

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:

402592125

(SUBMITTED)

Date Received:

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: Bunker 8

Well Number: 5H

Name of Operator: MAGPIE OPERATING INC

COGCC Operator Number: 52530

Address: 2707 SOUTH COUNTY RD 11

City: LOVELAND

State: CO

Zip: 80537

Contact Name: Ryan Warner

Phone: (970)669-6396

Fax: ()

Email: magpieoil@yahoo.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20210006

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NESW Sec: 29 Twp: 5N Rng: 68W Meridian: 6

Footage at Surface: 2080 Feet FSL 2275 Feet FWL

Latitude: 40.369560 Longitude: -105.032010

GPS Data: GPS Quality Value: 1.2 Type of GPS Quality Value: PDOP

Date of Measurement: 09/10/2018

Ground Elevation: 4985

Field Name: LOVELAND

Field Number: 52000

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: 29 Twp: 5N Rng: 68W

Footage at TPZ: 2112 FSL 647 FEL

Measured Depth of TPZ: 6342

True Vertical Depth of TPZ: 4805

FNL/FSL

FEL/FWL

Base of Productive Zone (BPZ)

Sec: 30 Twp: 5N Rng: 68W

Footage at TPZ: 2209 FSL 1979 FWL

Measured Depth of TPZ: 14250

True Vertical Depth of TPZ: 4705

FNL/FSL

FEL/FWL

Bottom Hole Location (BHL)

Sec: 30 Twp: 5N Rng: 68W

Footage at BHL: 2209 FSL 1979 FWL

FNL/FSL

FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: LARIMER

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.? 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: Waived Date of Final Disposition: 10/21/2019

Comments: Larimer County, at the time of initial submittal of the 2A, did not regulate siting. They enacted rules during the processing of the 2A. They have chosen to waive siting for this location. A letter attesting to their waiving of regulating the Bunker 8 location is attached.

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.)

Sec 29: SW4; Sec 31: N2NE; and Sec 32: NW4

Total Acres in Described Lease: 400 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian
Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1901 Feet
Building Unit: 1901 Feet
Public Road: 2244 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.

Above Ground Utility: 2228 Feet

Railroad: 5280 Feet

Property Line: 348 Feet

- 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.) |
|------------------------|----------------|-------------------------|-------------------------------|--|
| CODELL | CODL | 384-3 | 3280 | 4N-68W Sec 5: W/2NE/4, NW/4, N/2SW/4, NW/4SE/4; Sec 6: N/2 |

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: 647 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: 145 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: 14250 FeetTVD at Proposed Total Measured Depth 4705 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: 265 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 thanor 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 | 36 | 30 | Line | 40 | 0 | 40 | 120 | 40 | 0 |
| SURF | 13+1/2 | 9+5/8 | J55 | 36 | 0 | 1500 | 560 | 1500 | 0 |
| 1ST | 8+5/8 | 5+1/2 | P110 | 17 | 0 | 14250 | 2065 | 14250 | 0 |

☐ 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/Fox Hills | 0 | 0 | 1000 | 995 | 1001-10000 | Groundwater Sample | Aquifer review on DWR showed no data for this area; TDS and depths are from Groundwater sampling sites on COGCC. |
| Confining Layer | Parkman | 1000 | 995 | 1750 | 1610 | | | |
| Hydrocarbon | Sussex | 1750 | 1610 | 2225 | 1990 | | | |
| Hydrocarbon | Shannon | 2225 | 1990 | 5625 | 4470 | | | |
| Confining Layer | Sharon Springs | 5625 | 4470 | 5700 | 4500 | | | |
| Hydrocarbon | Niobrara | 5700 | 4500 | 6050 | 4750 | | | |
| Hydrocarbon | Codell | 6050 | 4750 | 14250 | 4705 | | | Btm MD=TD, Btm TVD=TVD @ BHL, since well is drilled with inclination > 90 deg |

OPERATOR COMMENTS AND SUBMITTALComments This is a replacement submittal for Document #401885067 to comply with the new rules effective January 15, 2021.

This application is in a Comprehensive Area Plan _____ CAP #: _____

Oil and Gas Development Plan Name _____ OGDID ID#: _____

Location ID: 307209

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

Signed: _____ Print Name: Jessica Donahue

Title: Compliance Specialist Date: _____ Email: jdonahue@ardorenvironmental.

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.

COA Type

Description

Best Management Practices

No BMP/COA Type

Description

| | | |
|---|--------------------------------|---|
| 1 | Drilling/Completion Operations | Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed well path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottom hole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. |
| 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 Program: Multi-Well Pad with Adequate Well Log Control in Offsetting Wells; Open Hole Logging Exception: One of the first wells drilled on the pad will be logged with cased-hole neutron log with 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 in that well and have those logs attached. The Form 5 for each well shall state "Open Hole Logging Exception - 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

Att Doc Num

Name

| | |
|-----------|----------------------------|
| 402596099 | OffsetWellEvaluations Data |
| 402596102 | DIRECTIONAL DATA |
| 402596103 | DEVIATED DRILLING PLAN |
| 402596104 | WELL LOCATION PLAT |

| | |
|-----------|-----------------------------|
| 402596105 | LGD CONSULTATION |
| 402596106 | OPEN HOLE LOGGING EXCEPTION |
| 402596107 | SURFACE AGRMT/SURETY |
| 402601994 | OPEN HOLE LOGGING EXCEPTION |

Total Attach: 8 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|---|---------------------|
| Permit | returned to draft: Distance to Building incorrect. Spacing Unit details not in unit configuration box. Open Hole Logging BMP is incorrect. | 02/17/2021 |

Total: 1 comment(s)



Public Comments

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

