

FORM
2

Rev
05/22

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:

403164088

(SUBMITTED)

Date Received:

09/26/2022

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: Rio

Well Number: 16N

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: regulatory@pdce.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 20160047

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ _____

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NWNW Sec: 6 Twp: 1S Rng: 67W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 324 Feet FNL 65 Feet FWL

Latitude: 39.999451

Longitude: -104.940102

GPS Data:

GPS Quality Value: 1.5

Type of GPS Quality Value: PDOP

Date of Measurement: 03/30/2020

Ground Elevation: 5068

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: 2 Twp: 1S Rng: 68W

Footage at TPZ: 460 FNL 755 FEL

Measured Depth of TPZ: 10685

True Vertical Depth of TPZ: 7656

FNL/FSL

FEL/FWL

Base of Productive Zone (BPZ)Sec: 11 Twp: 1S Rng: 68WFootage at BPZ: 460 FSL 755 FELMeasured Depth of BPZ: 20078True Vertical Depth of BPZ: 7656 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 11 Twp: 1S Rng: 68WFootage at BHL: 460 FSL 755 FEL

FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATIONCounty: ADAMSMunicipality: 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: 04/23/2019Comments: **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 ☐ IndianMineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ IndianSurface Owner Protection Bond (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.)

Total Acres in Described Lease: 160Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ IndianFederal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 600 Feet
Building Unit: 629 Feet
Public Road: 226 Feet
Above Ground Utility: 473 Feet
Railroad: 469 Feet
Property Line: 140 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.

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	407-1902	640	T1S-R68W Section 2: E2, Section 11: E2

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: 460 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: 270 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. Order 407-1902

SPACING & FORMATIONS COMMENTS

DRILLING PROGRAMProposed Total Measured Depth: 20078 FeetTVD at Proposed Total Measured Depth 7656 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: 67 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 ☐ NoneBeneficial reuse or land application plan submitted? No

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
SURF	13+1/2	9+5/8	J-55	36	0	2000	789	2000	0
1ST	8+1/2	5+1/2	P-110	20	0	20078	3666	20078	2400

☒ 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	Fox Hills Sandstone	580	580	950	950	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	950	950	1020	1020			
Groundwater	UPIR/Pawnee Aquifer	1020	1020	1450	1450	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1450	1450	4410	4410			
Hydrocarbon	Parkman	4410	4410	4560	4560			
Confining Layer	Pierre Shale	4560	4560	4795	4795			
Hydrocarbon	Sussex	4975	4975	4986	4986			
Confining Layer	Pierre Shale	4986	4986	5975	5975			
Hydrocarbon	Shannon	5975	5975	6070	6070			
Confining Layer	Pierre Shale	6070	6070	9993	7453			
Subsurface Hazard	Sharon Springs Shale	9993	7453	10035	7475			
Hydrocarbon	Niobrara	10685	7656	20078	7656			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The surface owner of this location is also the encroached upon surface owner. Property line waivers are attached.

The distance to the completed portion of the nearest well on the "Spacing and Formations" tab was measured to the Rio 17N (Doc 403164272) using COGCC GIS mapping, 2D plain view. The distance to the nearest wellbore belonging to another operator on the "Drilling Plan" tab was measured to the Standley 1-2 (05-001-09506) via the anti-collision report attached in the deviated drilling plan.

The subject well will have a treated interval less than 175' from the treated interval of the below listed wells owned by KP Kauffman. PDC does not plan to stimulate within 150' of these wells, therefore, no Stimulation Setback Consent is attached.

Ivey 16-11, 81', (05-001-09493), PR
Sack 1, 131', (05-001-07059), SI
Sack 8-11, 83', (05-001-09504), SI
Standley 1-2, 67', (05-001-09506), PR

An Exception Location Request to Order No. 407-1902 is attached, requesting this well to be drilled from the Rio LC Pad to produce within the Ivey North Unit.

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

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

Location ID: 465146

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: 9/26/2022 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

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	ALTERNATIVE PROGRAM: An existing well on the pad (Rio LC 12-242HC 05-001-09950) was 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.
2	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.

Total: 2 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403168711	OffsetWellEvaluations Data
403168818	EXCEPTION LOC REQUEST
403168819	EXCEPTION LOC WAIVERS
403168820	EXCEPTION LOC REQUEST
403168821	WELL LOCATION PLAT
403168822	DEVIATED DRILLING PLAN
403168823	DIRECTIONAL DATA

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

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

