

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 NW/4, NW/4 NE/4, SE/4 SE/4 Sec 2, T33N, R8W N.M.P.M. plus additional acreage

Total Acres in Described Lease: 280 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: 202 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1037 Feet

Building Unit: 1037 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1448 Feet

Above Ground Utility: 1140 Feet

Railroad: 5280 Feet

Property Line: 118 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: 1510 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 903 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	112-190	320	S/2

DRILLING PROGRAM

Proposed Total Measured Depth: 3466 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1297 Feet (Including plugged wells)

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? 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: ONSITE 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	400	170	400	0
1ST	7+7/8	5+1/2	15.5	0	3466	380	3466	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

BP is the landowner for this surface.

A separate DPW letter has not been sent, DPW notification is covered by the BP San Juan Basin Colorado Wildlife Mitigation Plan (MWP) dated March 2011.

BP may temporarily stage equipment associated with the drilling and completion of this well on other BP locations within the same spacing unit or lease to relieve congestion at the working site and improve safety without additional surface disturbance/expansion for this well.

An Open Hole Logging exception is attached to the permit.

A property line setback exception and landowner waivers are attached.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 306926

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: 3/9/2015 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: *Matthew Lee* Director of COGCC Date: 4/4/2015

Expiration Date: 04/03/2017

API NUMBER

05 067 09930 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

	<p>1) Provide 48 hour notice of spud via form 42</p> <p>2) Sample and test two closest water wells within a 1/4 mile of that portion of the wellbore pathway that cuts through only the Fruitland Coal (Horizontal dimension – Top to bottom of pay) (see Cause 112 Order 180-181) (see Policy-Ignacio Blanco Field – Notice to Operators 7/10/2009 and revised on 2/17/2011).</p> <p>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 (Cause 112 Order 180-181)</p> <p>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</p> <p>970-259-4587 off 970-749-0624 cell mark.weems@state.co.us</p> <p>5) Contact COGCC Regional Engineer – Mark Weems when encountering a well control issue, unexpected water flows, and unexpected Hydrogen Sulfide.</p>
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Best Management Practices

No BMP/COA Type

Description

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Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num

Name

1857559	SELECTED ITEMS REPORT
400802974	FORM 2 SUBMITTED
400803924	DIRECTIONAL DATA
400803925	DEVIATED DRILLING PLAN
400803942	WELL LOCATION PLAT
400803961	OPEN HOLE LOGGING EXCEPTION
400805980	EXCEPTION LOC REQUEST
400805982	EXCEPTION LOC WAIVERS
400806076	OTHER

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	4/3/2015 2:49:41 PM
Engineer	<p>A plat map was prepared depicting the planned directional wellbore in relation to other gas wells. A 1320' 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 1320' envelopes was conducted. The cement top on the the production casing in regards to the offsetting wells are deemed adequate for fracture stimulations in the proposed gas well (see attached SELECTED ITEMS REPORT). Subsequent Braden head pressure tests to the remedial cement work done on the well in 1994 indicate success in alleviating the pressures and adequately covering & isolating the Fruitland coal. BP will likely fracture stimulate this well with the design target of a 300'-600' radius from the bottom hole location. The subject offset well of interest (WPX Ignacio 33-8 #3 API #05-067-05511) is located 1279 feet from the S-Shape well bore to the Fruitland coal pay or bottom hole location.</p> <p>No PA wells were found to exist within the 1320' envelope.</p>	4/1/2015 2:33:14 PM
Engineer	<p>Bedrock Aquifers 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.</p> <p>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 364' (includes a 50' margin of additional protection). The operator proposed a depth of 400' which is 36' more than the minimal requirement; so, the surface casing has been deemed sufficient and approved. 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).</p>	4/1/2015 2:31:18 PM
Permit	There is an induction log run for the Bonifacio Gallegos A 2 on the same pad. Per open-hole logging exception request letter, operator is running a cased-hole compensated neutron/GR log from TD to the surface casing shoe.	3/13/2015 12:45:39 PM
Permit	Passed Completeness	3/13/2015 8:57:54 AM
Permit	Return to draft per operator request.	3/10/2015 7:43:02 AM

Total: 6 comment(s)