

FORM
2
Rev
12/20

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:

403036032

(SUBMITTED)

Date Received:

05/24/2022

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: Gadwall Well Number: 30-31-1HN

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)5437951 Fax: ()

Email: emathews@mallardexploration.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170115

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NWNE Sec: 30 Twp: 8N Rng: 60W Meridian: 6

Footage at Surface: 746 Feet FNL/FSL 2267 Feet FEL/FWL

Latitude: 40.638437 Longitude: -104.133546

GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 08/10/2017

Ground Elevation: 4948

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: 30 Twp: 8N Rng: 60W Footage at TPZ: 900 FNL 305 FWL

Measured Depth of TPZ: 7378 True Vertical Depth of TPZ: 6455 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 31 Twp: 8N Rng: 60W Footage at BPZ: 300 FSL 305 FWL

Measured Depth of BPZ: 16750 True Vertical Depth of BPZ: 6455 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 31 Twp: 8N Rng: 60W Footage at BHL: 300 FSL 305 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: 09/05/2018

Comments: WOGLA 18-0087 submitted 7/9/2018, approved 9/5/2018

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 Financial Assurance (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.)

Township 8 North, Range 60W, 6th PM

Section 29: NW4

Section 30: NE4

The wellbore does not cross lease described but the lease is within DSU.

Total Acres in Described Lease: 318 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 4442 Feet
Building Unit: 4606 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

Public Road: 735 Feet
Above Ground Utility: 660 Feet
Railroad: 5280 Feet
Property Line: 341 Feet

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	535-1273	2560	Sec 29,30,31,32: 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: 669 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: 16750 Feet TVD at Proposed Total Measured Depth 6455 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: 677 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 NoneBeneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
CONDUCTOR	26	16	N/A	43	0	80	50	80	0
SURF	13+1/2	9+5/8	J55LTC	36	0	1700	575	1700	0
1ST	8+1/2	5+1/2	HCP110	20	0	16750	2350	16750	

 Conductor Casing is NOT planned**POTENTIAL FLOW AND CONFINING FORMATIONS**

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Laramie	0	0	163	163	0-500	DWR	
Groundwater	Laramie Fox Hills	163	163	611	608	0-500	DWR	
Groundwater	Pierre Shale	611	608	924	913	0-500	DWR	
Groundwater	Upper Pierre	924	913	1779	1698	0-500	DWR	
Confining Layer	Pierre Shale	1779	1698	3666	3400			
Hydrocarbon	Richard Sandstone	3666	3400	3799	3520			
Hydrocarbon	Parkman Sandstone	3799	3520	4198	3880			
Confining Layer	Pierre Shale	4198	3880	6764	6185			
Confining Layer	Sharon Springs Shale	6764	6185	6815	6225			
Hydrocarbon	Niobrara Shale	6815	6225	16750	6455			Bottom TVD is bottom of the well and not bottom of the formation; the formation is not planned to be exited.

OPERATOR COMMENTS AND SUBMITTAL

Comments

This Form 2 is being submitted as a refile of API 05-123-47034.

Surface hole and lateral location remain unchanged. TVD and TMD of well have been updated - target formation remains unchanged.

The well site has not been constructed. There have been no changes to the surrounding land use, Surface & Minerals, Right to Construct, or mineral lease descriptions. All previously submitted notices, Surface Use Agreements, and letters are also still valid.

Cultural Distances have been updated.

Nearest well in unit per anti-collision is unchanged as the Gadwall 30-31-2HN.

Nearest outside operated well is the Shomo 1-6H (API:05-123-35315) AL status per 2-D calculation.

This application is in a Comprehensive Area Plan No CAP #: _____

Oil and Gas Development Plan Name Gadwall Pad OGDID#: 481114

Location ID: 455385

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

Signed: _____ Print Name: Jordan Lukasik

Title: Regulatory Analyst I Date: 5/24/2022 Email: regulatory@ascentgeomatics.c

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

05 123 47034 00

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.

COA Type

Description

<u>COA Type</u>	<u>Description</u>

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.
2	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with open-hole resistivity log and gamma ray log from the kick-off point into the surface casing. 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 shall 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.
3	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: 3 comment(s)

Attachment List

Att Doc Num	Name
403056736	OffsetWellEvaluations Data
403056738	DIRECTIONAL DATA
403056739	DEVIATED DRILLING PLAN
403056742	WELL LOCATION PLAT

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

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

