FORM 2 Rev 08/16

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: 401536523 **(SUBMITTED)**

Date Received:

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER ____ Refiling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐ Sidetrack ☐

Well Name: Shelduck Well Number: 6-5-14HN

Name of Operator: MALLARD EXPLORATION LLC COGCC Operator Number: 10670

Address: 1821 BLAKE STREET STE 2B

City: DENVER State: CO Zip: 80202

Contact Name: Erin Mathews Phone: (720)543 7951 Fax: ( )

Email: emathews@mallardexploration.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170115

WELL LOCATION INFORMATION

QtrQtr: Lot 6 Sec: 6 Twp: 7N Rng: 60W Meridian: 6

Latitude: 40.600621 Longitude: -104.142973

Footage at Surface: 1342 Feet FNL/FSL FSL 629 Feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 4954 County: WELD

GPS Data:

Date of Measurement: 12/14/2017 PDOP Reading: 1.2 Instrument Operator's Name: Ryan Desmond

If well is ☐ Directional ☒ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone:	FNL/FSL	FEL/FWL	Bottom Hole:	FNL/FSL	FEL/FWL
	975 FSL	600 FWL		975 FSL	2600 FWL
Sec: 6	Twp: 7N	Rng: 60W	Sec: 5	Twp: 7N	Rng: 60W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: (check all that apply)

- ☒ is the mineral owner beneath the location.
- ☒ 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 by this Well: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: ____ Surface Surety ID: ____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

W/2, Sec 6, T7N, R60W

Total Acres in Described Lease: 315 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease #

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	3705	Feet
Building Unit:	3773	Feet
High Occupancy Building Unit:	5280	Feet
Designated Outside Activity Area:	5280	Feet
Public Road:	3921	Feet
Above Ground Utility:	3966	Feet
Railroad:	5280	Feet
Property Line:	629	Feet

INSTRUCTIONS:
- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, and Designated Outside Activity Area - as defined in 100-Series Rules.

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.

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:

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 266 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 600 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Unit Number:

SPACING & FORMATIONS COMMENTS

Docket #180300240 for April 2018 hearing.
Unit Configuration = T7N-R60W: Sec 6: All, Sec 5: All

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	pending	1280	7N-60W: 5&6: All

SUBMITTED

DRILLING PROGRAM

Proposed Total Measured Depth: 13989 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: 332 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H_2S 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 Operations Plan)

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

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	43	0	80	50	80	0
SURF	12+1/4	9+5/8	36	0	1600	450	1600	0
1ST	8+1/2	5+1/2	20	0	13978	1950	13978	1600

☐ Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)

☐ 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)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318A.a. Exception Location (GWA Windows).

☐ Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

SUBMITTED

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number _____

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

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: Nearest wellbore in proposed unit from anti-collision survey is Shelduck 6-5-15HC.

Nearest permitted or existing wellbore belonging to another operator from anti-collision survey is the Dome Hill 1-6 (API: 05-123-10675) PA Status.

First string setting depth is intentionally set approximately 10' less than Total Measured Depth.

This application is in a Comprehensive Drilling Plan: No CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: _____ Print Name: Justin Garrett

Title: Regulatory Analyst Date: _____ Email: regulatory@ascentgeomatics.c

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: _____

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.

COA Type	Description

Best Management Practices

No	BMP/COA Type	Description
1	Planning	Plugged and abandoned wells will be identified pursuant to 319.a.(5).
2	Drilling/Completion Operations	A closed-loop system will be used for drilling operations. Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.
3	Drilling/Completion Operations	317.p One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from 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 the logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run).

Total: 3 comment(s)

Attachment Check List

Att Doc Num	Name
401551675	OffsetWellEvaluations Data
401551677	DIRECTIONAL DATA
401551679	DEVIATED DRILLING PLAN
401551682	WELL LOCATION PLAT

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

SUBMITTED

Public Comments

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

SUBMITTED