

FORM  
2  
Rev  
05/22

# State of Colorado Energy & Carbon Management Commission

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Document Number:

403550250

Date Received:

03/25/2024

## 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: Buckley Well Number: 21-16-2NBH  
Name of Operator: PROVIDENCE OPERATING LLC DBA POCO OPERATING ECMC Operator Number: 10694  
Address: 16400 DALLAS PARKWAY SUITE 400  
City: DALLAS State: TX Zip: 75428  
Contact Name: Meghan Grimes Phone: (303)441-0720 Fax: ( )  
Email: mgrimes@providence-energy.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): 20230033

#### 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: SESW Sec: 20 Twp: 1S Rng: 66W Meridian: 6

Footage at Surface: 655 Feet <sup>FNL/FSL</sup> FSL 2087 Feet <sup>FEL/FWL</sup> FWL

Latitude: 39.945122 Longitude: -104.801385

GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 02/24/2022

Ground Elevation: 5047

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: 21 Twp: 1S Rng: 66W Footage at TPZ: 200 <sup>FSL</sup> 1594 <sup>FWL</sup>

Measured Depth of TPZ: 9471 True Vertical Depth of TPZ: 7460 <sup>FNL/FSL</sup> <sup>FEL/FWL</sup>

Base of Productive Zone (BPZ)

Sec: 16 Twp: 1S Rng: 66W Footage at BPZ: 150 FNL 1594 FWL
Measured Depth of BPZ: 19117 True Vertical Depth of BPZ: 7460 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 16 Twp: 1S Rng: 66W Footage at BHL: 150 FNL 1594 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: ADAMS Municipality: Brighton

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? [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: 11/02/2023

Comments:

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.)

T1S R66W Section 16: S2

Total Acres in Described Lease: 320 Described Mineral Lease is: [X] Fee [ ] State [ ] Federal [ ] Indian

Federal or State Lease #

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 891 Feet  
Building Unit: 1013 Feet  
Public Road: 640 Feet  
Above Ground Utility: 687 Feet  
Railroad: 4648 Feet  
Property Line: 556 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	407-3535	640	T1S R66W Section 16: W2 and Section 21: W2

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: 241 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: 19117 Feet TVD at Proposed Total Measured Depth 7460 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: 608 Feet  No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs 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? 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	A52A	43	0	100	500	100	0
SURF	13+1/2	9+5/8	J55	36	0	2350	1098	2350	0
1ST	8+1/2	5+1/2	P110	23	0	19117	2097	19117	

 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	Upper Arapahoe	130	130	302	302	501-1000	DWR	
Groundwater	Lower Arapahoe	302	302	860	810	501-1000	DWR	
Groundwater	Laramie-Fox Hills	860	860	1192	1192	501-1000	USGS	Top & bottom depth from DWR
Groundwater	Upper Pierre-Pawnee	1192	1192	2432	2318	1001-10000	Other	Upper Pierre Aquifer Water Quality Study, Project #2141
Confining Layer	Pierre Shale	2432	2318	5904	4782			
Hydrocarbon	Sussex	5904	4782	6050	5090			
Confining Layer	Pierre Shale	6050	5090	6385	5348			
Hydrocarbon	Shannon	6385	5348	7035	5854			
Confining Layer	Pierre Shale	7035	5854	8840	7220			
Subsurface Hazard	Sharon Springs	8840	7220	8860	7246			
Hydrocarbon	Niobrara	8860	7246	9235	7422			
Hydrocarbon	Niobrara B	9235	7422	19117	7460			

**OPERATOR COMMENTS AND SUBMITTAL**

Comments



## 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.

<u>COA Type</u>	<u>Description</u>
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Construction	If conductors are preset, operator shall comply with Rule 406.e
Drilling/Completion Operations	Operator will log One (1) additional well with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest well on the pad for a total of Two (2) wells logged during the next rig occupation of this location.
Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 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. 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.
Drilling/Completion Operations	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 is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation. 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 COGCC engineering for approval prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
5 COAs	

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Alternative Logging: One of the first wells drilled on the pad will be 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.`

Total: 1 comment(s)

## ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
403550250	FORM 2 SUBMITTED
403550318	SURFACE AGRMT/SURETY
403550319	OTHER
403550320	DEVIATED DRILLING PLAN
403550322	WELL LOCATION PLAT
403550324	DIRECTIONAL DATA

403620770	OffsetWellEvaluations Data
403883713	OFFSET WELL EVALUATION

Total Attach: 8 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Final Review Completed.	08/09/2024
Permit	•Permitting review complete and task passed.	08/07/2024
Permit	Returned to draft: -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 is incorrect on the Spacing & Formations tab and the Well identified on the Submit tab in the operator comments.	03/22/2024
OGLA	The Commission approved OGD #483938 on November 13, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	12/13/2023

Total: 4 comment(s)