: 64W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 1005 Feet FNL 401 Feet FEL

Latitude: 39.562215

Longitude: -104.551550

GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP

Date of Measurement: 05/10/2022

Ground Elevation: 6017

Field Name: WILDCAT

Field Number: 99999

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 4 Twp: 6S Rng: 64W

Footage at TPZ: 1120 FNL 2517 FEL

Measured Depth of TPZ: 8846

True Vertical Depth of TPZ: 7862

FNL/FSL

FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 2 Twp: 6S Rng: 64WFootage at BPZ: 1099 FNL 600 FELMeasured Depth of BPZ: 21193True Vertical Depth of BPZ: 7862 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 2 Twp: 6S Rng: 64WFootage at BHL: 1099 FNL 550 FEL

FNL/FSL

FEL/FWL

**LOCAL GOVERNMENT PERMITTING INFORMATION**County: ELBERTMunicipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of §

24-65.1-108 C.R.S.? No

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☐ 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 disposition of the application filed with the Relevant Local Government is: Other Date of Final Disposition: \_\_\_\_\_Comments: The Elbert County permit will be submitted at a later date.**SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION**Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ IndianMineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Bond (if applicable): \_\_\_\_\_ Surety ID Number (if applicable): \_\_\_\_\_

**MINERALS DEVELOPED BY WELL**

The ownership of all the minerals that will be developed by this Well is (check all that apply):

☒ Fee☐ State☐ Federal☐ Indian☐ N/A**LEASE INFORMATION**

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

\* If this Well is within a unit, describe a lease that will be developed by the Well.

\* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

T6S R64W Sec. 5; 7: All; T6S R65W Sec. 11: E2NW;NE;W2SE;W2SW; Sec. 15: E2NW; NE; W2SE; W2SW; Sec. 25: All; Sec. 27: All; Sec. 35: N2; SW.Total Acres in Described Lease: 3811 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 3134 Feet  
Building Unit: 3144 Feet  
Public Road: 989 Feet  
Above Ground Utility: 3413 Feet  
Railroad: 5280 Feet  
Property Line: 401 Feet

### INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR	535-1424	3247	T6S R64W Sec. 2,3,4,5,6: All

Federal or State Unit Name (if appl):

Unit Number:

## SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 600 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 470 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: Feet

## Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers.

## SPACING & FORMATIONS COMMENTS

The OGDG Order 535-1423 approved the Ragged 6-64 4 COGCC Form 2A.

## DRILLING PROGRAM

Proposed Total Measured Depth: 21243 Feet

TVD at Proposed Total Measured Depth 7862 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: \_\_\_\_\_ Feet ☒ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H<sub>2</sub>S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial reuse or land application plan submitted? \_\_\_\_\_

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	24	16	H40	42	0	80	100	80	0
SURF	13+1/2	9+5/8	J55	36	0	2180	572	2180	0
1ST	8+1/2	5+1/2	P110	20	0	21243	3709	21243	

☐ Conductor Casing is NOT planned

## POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Upper Dawson	0	0	79	79	0-500	DWR	
Groundwater	Lower Dawson	79	79	204	204	0-500	DWR	
Groundwater	Denver	204	204	1091	1091	0-500	DWR	
Groundwater	Upper Arapahoe	1091	1091	1923	1896	0-500	DWR	
Groundwater	Laramie-Fox Hills	1923	1896	2183	2130	0-500	DWR	
Confining Layer	Pierre Shale	2183	2130	5899	5460			
Hydrocarbon	Sussex-Terry	5899	5460	6732	6200			
Confining Layer	Pierre Shale	6732	6200	8210	7570			
Subsurface Hazard	Sharon Springs Shale	8210	7570	8272	7620			
Hydrocarbon	Niobrara	8272	7620	21243	7862			

## OPERATOR COMMENTS AND SUBMITTAL

Comments Distance from completed zone of this wellbore to nearest completed zone of an offset well within the same unit permitted or completed in the same formation was measured to the proposed Silverside 6-64 4-2 1HN operated by GMT Exploration Company, LLC in 2D.

There are no wells within 1500' of this wellbore operated by another Operator.

This well has a bottom-hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback at 600' FNL and 600' FEL of Section 2. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.



This application is in a Comprehensive Area Plan \_\_\_\_\_ No \_\_\_\_\_ CAP #: \_\_\_\_\_  
Oil and Gas Development Plan Name Ragged 6-64 4 OGD ID#: 483696  
Location ID: 484179

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

Signed: \_\_\_\_\_ Print Name: Andrea Gross

Title: Permit Agent Date: 4/13/2023 Email: agross@upstreampm.com

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: \_\_\_\_\_ Director of COGCC \_\_\_\_\_ Date: \_\_\_\_\_  
Expiration Date: \_\_\_\_\_

API NUMBER

05

### Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

<u>COA Type</u>	<u>Description</u>
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0 COA	
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### Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
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- |   |                                |   |
|---|--------------------------------|---|
| 1 | Drilling/Completion Operations | One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs will state "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run. |
| 2 | Drilling/Completion Operations | Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.   |

Total: 2 comment(s)

### Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403365485	WELL LOCATION PLAT
403365486	DIRECTIONAL DATA
403372608	DEVIATED DRILLING PLAN

Total Attach: 3 Files

### General Comments

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

Total: 0 comment(s)

