

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:

402855740

(SUBMITTED)

Date Received:

12/20/2021

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: Schrute Well Number: 1NR  
Name of Operator: PDC ENERGY INC COGCC Operator Number: 69175  
Address: 1775 SHERMAN STREET - STE 3000  
City: DENVER State: CO Zip: 80203  
Contact Name: Ally Ota Phone: (303)860-5800 Fax: ( )  
Email: alexandria.ota@pdce.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160047

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NESW Sec: 16 Twp: 5N Rng: 64W Meridian: 6  
Footage at Surface: 2265 Feet FSL 1687 Feet FWL  
Latitude: 40.398290 Longitude: -104.558370  
GPS Data: GPS Quality Value: 2.1 Type of GPS Quality Value: PDOP Date of Measurement: 02/21/2019  
Ground Elevation: 4613  
Field Name: WATTENBERG Field Number: 90750

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: 16 Twp: 5N Rng: 64W Footage at TPZ: 2533 FSL 175 FWL  
Measured Depth of TPZ: 7557 True Vertical Depth of TPZ: 6696 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 15 Twp: 5N Rng: 64W Footage at BPZ: 2533 FSL 175 FEL  
Measured Depth of BPZ: 17709 True Vertical Depth of BPZ: 6641 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 15 Twp: 5N Rng: 64W Footage at BHL: 2533 FSL 175 FEL  
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: 09/18/2019

Comments: WOGLA19-0081 was approved 9/18/2019

## 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.)

5N-64W Sec 16: All

Total Acres in Described Lease: 640 Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian

Federal or State Lease # 81/6052-S

### SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1457 Feet  
Building Unit: 1810 Feet  
Public Road: 1679 Feet  
Above Ground Utility: 1660 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.

Railroad: 4859 Feet  
Property Line: 100 Feet

## 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           | 407-2937                | 1280                          | S.15 & 16: 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: 175 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: 266 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 PROGRAM

Proposed Total Measured Depth: 17709 Feet TVD at Proposed Total Measured Depth 6641 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: 20 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H<sub>2</sub>S 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? No

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

Beneficial 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> |
|--------------------|---------------------|-----------------------|--------------|--------------|----------------------|----------------------|------------------|----------------|----------------|
| SURF               | 12+1/4              | 9+5/8                 | J-55         | 36           | 0                    | 1600                 | 920              | 1600           | 0              |
| 1ST                | 8+1/2               | 5+1/2                 | P-110        | 20           | 0                    | 17709                | 2035             | 17709          | 0              |

☒ 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       | Fox Hills                | 485             | 485               | 720                | 720                  | 1001-10000        | Other              | COGCC UPWQ Study |
| Confining Layer   | Pierre Shale             | 720             | 720               | 865                | 865                  |                   |                    |                  |
| Groundwater       | UPIR/Pawnee Aquifer      | 865             | 865               | 1385               | 1385                 | 1001-10000        | Other              | COGCC UPWQ Study |
| Confining Layer   | Pierre Shale             | 1385            | 1385              | 3485               | 3485                 |                   |                    |                  |
| Hydrocarbon       | Parkman                  | 3485            | 3485              | 3785               | 3785                 |                   |                    |                  |
| Confining Layer   | Pierre Shale             | 3785            | 3785              | 3940               | 3940                 |                   |                    |                  |
| Hydrocarbon       | Sussex                   | 3940            | 3940              | 4275               | 4275                 |                   |                    |                  |
| Confining Layer   | Pierre Shale             | 4275            | 4275              | 4845               | 4845                 |                   |                    |                  |
| Hydrocarbon       | Shannon                  | 4845            | 4845              | 4950               | 4950                 |                   |                    |                  |
| Confining Layer   | Pierre Shale             | 4950            | 4950              | 6487               | 6487                 |                   |                    |                  |
| Subsurface Hazard | Sharon Springs Shale     | 6487            | 6487              | 6504               | 6504                 |                   |                    |                  |
| Hydrocarbon       | Niobrara                 | 6522            | 6522              | 17709              | 6641                 |                   |                    |                  |

**OPERATOR COMMENTS AND SUBMITTAL**

Comments While drilling the vertical portion of the well at 357' we lost circulation. An attempt was made to pick up out of the hole and establish circulation. While picking up out of the hole the BHA became stuck at 208'. The MWD tool was wireline retrievable so we were able to recover the MWD first thing. Several fishing attempts were made to recover the BHA with no success. We backed off the string at the UBHO sub (Universal Bottom Hole Orientation) and filled the hole to surface with cement.. Left in the hole was a UBHO sub (2.67'), Non Magnetic Pony (17.7'), 8" Mud Motor (31.79'), 12-1/4 Drill Bit (1.85'). Total fish length was 54', Top of fish was 154', bottom of fish was 208', bottom of hole was 357'. Hole was filled with Class G Neat cement. Cement specs are as follows: 1.15 cu/sk, 15.8 PPG, 498 sks pumped, Water to Cement 5 gal/sk, 102bbls of total cement pumped.  
Verbal/email approval to plug, skid rig, and spud replacement well granted by Diana Burn- Verbal approval on 12/19/2021, email approval on 12/20/2021. See attached correspondence.

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

Oil and Gas Development Plan Name \_\_\_\_\_ OGDID ID#: \_\_\_\_\_

Location ID: 471020

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

Signed: \_\_\_\_\_ Print Name: Ally Ota

Title: Regulatory Analyst Date: 12/20/2021 Email: alexandria.ota@pdce.com



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 | 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.   |
| 2 | Drilling/Completion Operations | 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: 2 comment(s)

### Attachment List

#### Att Doc Num

#### Name

|           |                        |
|-----------|------------------------|
| 402904306 | DIRECTIONAL DATA       |
| 402904609 | DEVIATED DRILLING PLAN |
| 402904610 | WELL LOCATION PLAT     |
| 402905290 | CORRESPONDENCE         |

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.

