

FORM
2

Rev
05/22

State of Colorado Oil and Gas Conservation Commission

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Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403234280

(SUBMITTED)

Date Received:

12/06/2022

APPLICATION FOR PERMIT TO

Drill Deepen Re-enter Recomplete and Operate

Amend

TYPE OF WELL OIL GAS COALBED OTHER: _____

Refile

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: Hunt Fed 8-60 Well Number: 19-24-2
 Name of Operator: MALLARD EXPLORATION LLC COGCC Operator Number: 10670
 Address: 1400 16TH STREET SUITE 300
 City: DENVER State: CO Zip: 80202
 Contact Name: Erin Mathews Phone: (720)543 7951 Fax: ()
 Email: emathews@mallardexploration.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): 20170015

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: SENE Sec: 19 Twp: 8N Rng: 60W Meridian: 6

Footage at Surface: 1722 Feet FNL 550 Feet FEL

Latitude: 40.650300 Longitude: -104.127076

GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 03/24/2020

Ground Elevation: 4933

Field Name: DJ HORIZONTAL NIOBRARA Field Number: 16950

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: 19 Twp: 8N Rng: 60W Footage at TPZ: 800 FNL 300 FEL

Measured Depth of TPZ: 6900 True Vertical Depth of TPZ: 6441 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)
 Sec: 24 Twp: 8N Rng: 61W Footage at BPZ: 800 FNL 300 FWL
 Measured Depth of BPZ: 16876 True Vertical Depth of BPZ: 6441 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)
 Sec: 24 Twp: 8N Rng: 61W Footage at BHL: 800 FNL 300 FWL
 FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: 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.? Yes

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: Approved Date of Final Disposition: 07/09/2020

Comments: WOGLA20-0026 submitted 5/19/2020, approved 7/9/2020.

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 Indian

Mineral 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.)

NE/4, Sec 19, T8N. R60W

Total Acres in Described Lease: 160 Described Mineral Lease is: Fee State Federal Indian
 Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 3567 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 550 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	535-1298	1280	19, 24: 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: 300 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: 521 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

DRILLING PROGRAMProposed Total Measured Depth: 16876 FeetTVD at Proposed Total Measured Depth 6441 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: 143 Feet No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H₂S 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? NoWill salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP 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	26	16	J55	43	0	100	50	100	0
SURF	13+1/2	9+5/8	J55	36	0	1850	650	1850	0
1ST	8+1/2	5+1/2	110HCP	20	0	16876	1860	16876	

 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	LARAMIE	0	0	195	195	0-500	DWR	
Groundwater	LARAMIE FOX HILLS	195	195	643	640	0-500	DWR	
Groundwater	PIERRE SHALE	463	460	955	645	0-500	DWR	
Groundwater	UPPER PIERRE	955	945	1764	1735	0-500	DWR	
Confining Layer	PIERRE SHALE	1764	1735	3444	3376			
Hydrocarbon	RICHARD SANDSTONE	3444	3376	3561	3491			
Hydrocarbon	PARKMAN SANDSTONE	3561	3491	3925	3846			
Confining Layer	PIERRE SHALE	3925	3846	6329	6182			
Confining Layer	SHARON SPRINGS SHALE	6329	6182	6376	6220			
Hydrocarbon	NIOBRARA SHALE	6376	6220	16876	6441			The TVD of the deepest hydrocarbon zone is the bottom of the well and not the bottom of the formation. The formation is not planned to be exited.

OPERATOR COMMENTS AND SUBMITTAL

Comments

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.
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.
3	Drilling/Completion Operations	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 shall clearly state 'Alternative Logging Program - No open-hole logs were run' and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.

Total: 3 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403235502	DEVIATED DRILLING PLAN
403235505	DIRECTIONAL DATA
403235508	WELL LOCATION PLAT
403250335	OffsetWellEvaluations Data

Total Attach: 4 Files

General Comments

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

Total: 0 comment(s)