

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Burlington Resources Oil & Gas Company
Well Name/Number: BR/Fee 21-10H 52
Location: NE NW Section 10 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 14,532' MD 8973' TVD Leg No.2 14,044'MD 8,973'TVD No. 3 13,961' MD 8973' 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 hole. Oil based drilling fluids on mainhole. Saltwater in horizontal legs.
High water table no
Surface drainage leads to live water yes, location next to unnamed ephemeral tributary to West Charley Creek, an ephemeral drainage, 1/16 miles to the east of this location.
Water well contamination no, all water wells shallower than 1250'.
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: 1250' 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.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings none.
High erosion potential no, moderate cut, up to 23.2' and moderate fill, up to 22.7' 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 well access road and building about 3412' of new access into this wellsite. Reserve pit liquids to be recycled or hauled to a commercial disposal. Cuttings and drill solids will be buried in the lined reserve pit. Pit will be backfilled after drying and/or solidified with clay subsoil. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences None, no residences within 1 mile of 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, 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: no concerns

Remarks or Special Concerns for this site

Well is a 14,532' MD/8973' TVD and 14,044' MD/8973' TVD, 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: May 31, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Richland County water wells

(subject discussed)

May 31, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____