



**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.)

SW/4 NE/4; SE/4 NW/4; LOT 2; LOT 3, NE/4 SW/4 Section 7, T34N, R6W (SUL) N.M.P.M.

Total Acres in Described Lease: 193 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # 94/2153-S

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 344 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 970 Feet

Building Unit: 1268 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1245 Feet

Above Ground Utility: 456 Feet

Railroad: 5280 Feet

Property Line: 404 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: \_\_\_\_\_

**SPACING and UNIT INFORMATION**

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 330 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 685 Feet (Enter 5280 for distance greater than 1 mile.)

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

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
FRUITLAND COAL	FRLDC	112-215	320	7U: E/2

**DRILLING PROGRAM**

Proposed Total Measured Depth: 3514 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 330 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 608

### DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

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	8+5/8	24	0	508	210	508	0
1ST	7+7/8	5+1/2	15.5	0	3514	320	3514	0

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

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

Location ID: \_\_\_\_\_

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: \_\_\_\_\_ Print Name: Patti Campbell

Title: Regulatory Analyst Date: 6/3/2015 Email: patricia.campbell@bp.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: 9/25/2015

Expiration Date: 09/24/2017

**API NUMBER**

05 067 09955 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**

- 1) Provide 48 hrs Notice of Spud and 24 hrs Notice to Run and Cement Casing via COGCC eform 42
- 2) Sample and test two closest water wells within a 1/4 mile of that portion of the wellbore pathway that cuts through the Fruitland Coal (Horizontal dimension – Top to bottom of pay) (Rule 608) (see Policy-Ignacio Blanco Field – Notice to Operators 7/10/2009 and revised on 2/17/2011).
- 3) Operators are required to obtain a bottom hole pressure utilizing a bottom hole gauge after a minimum 48 hour shut-in period following completion and prior to sales (Rule 608)
- 4) Borehole problems encountered while drilling that require an unplanned sidetrack: Contact, discuss & receive approval within 24 hrs of occurrence from COGCC Regional Engineer – Mark Weems  
  
970-259-4587 off  
970-749-0624 cell  
mark.weems@state.co.us
- 5) Contact COGCC Regional Engineer – Mark Weems when encountering a well control issue, unexpected water flows, and unexpected Hydrogen Sulfide.

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	317.p Open-hole Resistivity Log with Gamma Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing. The Form 5, Completion Report, will list all logs run and have those logs attached.

Total: 1 comment(s)

### Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

### Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
1857609	SELECTED ITEMS REPORT
400844766	FORM 2 SUBMITTED
400848292	WELL LOCATION PLAT
400848293	DEVIATED DRILLING PLAN
400848295	P&A ASSESSMENT
400848298	DIRECTIONAL DATA
400848336	OTHER

Total Attach: 7 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Confirmed with State Land Board that surface restoration bond is in good order, 9/25/2015.	9/25/2015 2:29:49 PM
Permit	Corrected distance to nearest well measurements to 330'.  Final Review Completed. No LGD or public comment received.	9/21/2015 3:50:21 PM
Permit	Per phone conversation with operator, 8/24/2015, corrected mineral owner and mineral lease type from FEE to STATE and added state lease #. Also corrected spacing order # to 112-215.	8/24/2015 1:18:18 PM
Permit	Should spacing order # be 112-215? Order 112-246 is a pooling order.	7/13/2015 3:35:03 PM
Permit	Corrected lease description for clarity.	7/10/2015 12:58:22 PM
Engineer	A plat map was prepared depicting the planned directional wellbore in relation to other gas wells. A 1500' envelope was drawn around the trajectory of directional well bore relative to the top & bottom of pay. A survey of the adjacent gas wells falling within the boundaries of the 1500' envelopes was conducted. There was only one well found within 1500' of the of the pay zone in the permitted (planned) well. This well was drilled in 1959 to a depth of 250' and temporarily abandoned while waiting on a rotary rig. There were plans to set 10 3/4" OD surface casing to this depth, but is not so stated in subsequent plugging reports. The well was plugged from 250' to surface with dirt and rock.	6/29/2015 2:48:15 PM
Engineer	The proposed gas well is located within an area where unconfined fresh water aquifers are mostly developed in bedrock formations consisting mainly of shale with intermittent sandstone stringers with limited areal extent or having pockets of isolated water reservoirs. Water wells found in these locations can vary in depth from 100' to 650'. These aquifers are commonly identified as the Animas formation.  Respective to the proposed gas well, a one (1) mile radius of investigation of all offsetting fresh water wells has determined that the deepest surface casing required to protect the aquifers is a depth of 413' (includes a 50' margin of additional protection). The operator proposed a depth of 508' which is 91' deeper than the minimal requirement. The surface casing on the proposed well will be cemented from total depth to surface. The production casing on the proposed gas well will also be cemented from total depth to surface. This will serve two purposes (1) it will isolate and confine all hydrocarbon and brackish waters to their respective zones and (2) it will provide double protection for the fresh water aquifers which includes two concentric (2) steel casing strings and two concentric external (2) cement sheaths extending from total depth to surface (see attached SELECTED ITEMS REPORT).	6/29/2015 2:47:07 PM
Permit	Operator confirmed "YES" for "The Minerals beneath this Oil and Gas Location will be developed by this Well" and dropdown has been changed.	6/24/2015 1:09:10 PM
Permit	1) Should the checkbox be marked "YES" for "The Minerals beneath this Oil and Gas Location will be developed by this Well" as it appears on the related 2A?	6/24/2015 11:18:03 AM
Permit	Corrected surface blanket bond to 20010159 per phone conversation with operator. Passed completeness.	3/9/2015 2:42:07 PM
Permit	Returned to draft. 1.) Bond Surety is missing. 2.) No County is selected. 3.) Well cannot be N/A... Should be listed as Directional. 4.) Round Ground Elev. to nearest whole number.	3/8/2015 3:25:12 PM

Total: 11 comment(s)