

FORM  
2

Rev  
08/13

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:

400448409

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

10/29/2013

Well Name: Windsor LV

Well Number: G-14H

Name of Operator: BAYSWATER EXPLORATION AND PRODUCTION LLC

COGCC Operator Number: 10261

Address: 730 17TH ST STE 610

City: DENVER

State: CO

Zip: 80202

Contact Name: Sonia Stephens

Phone: (303)918-7128

Fax: ( )

Email: regulatory@petro-fs.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20080034

WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 14 Twp: 6N Rng: 67W Meridian: 6

Latitude: 40.490420

Longitude: -104.852260

Footage at Surface: 1405 feet FNL/FSL FNL 265 feet FEL/FWL FEL

Field Name: Wattenberg

Field Number: 90750

Ground Elevation: 4848

County: WELD

GPS Data:

Date of Measurement: 04/26/2013

PDOP Reading: 2.7

Instrument Operator's Name: Wyatt Hall

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

2620 FNL 460 FEL 2620 FNL 460 FWL  
Sec: 14 Twp: 6N Rng: 67W Sec: 14 Twp: 6N Rng: 67W

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: Yes

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.)

T6N, R67W, Sec. 14: N/2

Total Acres in Described Lease: 320 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: 460 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 484 Feet  
Building Unit: 580 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 254 Feet  
Above Ground Utility: 293 Feet  
Railroad: 5280 Feet  
Property Line: 265 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, and Designated Outside Activity Area - 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: 09/25/2013

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 440 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

The proposed well bore spacing unit is S/2N/2 and the N/2S/2 of Sec. 14, T6N, R67W, consisting of 320 acres, laydown.

## 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		320	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 11844 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 440 Feet (Including plugged wells)

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 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? No

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
SURF	12+1/4	9+5/8	36	0	700	372	700	0
1ST	8+3/4	7	26	0	7600	572	7600	0
1ST LINER	6+1/8	4+1/2	11.6	6600	11844			

☒ 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>This well is being added to a previously approved location.</p> <p>Operator requests an exception location per rule 318A.a.; well will not be drilled in a legal drilling window.</p> <p>Nearest well is the Windsor LV F-14H on the same pad.</p> <p>This location is not an UMA.</p> <p>Pre-application notifications and Rule 305.a.(2) Exception notifications sent to Surface Owners; copies on file w/ Bayswater.</p> <p>Surface owner has waived the 30 day notification period in the SUA, (highlighted on pg. 2, item 11). A map is attached to the SUA as it describes county lots.</p> <p>Surface owner has signed the 318A.a. Exception Location Consent form, it is attached.</p> <p>The Operator has signed 318A.e.(6) mineral owner waivers for the proposed spacing unit on file.</p> <p>Apollo is in the process of rescinding their permits for the Windsor LV 31-14 pad in the NWNE.</p> <p>Form 2A submitted under old rules, Operator will comply w/ all the requirements for an APD within the buffer zone.</p>
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This application is in a Comprehensive Drilling Plan No CDP #: \_\_\_\_\_

Location ID: 434454

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: Sonia stephens

Title: Regulatory Technician Date: 10/29/2013 Email: regulatory@petro-fs.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 COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 3/8/2014

Expiration Date: 03/07/2016

API NUMBER

05 123 39054 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>
	<p>Operator acknowledges the proximity of the listed non-producing (P&amp;A) well(s). Operator agrees to provide mitigation Option 3 per the DJ Basin Horizontal Offset Policy, ensure all applicable documentation is submitted, and submit Form 42 "OFFSET MITIGATION COMPLETED" for the remediated well(s), referencing the API Number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of the proposed well(s).</p> <p>Kadlub/Miller #1 (API #123-11517) (cannot confirm that sufficient formation coverage or aquifer coverage exist)</p> <p>Rutz #1 (API #123-11850) (cannot confirm that sufficient formation coverage or aquifer coverage exist)</p>
	<p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.</p> <p>2) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.</p> <p>3) Comply with Rule 321. Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.</p>
	<p>Operator acknowledges the proximity of the listed non-operated (operated by others) well(s). Operator agrees to provide mitigation Option 1 or 2 per the DJ Basin Horizontal Offset Policy, ensure all applicable documentation is submitted, and submit Form 42 "OFFSET MITIGATION COMPLETED" for the remediated well(s), referencing the API Number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of the proposed well(s).</p> <p>Miller #1 (API #123-11822) (cannot confirm that sufficient aquifer coverage exists)</p> <p>Simpson #1 (API #123-11328) (cannot confirm that sufficient aquifer coverage exists)</p>
	<p>Rule 317.o Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Form 5 for every well on the pad shall identify which well was logged.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	<p>Noise and Light</p> <p>All operations will be subject to the maximum permissible noise levels of 55 db, as measured at the nearest Building Unit, and shall be mitigated by either the use of a hay bale or commercial wall sound barrier. Baseline rig noise levels will be obtained prior to moving to location in order to properly plan the mitigation measures necessary for this sight. Light sources will be directed downwards and away from occupied Building Units when possible. There will be no permanently installed lighting on site.</p>
2	Planning	<p>Fence the well site after drilling to restrict public and wildlife access.</p> <p>Keep well site location, the road, and the pipeline easement free of noxious weeds, litter and debris.</p> <p>Spray for noxious weeds, and implement dust control, as needed.</p> <p>Operator will not permit the release or discharge of any toxic or hazardous chemicals or wastes on Owner's Land.</p> <p>Construct and maintain gates where any roads used by operator, its employees, or contractors cross through fences on the leased premises.</p>

3	Planning	Closed Loop Drilling: A closed loop drilling system will be used to preclude the use of earthen pits.
4	Planning	Multiwell Pads: A total of nine (9) wells will be developed from this pad by utilizing directional drilling to reduce cumulative and adverse impacts on human and wildlife populations.
5	Planning	BOPE: Blowout prevention equipment will include a double ram and an annular preventer. The drilling company will have a valid blowout prevention certification. Adequate BOPE will be used for well servicing operations.
6	Planning	Fencing: The well site will be fenced after drilling to restrict public and wildlife access.
7	Planning	Control of Fire Hazards: All materials deemed as fire hazards, will be kept at a distance of 25 feet from the wellhead and equipment. Electrical equipment shall comply with API RP 500 and will comply with the current national electrical code.
8	Planning	. Load lines: Load lines shall be bullplugged or capped.
9	Planning	Guy line anchors: All guy line anchors will be brightly marked as per Rule 604.c(2)Q.
10	Planning	Well Site Abandonment: Within 90 days of plugging and abandonment, the well site will be cleared of non-essential equipment, trash and debris. The wellbore will be identified with a permanent monument containing the well number and date of the plug and abandonment
11	Planning	Development of existing well pads: Plans will be considered for the development of multiple reservoirs by drilling on existing pads. Multiple completions and commingling within existing well bores will also be reviewed to minimize disturbance area.
12	Planning	Site-specific Measures: During the Rule 306 consultation, a mitigation plan to address local concerns may be developed for specific considerations not already addressed by the BMPs.
13	Traffic control	Traffic: A traffic and access plan will be coordinated with the Town of Severance prior to commencement of construction and drilling operations.
14	Traffic control	Access roads: During construction, all leasehold roads are to be constructed to accommodate local emergency vehicle access requirements and maintained in good condition. Spray for noxious weeds and implement dust control as needed.
15	General Housekeeping	Trash: Well site location, road and the pipeline easement will be kept free of noxious weeds, litter and debris. All materials connected with operations shall be removed from the property.
16	Storm Water/Erosion Control	Use water bars, and other measures to prevent erosion and non-source pollution. Implement and maintain BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate gas and water gathering lines whenever feasible, and mitigate any erosion problems that arise due to the construction of any pipeline(s).
17	Material Handling and Spill Prevention	Leak Detection Plan: The pumper will visit the location daily to visually monitor the production facilities for leaks.
18	Construction	Remove only the minimum amount of vegetation necessary for the construction of roads and facilities. Conserve topsoil during excavation and reuse as cover on disturbed areas to facilitate regrowth of vegetation. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.
19	Construction	Berm Construction: Berms will be constructed around all tanks and shall enclose an area sufficient to provide secondary containment for 150% of the largest single tank. Containment berms shall be constructed of steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation. Berms will be visually checked periodically to ensure proper working conditions.

20	Emissions mitigation	Green Completions: Measures will be undertaken to reduce emissions of salable gas and condensate vapors during cleanout and flowback operations prior to the well being placed on production. Test separators, associated flow lines and sand traps shall be installed on-site to accommodate Green completions techniques. In the anticipated absence of a viable gas sales line, the flowback gas shall be thermally oxidized in an ECD which will be installed and kept in operable condition for the first 90 days of production. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustion where non-combustible gases are present.
21	Drilling/Completion Operations	Bradenhead Monitoring: Pursuant to COGCC 207.a. ("Policy"), Bayswater Exploration & Production, LLC, acknowledges and will comply with said policy for Bradenhead Monitoring during hydraulic fracturing treatments in the Greater Wattenberg Area (GWA), dated May 29, 2012.
22	Drilling/Completion Operations	Anti-collision: Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.
23	Interim Reclamation	Utilize only such area around each producing well as is reasonably necessary. Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.
24	Final Reclamation	A closed-loop drilling mud system will be used to preclude the use of an earthen reserve pits when available. Light Sources will likewise be directed downwards, and away from occupied structures where possible. Once the drilling and completions rigs leave the site, there will be no permanently installed lighting on site.
25	Final Reclamation	Utilize only such area around each producing well as is reasonably necessary. Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.

Total: 25 comment(s)

### **Applicable Policies and Notices to Operators**

Notice Concerning Operating Requirements for Wildlife Protection.

### **Attachment Check List**

<u>Att Doc Num</u>	<u>Name</u>
400448409	FORM 2 SUBMITTED
400454601	WELL LOCATION PLAT
400506500	PROPOSED SPACING UNIT
400507716	SURFACE AGRMT/SURETY
400508012	EXCEPTION LOC WAIVERS
400508046	EXCEPTION LOC REQUEST
400549177	DEVIATED DRILLING PLAN
400549178	DEVIATED DRILLING PLAN
400566779	DIRECTIONAL DATA

Total Attach: 9 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Directional data shows wellbore for the LV F-14H well. The correct directional data sheet has been uploaded again. (Internal Laserfische issues kept it from correcting.) Removed incorrect and extra DS Data sheets. Final review complete.	3/5/2014 10:12:12 AM
Permit	Operator shall comply with Buffer Zone Move-In, Rig-Up Notice Policy dated 12-16-2013.	2/10/2014 11:09:31 AM
Permit	Added related 2A doc number and notified opr. Wells are being twinned to previously permitted wells on pad. Corrected Drilling Plan Data Sheet Corrected duplicated well name in Offset well evaluation from LV F-14H to Rutz #1. Distances to nearest wellbores is incorrect. Opr notified.	2/10/2014 9:10:20 AM
Permit	Passed completeness by Rob Herbert.	2/3/2014 10:04:23 AM
Permit	Returned to draft: The proposed total measured depth in the attached and uploaded Directional Data file (11,500) does not match the proposed total measured depth in the Drilling tab and Deviated Drilling Plan (12,027) or in the Casing tab (11,884). Please resolve and resubmit.	1/31/2014 3:05:40 PM
Permit	Returned to draft: 1) Need buffer zone mitigation BMP's. 2) Xcel template does not match PDF of dev. drlg. plan. TD on drilling tab is 12027' and on casing tab TD is 11844' which matches the PDF of dev. drlg. plan. 3) Lease descr. is for ALL Sec. 14 but 320 acres? 4) Check NO for submission with related 2A; delete related 2A (already approved).	11/7/2013 1:53:23 PM
Permit	Returned to draft: Surface owner is mineral owner. Does all three need checked? Needs corrected distance to unit boundary. PSU not at 5280' Needs clearer description of PSU. Needs Groundwater changed from state to GWA. Needs Bradenhead & Anti-Collision BMP's. Needs to highlight waiver on SUA or provide as exception location waiver. Needs to clean up comments. Needs Direction Data template needs uploaded.	11/5/2013 10:53:40 AM
Permit	Returned to DRAFT. The Proposed Spacing unit map is unacceptable. The Cultural Setbacks shows Exception zone but appears to be in the Buffer zone.	10/30/2013 7:13:24 AM

Total: 8 comment(s)