

FORM

2

Rev
02/20

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:

402442091

APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate
TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____Refiling ☒

Date Received:

07/29/2020

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Calvary Farms

Well Number: F-20-21HN

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: Mark Brown

Phone: (303)893 2503

Fax: (303)893 2508

Email: mbrown@bayswater.us

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20080034

WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 19 Twp: 7N Rng: 65W Meridian: 6

Latitude: 40.564396

Longitude: -104.698020

Footage at Surface: 1248 Feet FNL/FSL FNL 413 Feet FEL/FWL FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4878

County: WELD

GPS Data: GPS Quality Value: 1.9 Type of GPS Quality Value: PDOP Date of Measurement: 06/01/2017

Instrument Operator's Name: Alec Shull

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.
 Footage at Top of Prod Zone: FNL/FSL FNL 470 FWL 1451 FNL 470 FEL
 Sec: 20 Twp: 7N Rng: 65W Sec: 21 Twp: 7N Rng: 65W

LOCAL GOVERNMENT INFORMATION

County: WELD

Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.

☒ Yes ☐ NoIf 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 local government siting permit type is: WOGLA

The local government siting permit was filed on: 03/07/2018

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WOGLA18-0019 Submitted 3/7/18, Approved 3/27/18

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: ☒ is the mineral owner beneath the location.

(check all that apply)

☒ is committed to an Oil and Gas Lease.

☒ has signed the Oil and Gas Lease.

☐ is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

NW/4, Sec 20, T7N, R65W (and other lands)

Total Acres in Described Lease: 160 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	<u>748</u> Feet
Building Unit:	<u>748</u> Feet
High Occupancy Building Unit:	<u>5280</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>399</u> Feet
Above Ground Utility:	<u>379</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>407</u> Feet
School Facility:	<u>5280</u> Feet
School Property Line:	<u>5280</u> Feet
Child Care Center:	<u>5280</u> Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:

- ☒ Buffer Zone
- ☐ Exception Zone
- ☐ Urban Mitigation Area

- Buffer Zone— as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government:

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 12/21/2017

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 165 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary	470	Feet (Enter 5280 for distance greater than 1 mile.)
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Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number:

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	407-2551	1280	Sec 20, 21: All

DRILLING PROGRAM

Proposed Total Measured Depth: 17105 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: 188 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 Operations Plan)

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

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	42	0	80	400	80	0
SURF	13+1/2	9+5/8	36	0	1500	660	1500	0
1ST	8+1/2	5+1/2	20	0	17105	2732	17105	

☐ Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☒ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number _____

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments	<p>Refile comment: This Form 2 is being submitted as a refile of API 05-123-48148.</p> <p>19-D Pad: There have been no new buildings constructed and no changes to the surrounding land use, well construction plans, or mineral lease description. The well site has been constructed. The Calvary Farms A-20-21HN (API: 05-123-48145), Calvary Farms B-20-21HC (API: 05-123-48147), Calvary Farms BA-20-21HN (API: 05-123-48150), and Calvary Farms C-20-21HN (API: 05-123-48149) wells have been drilled.</p> <p>As per the COGCC Refile Guidance Document dated March 20, 2017, no new plats or directional plans are required as the locations of the proposed wells have not moved. There are also no changes to the Surface & Minerals, Spacing & Formations, casing/cementing program. All previously submitted notices, Surface Use Agreements, and letters are also still valid.</p> <p>The Cultural Distances information is unchanged and includes School Facility information. Offset Well Evaluation information has been updated to reflect work done prior to drilling the existing wells on the pad. Nearest well information has been updated to reflect current guidance and updated well statuses.</p> <p>Local Government Information has been added to reflect approved WOGLA.</p> <p>Nearest well in unit is the Calvary Farms EA-20-21 (API: 05-123-48151) per anti-collision. Nearest permitted or existing wellbore belonging to another operator is the Myers 1 (API: 05-123-11653) PA Status per anti-collision.</p> <p>The Calvary Farms C-20-21HN (API: 05-123-48149) well was OH logged with resistivity LWD.</p>
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This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 457898

Is this application being submitted with an Oil and Gas Location Assessment application? No

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: Regulatory Analyst Date: 7/29/2020 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: 11/30/2020

Expiration Date: 11/29/2022

API NUMBER

05 123 48148 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.

<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).
Interim Reclamation	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016, revised October 6, 2016).
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, 6 months 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 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j and provide cement coverage from the end of production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all aquifers are covered.

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 – An existing well on the pad was 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)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
402442091	FORM 2 SUBMITTED
402455265	OffsetWellEvaluations Data
402542796	OFFSET WELL EVALUATION

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	11/12/2020
Permit	-Passed Permit Review	11/10/2020
Permit	Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, and welfare and the environment, including wildlife resources set by SB 19-181. The Objective Criteria Review Memo (Doc# 1347993) can be found in the document file for Location ID 457898.	11/10/2020
Permit	-Received consent from the operator to add/ change the following: 1. Added the built location COA 2. Updated the open hole logging BMP 3. Added the distance to the nearest well in the formation	10/27/2020
Permit	-Waiting on the operator's response about the following: 1.Adding the built location COA 2.Updating the open hole logging BMP 3.Adding the distance to the nearest well in the formation	10/23/2020
OGLA	IN PROCESS comment - Received requested information from operator on 10/01/2020. COGCC review will resume and be conducted within 60 days (by 11/30/2020).	10/01/2020
OGLA	<p>ON HOLD: This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is placing this form ON HOLD until additional information is received from the applicant.</p> <p>In compliance with § 24-65.1-108(1), C.R.S., the COGCC is providing this written request for all additional information necessary for the COGCC to respond to this application. The applicant may provide all requested additional information to COGCC via email. Upon receipt of all requested information, the COGCC 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.</p> <p>In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary for review:</p> <p>1. This Form 2 application meets one or more Objective Criteria. The applicant must address the Objective Criteria on a Form 4 Sundry Notice submitted to the related Location ID (Loc ID# 457898). The Form 4 shall include updated Best Management Practices to address the following:</p> <p>a. Pertaining to Objective Criteria #1: Provide an updated lighting BMP, specifically addressing that lights will be directed away from building units and/or be shielded.</p> <p>b. Pertaining to Objective Criteria #1: Provide an updated noise mitigation BMP, specifically addressing what sides and heights the sound walls will be.</p> <p>c. Pertaining to Objective Criteria #5c & #8: Provide an updated stormwater management BMP providing examples (including but not limited to) of what types of controls are to be implemented on the location.</p> <p>d. Pertaining to Objective Criteria #5c & #8: Provide a BMP for any berm and liner containment surrounding the separators.</p>	09/30/2020

	<p>e. Pertaining to Objective Criteria #5c & #8: Provide a BMP for any liner planned for use under the drilling rig.</p> <p>f. Pertaining to Objective Criteria #5c & #8: Provide a BMP for remote monitoring/shut-in capabilities at the location.</p> <p>2. The following informational questions relating to the Objective Criteria Review must also be answered, but may be answered in direct response to this email, rather than via the above mentioned Form 4 Sundry:</p> <p>a. Pertaining to Objective Criteria #1: Is an electric drilling rig planned for this location, as discussed in the Noise Mitigation BMP on the originally approved Form 2A?</p> <p>b. Pertaining to Objective Criteria #1: Are odor neutralizers planned for this location to be used with the planned oil-based mud?</p> <p>c. Pertaining to Objective Criteria #1: Describe any outreach to surrounding building units since the 11/9/2018 Amended Form 2A approval.</p> <p>d. Pertaining to Objective Criteria #1: Has a meeting with the surface owner to determine a fencing plan occurred?</p> <p>e. Pertaining to Objective Criteria #5c and #8: Is there an Emergency Response Plan in place for this location? If so, with which local Emergency Responders?</p>	
OGLA	COGCC staff reviewed and considered all public comments received for this Form 2. The Form 2 and the related Form 2A were reviewed under the Objective Criteria, as set out under SB 19-181, that allows for permitting to continue while new rules are being considered.	09/08/2020
Engineer	Offset Wells Evaluated	09/02/2020
Permit	Passed Completeness.	08/18/2020
Permit	Buffer Zone Notification date not filled out. Return to draft.	08/06/2020
Permit	Surface & Minerals tab does not match approved 2A. Return to draft.	08/04/2020

Total: 12 comment(s)