

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

Operator: Bill Barrett Corporation  
Well Name/Number: Picard 44-29H  
Location: SE SE Section 29 T30N R58E  
County: Roosevelt, MT; Field (or Wildcat) Wildcat

**Air Quality**

(possible concerns)

Long drilling time No, 30-40 days drilling time.  
Unusually deep drilling (high horsepower rig) Triple derrick rig 900 HP  
Possible H2S gas production Yes, low concentrations.  
In/near Class I air quality area No  
Air quality permit for flaring/venting (if productive) Yes, if productive. DEQ air quality permit required.

Mitigation:

Air quality permit (AQB review)  
 Gas plants/pipelines available for sour gas  
 Special equipment/procedures requirements  
 Other: \_\_\_\_\_  
Comments: Existing pipeline for gas in the area.

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**Water Quality**

(possible concerns)

Salt/oil based mud yes to long string oil based and salt based drilling fluids. Surface casing and horizontal hole, freshwater, and freshwater mud system to be used.  
High water table No  
Surface drainage leads to live water No, nearest drainage is East Shotgun Creek ephemeral drainage on the southwest edge of this location..  
Water well contamination No, no water wells within 1 mile of this location.  
Porous/permeable soils No, gumbo soils  
Class I stream drainage No, Class I stream drainages.

Mitigation:

Lined reserve pit  
 Adequate surface casing  
 Berms/dykes, re-routed drainage  
 Closed mud system  
 Off-site disposal of solids/liquids (in approved facility)  
 Other: \_\_\_\_\_

Comments: 1600' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems in and around freshwater slough.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings None  
High erosion potential No, moderate cut of up to 12.3' and moderate fill of up to 10.2', required..  
Loss of soil productivity None, location to be restored after drilling well.  
Unusually large wellsite No, large well site 290'X380'

Damage to improvements No, location to be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Conflict with existing land use/values Slight

Mitigation

- Avoid improvements (topographic tolerance)
- Exception location requested
- Stockpile topsoil
- Stream Crossing Permit (other agency review)
- Reclaim unused part of wellsite if productive
- Special construction methods to enhance reclamation
- Other \_\_\_\_\_

Comments: Access will be over existing county roads. About 208' of new access road will be built into this location. Cuttings will be buried in the lined reserve pit and either fly ashed or solibonded prior to pit closure. Pit fluids will be recycled or hauled to a commercial disposal.

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences None, within 1 mile of location.

Possibility of H2S Yes, low concentrations.

Size of rig/length of drilling time Triple drilling rig 30 to 40 days drilling time.

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other: \_\_\_\_\_

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a None identified.

Proximity to recreation sites None identified

Creation of new access to wildlife habitat No

Conflict with game range/refuge management No

Threatened or endangered Species No

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: \_\_\_\_\_

Comments: no concerns, existing access off county road.

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### Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: \_\_\_\_\_

Comments: Private surface

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Social/Economic**

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Remarks or Special Concerns for this site**

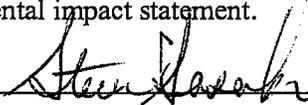
\_\_\_\_\_  
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**Summary: Evaluation of Impacts and Cumulative effects**

No long term impacts expected. Some short term impacts will occur, but will be mitigated in time.  
Horizontal Ratcliffe formation test 8,977' TVD 14,624' TMD

\_\_\_\_\_  
\_\_\_\_\_

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Steven Sasaki 

(title): Chief Field Inspector

Date: February 2, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website

(Name and Agency)

Roosevelt County water wells

(subject discussed)

February 2, 2006

(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_