

FORM

2

Rev
02/20

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:

402438330

APPLICATION FOR PERMIT TO:

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

Date Received:

07/30/2020

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____Refiling ☒ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Harlequin

Well Number: 34-35-1HN

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)543 7951

Fax: ()

Email: emathews@mallardexploration.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170115

WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 33 Twp: 8N Rng: 61W Meridian: 6

Latitude: 40.622221

Longitude: -104.203761

Footage at Surface: 1172 Feet FNL/FSL FNL 546 Feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 5028

County: WELD

GPS Data: GPS Quality Value: 1.2 Type of GPS Quality Value: PDOP Date of Measurement: 12/13/2017

Instrument Operator's Name: Alan Hnizdo

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

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FNL/FWL

305 FNL 300 FWL 305 FNL 300 FEL

Sec: 34 Twp: 8N Rng: 61W Sec: 35 Twp: 8N Rng: 61W

LOCAL GOVERNMENT INFORMATION

County: WELD

Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.

☒ Yes ☐ NoIf 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 local government siting permit type is: WOGLA

The local government siting permit was filed on: 07/26/2018

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WOGLA18-0095 submitted 7/26/2018, approved 11/7/2018

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: ☐ is the mineral owner beneath the location.

(check all that apply) ☐ 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: Surface Use Agreement

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.)

NE/4, Sec 33; NW/4, Sec 34, T8N, R61W

Total Acres in Described Lease: 320 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: 4925 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 4741 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 546 Feet

School Facility: 5280 Feet

School Property Line: 5280 Feet

Child Care Center: 5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: 669 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 300 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

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	535-1299	2560	2,3:7N; 34,35:8N

DRILLING PROGRAM

Proposed Total Measured Depth: 17020 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: 295 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is 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 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	13+1/2	9+5/8	36	0	1700	475	1700	0
1ST	8+1/2	5+1/2	20	0	17020	2425	17020	

☐ 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

- ☐ 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

This Form 2 is being submitted as a refile of API 05-123-47145 (fka Harlequin 33-32-1HN).

This is part of a multi-pad realignment to maximize efficiency and decrease number and acreage of surface disturbance for wells under approved spacing order 535-1299 to the east covering Sections 34 & 35 of 8N-61W and Sections 2 & 3 of 7N-61W and the proposed Docket #200500143 to the west covering Sections 4 & 5 of 7N-61W, 32 & 33 of 8N-61W, and the S/2 of Sections 28 & 29 of 8N-61W.

Whistling Pad (Loc ID 459773) is being abandoned along with its associated 7 Wells: (05-123-49033, 05-123-49034, 05-123-49035, 05-123-49036, 05-123-49037, 05-123-49038, 05-123-49039)

Pochard East Pad (Loc ID 455274) is being abandoned along with its associated 8 wells (05-123-46955, 05-123-46956, 05-123-46957, 05-123-46958, 05-123-46959, 05-123-46960, 05-123-46964, 05-123-46966)

Pochard West Pad (Loc ID 455220) is being abandoned along with its associated 8 Wells (05-123-46938, 05-123-46939, 05-123-46940, 05-123-46941, 05-123-46942, 05-123-46943, 05-123-46944, 05-123-46945)

Long Tail East Pad (Loc ID 455215) is being abandoned along with its associated 8 Wells (05-123-46923, 05-123-46924, 05-123-46925, 05-123-46927, 05-123-46929, 05-123-46930, 05-123-46931, 05-123-46933)

Long Tail West Pad (Loc ID 455202) is being abandoned along with its associated 8 Wells (05-123-46922, 05-123-46926, 05-123-46928, 05-123-46932, 05-123-46934, 05-123-46935, 05-123-46936, 05-123-46937)

Muscovy Pad (Loc ID 466968) is being realigned, where 15 of the 16 Wells (05-123-50521, 05-123-50522, 05-123-50523, 05-123-50524, 05-123-50525, 05-123-50526, 05-123-50526, 05-123-50527, 05-123-50528, 05-123-50529, 05-123-50530, 05-123-50531, 05-123-50532, 05-123-50533, 05-123-50534, 05-123-50535, 05-123-50536) will be respaced to 8 wells going West and 8 wells going East.

Harlequin North Pad (Loc ID 455576) is being realigned, where all 8 Wells (05-123-47141, 05-123-47142, 05-123-47143, 05-123-47144, 05-123-47145, 05-123-47146, 05-123-47147, 05-123-47148) will be respaced to 6 wells going West and 2 going East.

Harlequin South Pad (Loc ID 455687) is being realigned, where all 8 Wells (05-123-47222, 05-123-47223, 05-123-47224, 05-123-47225, 05-123-47226, 05-123-47227, 05-123-47228, 05-123-47229) will be respaced to 4 going West and 4 going East.

There have been no new buildings constructed and no changes to the surrounding land use.

The well site has not yet been constructed.

This location is not in a buffer or exception zone, so no notices are required under Rule 305.

The nearest well information has been updated to reflect the respaced laterals.

Nearest well in unit per anti-collision is the Harlequin 34-35-2HN.

Nearest outside operated well per anti-collision is the Orlando B (API: 05-123-14086) DA Status.

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

Location ID: 455576

Is this application being submitted with an Oil and Gas Location Assessment application? No

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: 7/30/2020 Email: regulatory@ascentgeomatics.c

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 9/16/2020

API NUMBER

05 123 47145 00

Expiration Date: 09/15/2022

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

Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with cement bond log. Confirm rule and cement coverage with COGCC Area Engineer prior to drilling this well. 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered. 4) The Operator will abide by the COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area, May 29, 2012.
Drilling/Completion Operations	Bradenhead Testing Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	Operator acknowledges the proximity of the non-operated listed well. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. SPEAKER P (API 123-5490)
Drilling/Completion Operations	Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 3). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. RAY-STATE1 (API 123-7359) SPEAKER D (API 123-10007) ORLANDO B (API 123-14086)
Drilling/Completion Operations	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Drilling/Completion Operations	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).

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	Alternative Logging Program: One of the first wells drilled on the pad will be logged with an 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 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)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402438330	FORM 2 SUBMITTED
402455472	OffsetWellEvaluations Data
402455474	DEVIATED DRILLING PLAN
402455480	DIRECTIONAL DATA
402455486	SURFACE AGRMT/SURETY
402459529	WELL LOCATION PLAT
402490852	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	09/16/2020
Permit	Permit review complete.	09/16/2020
OGLA	Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, and welfare and the environment, including wildlife resources set by SB 19-181. The Objective Criteria Review Memo (Doc# 1347966) can be found in the document file for Location ID 455576.	09/16/2020
OGLA	COGCC staff reviewed and considered all public comments received for this Form 2. The Form 2 and the related Form 2A were reviewed under the Objective Criteria, as set out under SB 19-181, that allows for permitting to continue while new rules are being considered.	09/16/2020
Engineer	<ul style="list-style-type: none">•Surface Casing Check complete•Offset well review complete317.r - No wells317.s - No wells•Engineering review complete	09/15/2020
Permit	Passed completeness.	08/14/2020
Permit	TPZ and BHL different from Well Location Plat on file and no new plat attached. Location ID does not match. Return to draft.	08/04/2020

Total: 7 comment(s)