

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:

402904433

Date Received:

12/23/2021

#### 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: Topaz East Well Number: 12  
Name of Operator: BAYSWATER EXPLORATION & PRODUCTION LLC COGCC 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

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20080034

#### WELL LOCATION INFORMATION

##### Surface Location

QtrQtr: Lot 6 Sec: 6 Twp: 7N Rng: 65W Meridian: 6  
Footage at Surface: 1400 Feet FSL 399 Feet FWL  
Latitude: 40.601095 Longitude: -104.714413  
GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 08/29/2019  
Ground Elevation: 4946  
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: 6 Twp: 7N Rng: 65W Footage at TPZ: 510 FNL 470 FWL  
Measured Depth of TPZ: 8666 True Vertical Depth of TPZ: 7289 FNL/FSL FEL/FWL

###### Base of Productive Zone (BPZ)

Sec: 5 Twp: 7N Rng: 65W Footage at BPZ: 510 FNL 470 FEL  
Measured Depth of BPZ: 18464 True Vertical Depth of BPZ: 7189 FNL/FSL FEL/FWL

###### Bottom Hole Location (BHL)

Sec: 5 Twp: 7N Rng: 65W Footage at BHL: 510 FNL 470 FEL  
FNL/FSL FEL/FWL

#### LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELDMunicipality: 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: 10/28/2020

Comments: 1041WOGLA20-0068 submitted 8/3/2020, approved 10/28/2020.

## 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.)

7N 65W Section 5: All

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

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 954 Feet  
Building Unit: 1056 Feet  
Public Road: 389 Feet  
Above Ground Utility: 376 Feet  
Railroad: 5280 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.

Property Line: 334 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	407-2188	1280	7N-65W: 5 All, 6 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: 470 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: 615 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: 18464 Feet

TVD at Proposed Total Measured Depth 7189 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: 930 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>
CONDUCTOR	26	16	N/A	42	0	80	400	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1500	660	1500	0
1ST	8+1/2	5+1/2	HCP110	20	0	18464	2554	18464	2500

☐ 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	Quaternary Alluvium	15	15	40	40	501-1000	Groundwater Sample	Sample Site ID 753695, 750020
Groundwater	Laramie/Fox Hills	40	40	480	480	501-1000	Groundwater Sample	Sample Site ID 766369, 753716
Groundwater	Upper Pierre	480	480	1673	1665	501-1000	Other	Area Report Microsoft PowerPoint - UPWQ_PPT_01-29Hearing
Confining Layer	Pierre Shale	1673	1665	4273	3973			
Hydrocarbon	Parkman	4273	3973	4673	4308			
Hydrocarbon	Sussex	4873	4483	5273	4761			
Hydrocarbon	Shannon	5673	5121	5973	5379			
Confining Layer	Pierre Shale	5973	5379	8173	7118			
Confining Layer	Sharon Springs	8173	7118	8273	7155			
Hydrocarbon	Niobrara	8273	7155	18464	7189			Potential Flow Formaton Table: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 19 of the 20 permitted wells at this location are being reconfigured: 8 going east thru Sections 6 & 5, 7N-65W; 11 wells going west thru 1 & 2, 7N-66W, and abandoning the Topaz 3 (API: 05-123-51536).

The SHL is not changing. There have been no new buildings constructed and no changes to the surrounding land use. The well site has not been constructed. There are also no changes to the Surface & Minerals or Cultural Setbacks. All previously submitted notices, Surface Use Agreements, and letters are also still valid.

Well name changes from Topaz 4 to Topaz East 12. Revised plat and directional information attached.

Vertex point: 510' FNL, 0' FEL, Sec 6, T7N, R65W

The nearest well in unit per 2-D calculation is updated to the Topaz East 13 (API: 05-123-51538) @ 615'.  
Nearest permitted or existing wellbore belonging to another operator per 2-D calculation is the Rusch 1X-HNC-04-07-65 (API: 05-123-51559) XX Status @ 930'.

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

OGDP ID#: \_\_\_\_\_ OGDP Name: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Location ID: 478999 Location Name: Topaz 6-I Pad

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: 12/23/2021 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 COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  \_\_\_\_\_ Director of COGCC Date: 1/30/2022

Expiration Date: 01/29/2025

**API NUMBER**

05 123 51537 00

### **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.

### **Condition of Approval**

**COA Type**

**Description**

Construction	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017)
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 COGCC 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 COGCC 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 COGCC 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.
3 COAs	

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	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.
2	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.
3	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.
4	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.

Total: 4 comment(s)

## Attachment List

<u>Att Doc Num</u>	<u>Name</u>
402904433	FORM 2 SUBMITTED
402904577	WELL LOCATION PLAT
402904581	DEVIATED DRILLING PLAN
402904653	DIRECTIONAL DATA
402908288	OffsetWellEvaluations Data
402941509	OFFSET WELL EVALUATION

Total Attach: 6 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	01/24/2022
Permit	Received confirmation from the operator to add the built location COA Passed Permit Review	01/19/2022
Permit	-Waiting on the operator confirmation for the following: 1.Adding the built location COA	01/18/2022
OGLA	The Location and its associated Form 2A materials was fully reviewed during the review of this APD. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. OGLA task passed.	01/05/2022
Engineer	Offset Wells Evaluated.	12/29/2021

Total: 5 comment(s)