

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

Operator: Burlington Resources Oil & Gas Company
Well Name/Number: BR 21-21H 52
Location: NE NW Section 21 T25N R52E
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 Leg No. 1 14,111'
MD 8,890' TVD Leg No.2 14,400'MD 8,890'TVD

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 sour gas

Special equipment/procedures requirements

Other: _____

Comments: no special concerns.

Water Quality

(possible concerns)

Salt/oil based mud use freshwater and freshwater mud system on surface and oil
based drilling fluids to production string casing depth and saltwater in the horizontal legs
to TD.

High water table no

Surface drainage leads to live water No, location is close to Duplisse Creek, an
ephemeral drainage, about 3/8 of a mile to the east of this location.. Duplisse Creek
eventually drains to East Redwater Creek 3.5 miles to the southwest.

Water well contamination no, water wells within 1 mile of this location. Nearby water
wells are less than 200' in depth.

Porous/permeable soils no, bentonite 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: 1130' of surface casing cemented to surface adequate to
protect freshwater zones will stipulate to set additional surface casing to cover
base of Fox Hills formation. 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 16.9' and moderate fill, up to 11.8,' 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

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: using existing county roads and existing well trail access route to nearby producing well. Access off existing trail to this wellsite, approximately 532' of new access will be built into this location. 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 buildings 1.5 miles to the south and 1.5 miles to the southeast of the wellsite.

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, 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) 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

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:

Social/Economic

(possible concerns)

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

Comments: Second well in the spacing unit. No concerns

Remarks or Special Concerns for this site

Well is a 14,111' and 14,400', 2 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: June 21, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Richland County water wells

(subject discussed)

June 21, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____