

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:

403692754

Date Received:

02/27/2024

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: Coalbank Well Number: 5
Name of Operator: BAYSWATER EXPLORATION & PRODUCTION LLC ECMC Operator Number: 10261
Address: 730 17TH ST STE 500
City: DENVER State: CO Zip: 80202
Contact Name: Lauren Walsh Phone: (720)881-4502 Fax: ()
Email: lwalsh@bayswater.us

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): 20080034

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: NESE Sec: 6 Twp: 7N Rng: 66W Meridian: 6

Footage at Surface: 2189 Feet FSL 399 Feet FEL

Latitude: 40.602407 Longitude: -104.812470

GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 10/30/2022

Ground Elevation: 5122

Field Name: DJ HORIZONTAL NBRR-FH-CODL-CL Field Number: 16952

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: 5 Twp: 7N Rng: 66W Footage at TPZ: 2018 FNL 160 FWL
Measured Depth of TPZ: 7799 True Vertical Depth of TPZ: 7385 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 4 Twp: 7N Rng: 66W Footage at BPZ: 1966 FNL 160 FEL
Measured Depth of BPZ: 17977 True Vertical Depth of BPZ: 7510 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 4 Twp: 7N Rng: 66W Footage at BHL: 1966 FNL 160 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? [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: 05/05/2023

Comments: 1041WOGLA22-0018 submitted 12/9/2022, approved 5/5/2023

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.)

All; Sec 5, T7N, R66W

Total Acres in Described Lease: 640 Described Mineral Lease is: [X] Fee [] State [] Federal [] Indian

Federal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2251 Feet
Building Unit: 2370 Feet
Public Road: 2178 Feet
Above Ground Utility: 443 Feet
Railroad: 5280 Feet
Property Line: 399 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	407-3551	1280	7N-66W:Sec: 4 & 5

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: 160 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: 404 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: 17977 Feet

TVD at Proposed Total Measured Depth 7510 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: 660 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is 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? 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

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	N/A	42	0	80	400	80	0
SURF	13+1/2	9+5/8	J55	36	0	1500	354	1500	0
1ST	8+1/2	5+1/2	P110	20	0	17977	2364	17977	2500

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
Confining Layer	Quaternary Alluvium	0	0	19	19			
Groundwater	Laramie/Fox Hills	19	19	320	320	1001-10000	Other	CSU - Domestic Water Analysis Report - Larry Moore Well - 176559
Groundwater	Upper Pierre	320	320	1444	1444	1001-10000	Other	Water Quality and the Presence and Origin of Methane in the Upper Pierre Aquifer in Northeastern Weld County, Morgan County and Logan County, Colorado COGCC Project Number 2141 October 2017
Confining Layer	Pierre Shale	1444	1444	3900	3808			
Hydrocarbon	Parkman	3900	3808	4100	4098			
Confining Layer	Pierre Shale	4100	4098	4400	4382			
Hydrocarbon	Sussex	4400	4382	4600	4515			
Confining Layer	Pierre Shale	4600	4515	5000	4917			
Hydrocarbon	Shannon	5000	4917	5100	5036			
Confining Layer	Pierre Shale	5100	5036	7500	7297			
Confining Layer	Sharon Springs	7500	7297	7600	7336			
Hydrocarbon	Niobrara	7600	7336	17977	7510			The TVD of the deepest hydrocarbon zone is the bottom of the well and not the bottom of the formation. The formation is not planned to be exited.

OPERATOR COMMENTS AND SUBMITTAL

Comments: The nearest well in unit per 2-D calculation is the Coalbank 6 @ 404'.
The nearest outside operated well per 2-D vertical calculation is the Regina #7-66-3-10-6N (API: 05-123-46139) AP Status @ 660' E.

This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name Opal Coalbank Pad OGDID #: 485055
Location ID: 485762

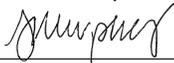
I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Justin Garrett

Title: Sr. Regulatory Analyst Date: 2/27/2024 Email: regulatory@ascentgeomatics.c

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: 4/26/2024

Expiration Date: 12/12/2026

API NUMBER 05 123 52536 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.

<u>COA Type</u>	<u>Description</u>
Planning	Pursuant to Rule 702.b.(2), the approval of this Application for Permit to Drill constitutes a "change in circumstance" to the approved Financial Assurance Plan. The Operator must file a revised Form 3, Financial Assurance Plan, within 10 days of this approval.
Drilling/Completion Operations	Operator will log three (3) additional wells during the first/second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells on each side/for each wellbore orientation of the pad for a total of four wells logged.
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, must contact ECMC engineer prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months, of if there is pressure above 200 psi, after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact ECMC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 2 business days spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j and provide cement coverage from the end of production casing to a minimum of 500' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all aquifers are covered.
4 COAs	

Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>
1 Drilling/Completion Operations	Alternative Logging Program - 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 to 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 clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open hole logs were run.

2	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low- and high-pressure fluid.`
3	Drilling/Completion Operations	Bradenhead Monitoring: Operator acknowledges and will comply with COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.`
4	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.`

Total: 4 comment(s)

ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
403692754	FORM 2 SUBMITTED
403696325	OffsetWellEvaluations Data
403696328	DIRECTIONAL DATA
403696341	DEVIATED DRILLING PLAN
403696344	WELL LOCATION PLAT
403771547	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	04/26/2024
Permit	1041 Information Received Made the following changes with concurrence from the operator: - Revised Mineral Lease Description and acreage Permit Review Complete	04/24/2024
Permit	ON HOLD: This application has been reviewed by CECMC staff and cannot be approved based on the information submitted; therefore, the CECMC is placing this form ON HOLD until additional information is received from the applicant. In compliance with § 24-65.1-108(1), C.R.S., the CECMC is providing this written request for all additional information necessary for the CECMC to respond to this application. The applicant may provide all requested additional information to CECMC via email. Upon receipt of all requested information, the CECMC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review. If the applicant no longer requires this application be approved, the applicant may request to withdraw the application. In addition to all standard required information and attachments, the CECMC hereby confirms the following information is necessary for review: 1. Provide revised mineral lease description	04/23/2024
Permit	Made the following changes with concurrence from the operator: - Revised Spacing Order # - Revised Unit Configuration	04/18/2024
Permit	Emailed operator for the following: - Confirm revising spacing order No. to current DSU - Confirm revising unit configuration	04/11/2024
Engineer	Offset Wells Evaluated.	03/12/2024
OGLA	The Commission approved OGDG #485055 on December 13, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	02/28/2024

Total: 7 comment(s)