

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

**Operator:** Burlington Resources Oil & Gas Company  
**Well Name/Number:** BR Fee 41-11H 19  
**Location:** NE NE Section 11 T21N R59E  
**County:** Richland, MT; **Field (or Wildcat)** W/C

**Air Quality**

(possible concerns)

Long drilling time: 50-60 days drilling time

Unusually deep drilling (high horsepower rig): No, triple drilling rig for 16,045' MD/10,384' TVD, 14,543' MD/10,384' TVD, and 14,561' MD/10,384' TVD 3 legged horizontal Bakken formation test.

Possible H2S gas production: Slight

In/near Class I air quality area: No

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

Air quality permit (AQB review)

Gas plants/pipelines available for sweet gas

Special equipment/procedures requirements

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

Comments: No special concerns three horizontal legs to be drilled from 1 surface location.

**Water Quality**

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on surface and invert/oil based drilling fluid out from under surface casing to intermediate casing depth. Saltwater to be used out from under intermediate casing to drill horizontal laterals to TD.

High water table: No

Surface drainage leads to live water: No, location is close to an unnamed ephemeral tributary drainage to O'Brien Creek about 1/16 of a mile to the north from this location.

Water well contamination: No, all water wells are 1 mile distance from this location.

Surface hole will be drilled with freshwater and steel surface casing set and cemented from 1950'. This should protect any water wells in the area.

Porous/permeable soils: No, silty sandy clay soils.

Class I stream drainage: No

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: 1950' of surface casing cemented to surface adequate to protect freshwater. Also, fresh water mud systems to be used on surface hole. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be allowed to dry, pit liner folded over the top of the solids, spoil dirt to fill pit, top soil spread over pit area, and seeded to land owners specification.

## Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None.

High erosion potential: No, moderate cut up to 11.3' and small fill up to 3.9', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: Large, 270'X400' location size required.

Damage to improvements: Slight, surface use is grazing land.

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 State Highway #261 and an existing Stone Energy well access road. About 1622' of new access road will be built into this location. Oil based drilling fluids will be recycled. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be allowed to dry, pit liner folded over the top of the solids, spoil dirt to fill pit, top soil spread over pit area, and seeded to land owners specification. No special concerns.

## Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No buildings or residences for 1.5 miles in any direction from this location.

Possibility of H2S: Slight

Size of rig/length of drilling time: Triple drilling rig 50 to 60 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

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

Comments: No concerns, residences have sufficient distance to mitigate noise problems. Proper BOP stack and surface casing should be able to control any problems that occurs.

## Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None, identified

Proximity to recreation sites: Little Missouri National Grasslands about 2.75 miles to the east of this location.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: None identified.

Mitigation:

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

Comments: Private surface lands. No concerns.

**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: On private surface lands. No concerns.

**Social/Economic**

(possible concerns)

- Substantial effect on tax base
- Create demand for new governmental services
- Population increase or relocation

Comments: No concerns

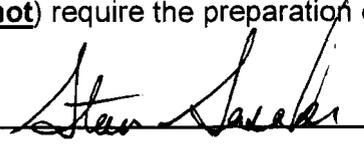
**Remarks or Special Concerns for this site**

Well is a 16,045' MD/10,384' TVD, 14,543'MD/10,384'TVD, and 14,561'MD/10,384'TVD  
3 legged horizontal Bakken formation test.

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

No long term impacts expected . Some short term impacts will occur.

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: November 15, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website.

(Name and Agency)  
Water wells in Richland County  
(subject discussed)

November 15, 2007

\_\_\_\_\_ (date)

If location was inspected before permit approval:

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

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

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