

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:

400566593

Date Received:

04/20/2015

APPLICATION FOR PERMIT TO:

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

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

Refiling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: AFTON

Well Number: 12-16H-5

Name of Operator: MENDELL FINISTERRE II LLC

COGCC Operator Number: 10474

Address: 2162 W EISENHOWER BLVD

City: LOVELAND State: CO Zip: 80537

Contact Name: Paul Gottlob

Phone: (720)420-5747

Fax: (720)420-5800

Email: paul.gottlob@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130072

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 12 Twp: 1S Rng: 68W Meridian: 6

Latitude: 39.973660

Longitude: -104.942050

Footage at Surface: 623 feet FNL/FSL FSL 495 feet FEL/FWL FEL

Field Name: SPINDLE

Field Number: 77900

Ground Elevation: 5153

County: ADAMS

GPS Data:

Date of Measurement: 07/01/2013 PDOP Reading: 2.1 Instrument Operator's Name: Adam Kelly

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

460 FSL 0 FEL 460 FNL 0 FEL  
Sec: 12 Twp: 1S Rng: 68W Sec: 12 Twp: 1S Rng: 68W

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.)

E/2, SEC. 12, T1S, R68W

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: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 285 Feet  
Building Unit: 385 Feet  
High Occupancy Building Unit: 3285 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 480 Feet  
Above Ground Utility: 216 Feet  
Railroad: 1480 Feet  
Property Line: 158 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: 07/24/2013

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 08/26/2014

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 482 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

Proposed Spacing Unit: E/2 of E/2 of Section 12, T1S, R68W & W/2 of W/2 of Section 7, T1S, R67W.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
CODELL	CODL		320	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 12643 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 482 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? No

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	13+1/2	9+5/8	36	0	1250	687	1250	0
1ST	8+3/4	7	29	0	8309	831	8309	3000
1ST LINER	6+1/8	4+1/2	13.5	7530	12643			

☒ 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 Operator respectfully requests a Rule 318A.c and 604.a.(1) exception location. This location is greater than 50' from an existing well and within 500' of a building unit. Requests and waivers are attached. Well pad is already built and the Afton 12-16H-4 has been drilled and is producing. Pad slot #5.

This well is a Rule 318A.a.(4)D Horizontal GWA Well; Proposed Spacing Unit: E/2 of E/2 of Sec. 12, T1S, R68W & W/2 of W/2 of Sec. 7, T1S, R67W. PSU Map and Letter are attached.

The SUA was signed in May of 2013 and the new setbacks rules became effective in August 2013 therefore Mendell is requesting an exception to Rule 604.a.1 per Rule 604.b.(2). A Sundry Form 4 Doc # 400827392 was submitted updating the Multi-Well Plan for the associated pad.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 434921

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: Paul Gottlob

Title: Regulatory & Engin. Tech. Date: 4/20/2015 Email: paul.gottlob@iptenergyservices

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: 7/31/2015

Expiration Date: 07/30/2017

**API NUMBER**

05 001 09850 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.

#### COA Type

#### Description

	Operator must demonstrate and/or provide adequate uphole isolation of Elms #2 123-08919 prior to the hydraulic stimulation of this well (1240'- 180'). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.
	1) Submit Form 42 electronically to COGCC 48 hours prior to spud. 2) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with cement bond log. 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.

### Best Management Practices

#### No BMP/COA Type

#### Description

1	Planning	RULE 604.c.E: This is a multi-well pad. 2 wells have already been permitted, 1 drilled. 2 more including this one are being permitted and 4 future to be permitted.
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2	Traffic control	RULE 604.c.D: If required by the local government, a traffic plan shall be coordinated with the local jurisdiction prior to commencement of move in and rig up. Any subsequent modification to the traffic plan must be coordinated with the local jurisdiction.
3	Traffic control	RULE 604.c.S: All leasehold roads have been constructed to accommodate local emergency vehicle access requirements, and are maintained in a reasonable condition. Access road is built and will be maintained.
4	General Housekeeping	RULE 604.c.P: All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.
5	Material Handling and Spill Prevention	RULE 604.c.F: The Operator has developed a plan to monitor Production Facilities on a regular schedule to identify fluid leaks. Pumper will inspect all joints and tanks for fluid leaks on a daily basis.
6	Material Handling and Spill Prevention	RULE 604.c.G: Berms or other secondary containment devices in the production facility have been constructed around crude oil, condensate, and produced water storage tanks and enclose an area sufficient to contain and provide secondary containment for one-hundred fifty percent (150%) of the largest single tank. Berms or other secondary containment devices are sufficiently impervious to contain any spilled or released material. All berms and containment devices are inspected at regular intervals and maintained in good condition. No potential ignition sources are installed inside the secondary containment area unless the containment area encloses a fired vessel. Refer to API Bulletin D16: Suggested Procedure for Development of a Spill Prevention Control and Countermeasure Plan.
7	Material Handling and Spill Prevention	RULE 604.c.R: All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). The operator shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule. This rule does not include later amendments to, or editions of, the NFPA Code 30. NFPA Code 30 may be examined at any state publication depository library. Upon request, the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203, will provide information about the publisher and the citation to the material.
8	Construction	RULE 604.c.M: Unless otherwise requested by the Surface Owner, well sites constructed within Designated Setback Locations, shall be adequately fenced to restrict access by unauthorized persons.
9	Construction	RULE 604.c.Q: All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.
10	Construction	RULE 604.c.V: Where possible, operators shall provide for the development of multiple reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores (see Rule 322). If any operator asserts it is not possible to comply with, or requests relief from, this requirement, the matter shall be set for hearing by the Commission and relief granted as appropriate.  Construction – Rule 604.c.V: Operator will comply with rule.
11	Noise mitigation	RULE 803: Lighting abatement measures shall be implemented, including the installation of lighting shield devices on all of the more conspicuous lights, low density sodium lighting where practicable.
12	Noise mitigation	RULE 604.c.A: Rig shrouding will be used as well as sound walls during drilling and completion activities to provide noise relief, as the nearest building unit is 385' away.
13	Emissions mitigation	604.c.(2)C.i. Green Completions - Emission Control System: The existing producing well is tied into a gas sales line which this well will also be tied into.
14	Odor mitigation	RULE 805: Oil & gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare. Dust control will be handled by water spreading as necessary. Odors will be controlled by engine filters and well gas by flaring temporarily until well is connected to the gas sales line.
15	Drilling/Completion Operations	RULE 604.c.B: A Closed Loop Drilling System will be used and no pits.

16	Drilling/Completion Operations	RULE 604.c.H: Blowout prevention equipment for drilling operations in a Designated Setback Location shall consist of (at a minimum): i. Rig with Kelly: Double ram with blind ram and pipe ram; annular preventer or a rotating head. ii. Rig without Kelly: Double ram with blind ram and pipe ram. Mineral Management certification or Director approved training for blowout prevention shall be required for at least one (1) person at the well site during drilling operations.
17	Drilling/Completion Operations	RULE 604.c.I: Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
18	Drilling/Completion Operations	RULE 604.c.L: Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director. None planned for this well.
19	Drilling/Completion Operations	RULE 604.c.N: Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado. An emergency response plan has been generated for this site.
20	Drilling/Completion Operations	RULE 604.c.O: All loadlines shall be bullplugged or capped.
21	Drilling/Completion Operations	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 "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.
22	Drilling/Completion Operations	RULE 317.r: Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within 150' of the proposed well(s). 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 well-path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have Gyro Surveys conducted to verify the BHL. 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 Form 5 if required.
23	Final Reclamation	RULE 604.c.T: Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.
24	Final Reclamation	RULE 604.c.U: The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.

Total: 24 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>
400566593	FORM 2 SUBMITTED
400794767	OTHER
400796239	WELL LOCATION PLAT
400826299	OffsetWellEvaluations Data
400827357	EXCEPTION LOC WAIVERS
400827359	EXCEPTION LOC REQUEST
400827735	PROPOSED SPACING UNIT
400830757	SURFACE AGRMT/SURETY
400832649	DIRECTIONAL DATA
400832650	DEVIATED DRILLING PLAN
400832835	EXCEPTION LOC REQUEST

Total Attach: 11 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	<p>Please review the production reports for the existing on site wells. It looks like there is an existing sales line. If there is an existing line, please re-write the Emmisions Mitigation/Green Completions BMP appropriately.</p> <p>Please elaborate on Line #14 - Rule 805, to state how odors and dust will be mitigated.</p> <p>Completed per Operator email - 07/28/2015</p>	7/21/2015 3:32:35 PM
OGLA	<p>Need site specific BMPs for the following: 604.c.S 604.c.F 604.c.V 604.c.A</p> <p>Line #12 - Please separate the Lighting and noise BMPs and cite the correct Rule for Lighting Mitigation, Rule 803.</p> <p>Remove the following BMPs as they are for the Location 2A and not the APD Form 2 604.c.G 604.c.R</p> <p>Completed per Operator email - 07/28/2015</p>	7/21/2015 12:53:27 PM
Final Review	Added OGLA task for Designated Setback Location BMP review. Form placed ON HOLD.	7/10/2015 2:24:43 PM
Permit	Final Review Completed.	7/8/2015 11:10:32 AM
Permit	Per operator changed Open Hole Logging BMP to correct one for Multi-well HZ pad. Permitting Review Complete.	6/12/2015 9:20:15 AM
Permit	Open Hole Logging BMP submitted by operator.	6/12/2015 9:20:03 AM
Permit	Form 2A Expiration: 10/31/2016. Operator measured to the 001-09778 AFTON #12-16H-4 at 482'.	6/12/2015 9:18:28 AM

LGD	This site is served by an existing access point. No new access point is approved/assumed by this permit. A signed Memorandum of Understanding (MOU) must be in place with Adams County prior to the beginning of any production activity. Per this MOU, Adams County requires permits for all Oil and Gas Drilling Production Activity. Please contact Mr. Mark Russell at 720-523-6821 for information regarding these permits and the related fees.	5/8/2015 3:10:40 PM
Permit	Passed completeness.	4/29/2015 11:38:12 AM
Permit	Returned to draft per operator's request.	4/29/2015 11:17:45 AM
Permit	Missing attachments for a Deviated Drilling Plan and the Directional Data. Return to draft.	4/29/2015 9:25:13 AM
Permit	1.) The SUA is not properly redacted as the boxes can be moved. Request for proper redaction. 2.) Date needs to be provided for Rule 305.a.(1) & 305.a.(2) under the Cultural Setbacks tab 3.) Casing and Proposed Total Measured Depth should match the Directional Data 4.) Rule 318A.a should be checked under the Exceptions tab 5.) Please attach an amended Exception Location Request letter to include Rule 318A.a Return to draft.	4/24/2015 1:04:08 PM

Total: 12 comment(s)