

FORM
2

Rev
05/22

State of Colorado

Energy & Carbon Management Commission

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Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

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Date Received:

07/18/2024

APPLICATION FOR PERMIT TO

Drill Deepen Re-enter Recomplete and Operate

Amend

TYPE OF WELL OIL GAS COALBED OTHER: _____

Refile

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: WINDOM Well Number: 03NA
Name of Operator: PDC ENERGY INC ECMC Operator Number: 69175
Address: 1099 18TH STREET SUITE 1500
City: DENVER State: CO Zip: 80202
Contact Name: Patricia Minerich Phone: (303)228-4000 Fax: ()
Email: RBUDevPermitting@chevron.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

ECMC Financial Assurance

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

Surety ID Number (if applicable): 20230093

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: NWSE Sec: 24 Twp: 5N Rng: 67W Meridian: 6

Footage at Surface: 1847 Feet FSL 2304 Feet FEL

Latitude: 40.382891 Longitude: -104.840417

GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 11/05/2021

Ground Elevation: 4998

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: 24 Twp: 5N Rng: 67W Footage at TPZ: 1291 FNL 2464 FWL

Measured Depth of TPZ: 7966 True Vertical Depth of TPZ: 7227 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 23 Twp: 5N Rng: 67W Footage at BPZ: 1294 FNL 150 FWL
Measured Depth of BPZ: 15550 True Vertical Depth of BPZ: 6867 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 23 Twp: 5N Rng: 67W Footage at BHL: 1294 FNL 100 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: Greeley

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? [X] Yes [] No

[X] 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: 08/17/2023

Comments: 1041WOGLA23-0037 Approved on 8/17/2023

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: [X] Fee [] State [] Federal [] Indian

Mineral Owner beneath this Well's Oil and Gas Location: [X] Fee [] State [] Federal [] Indian

Surface 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):

- [X] 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.)

Township 5 North - Range 67 West Section 24: SE4

Total Acres in Described Lease: 160 Described Mineral Lease is: [X] Fee [] State [] Federal [] Indian

Federal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2069 Feet
Building Unit: 2214 Feet
Public Road: 1833 Feet
Above Ground Utility: 2073 Feet
Railroad: 5280 Feet
Property Line: 313 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	407-3556	2230	Township 5 North, Range 66 West Section 19: All Section 20: W2 Township 5 North, Range 67 West Section 23: All Section 24: 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: 150 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: 295 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: 15600 Feet TVD at Proposed Total Measured Depth 6867 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: 55 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 than or 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

<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>
CONDUCTOR	26	16	A-52A	36.94	0	80	175	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1850	633	1850	0
1ST	8+1/2	5+1/2	P-110	17	0	15600	1836	15600	

 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>
Confining Layer	Pierre Shale	0	0	545	545			
Groundwater	UPIR/Pawnee Aquifer	545	545	1512	1507	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1512	1507	4006	3866			
Hydrocarbon	Parkman	4006	3866	4411	4248			
Confining Layer	Pierre Shale	4411	4248	4642	4466			
Hydrocarbon	Sussex	4642	4466	4908	4716			
Confining Layer	Pierre Shale	4908	4716	5164	4958			
Hydrocarbon	Shannon	5164	4958	5376	5158			
Confining Layer	Pierre Shale	5376	5158	7609	7151			
Subsurface Hazard	Sharon Springs Shale	7609	7151	7701	7188			least competent shales
Hydrocarbon	Niobrara	7701	7188	15600	6867			Nio Target

OPERATOR COMMENTS AND SUBMITTAL

Comments

PDC Energy shall isolate both the Fox Hills and UPIR/Pawnee Aquifers with surface casing from hydrocarbon bearing zones and exposure to oil-based drilling fluid. PDC Energy also agrees to not expose the UPIR/Pawnee Aquifers to oil-based mud.

Fox Hills is not anticipated to be encountered.

The nearest well in the same formation is located on the same pad, the WINDOM 15N operated by PDC Energy Inc. Measured in 2D.

The distance to another wellbore belonging to an outside operator is the BLUE CHIP #22-4HZ 05-123-51935 operated by KERR MCGEE OIL & GAS ONSHORE LP, status PR. The distance was calculated using the anti-collision summary. 408.t-PDC will notify KMG if the well is within 150' prior to drilling. 408.u is not required, the distance from production zone to production zone is 295'

Wells within 150':

PHILLIPS PC #N23-17 05-123-25876 (PR) 4' operated by PDC ENERGY INC, no 408.u is required.

KINZER #18-23 05-123-24000 (TA) 70' operated by NOBLE ENERGY INC, 408.u consent attached.

This well has a bottom-hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback at 1294' FNL and 150' FWL of Section 23. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

This application is in a Comprehensive Area Plan Yes CAP #: 210200012

Oil and Gas Development Plan Name Cameron 2 OGDP ID#: 485239

Location ID: 485814

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

Signed: _____ Print Name: Kim Bauer

Title: Regulatory Analyst II Date: 7/18/2024 Email: kimberlybauer@chevron.com

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 ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved:  Director of ECMC Date: 9/15/2024

Expiration Date: 12/08/2032

API NUMBER
05 123 52687 00

CONDITIONS OF APPROVAL, IF ANY LIST

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	The Operator will insure the wellbore beyond the unit boundary setback is physically isolated and is not completed. In the Operator Comments on the Form 5A the operator will (1) report the footages from the section lines of the bottom of the completed interval (2) describe how the wellbore beyond the unit boundary setback is physically isolated and (3) certify that none of the wellbore beyond the setback was completed.
Drilling/Completion Operations	<p>1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad.</p> <p>2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log.</p> <p>3) Oil based drilling fluid can only be used after all groundwater has been isolated.</p>
Drilling/Completion Operations	<p>Per Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:</p> <p>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation.</p> <p>2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation.</p> <p>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) 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.</p> <p>PDC ENERGY INC 123-11720 PHILLIPS * #1 NOBLE ENERGY INC 123-18368 D.L. PHILLIPS *24-21 NOBLE ENERGY INC 123-18369 D.L. PHILLIPS *24-22 NOBLE ENERGY INC 123-18983 GOLDBERG *N 24-2 NOBLE ENERGY INC 123-19438 BLEHM N *26-03</p> <p>Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. A Bradenhead test will be performed on the offset wells listed below within 30 days prior to the beginning of stimulation of this well. A Bradenhead test will be performed on the offset wells listed below within 30 days of the end of stimulation of this well. Surface and production casing pressures of this offset well list will be actively monitored during stimulation of this well. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and ECMC Engineering notified. Within 60 days after stimulation is complete, a Form 4 Sundry shall be submitted for each offset well on this list describing how Option 4 work was completed and include a summary of the monitoring details.</p> <p>123-29345 PHILLIPS PC *N24-29D</p>
Drilling/Completion Operations	Operator will log two(2) additional wells during the first rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the two stratigraphically deepest wells on each side/direction of the pad for a total of three wells logged.
5 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	During and Post stimulation: PDC Energy Inc will comply with the COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated 5/29/12.`
2	Drilling/Completion Operations	If a skid is performed for the subject well, then the only required BOPE tests are for the BOPE connection bonnet seal breaks, as long as a full BOPE test was performed at the beginning of the pad, and as long as all necessary BOPE tests are completed at least every 30 days during the pad operations.`
3	Drilling/Completion Operations	One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. 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 will state "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.`
4	Drilling/Completion Operations	Operator will perform anti-collision evaluation of all active (producing, shut-in, or temporarily abandoned) offset wellbores that have the potential of being within 150' of the proposed well prior to drilling operations`

Total: 4 comment(s)

ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
403772644	FORM 2 SUBMITTED
403772713	WELL LOCATION PLAT
403788970	SURFACE AGRMT/SURETY
403794955	OffsetWellEvaluations Data
403814523	STIMULATION SETBACK CONSENT
403816274	DEVIATED DRILLING PLAN
403816316	DIRECTIONAL DATA
403921373	OFFSET WELL EVALUATION

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	08/06/2024
OGLA	The Commission approved OGDG #485239 on December 20, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	06/13/2024
Permit	Permitting review complete.	06/12/2024

Total: 3 comment(s)