

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

**Operator:** Enerplus Resources(USA) Corporation  
**Well Name/Number:** Brutus East-Lewis 3-4-H  
**Location:** NW NW Section 3 T24 R57E  
**County:** Richland, 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, Bakken horizontal MD 16,243' TVD 10,385'  
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: Existing pipeline for gas in the area.

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**Water Quality**

(possible concerns)

Salt/oil based mud yes to long string salt based and oil based drilling fluids. Horizontal section to be drilled with oil based drilling fluids. Surface casing hole to be drilled with freshwater and freshwater mud.  
High water table No  
Surface drainage leads to live water No, closest drainage is an ephemeral tributary drainage to North Hay Creek an ephemeral drainage about 3/8 of a mile to the northwest and 1/4 mile to the north of this location at its closest point.  
Water well contamination No, all water wells close by are shallower than 1900'.  
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: 1900'+/- 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, location has a moderate cut of up to 15.4' and a small fill of up to 2.5'.

required.

Loss of soil productivity None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite No, large well site 420' X300'

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: Access will be over existing highways, 201 and existing county road About 1925' of new road access will be built. Cutting will be buried in the lined reserve pit. Pit fluids will either be recycled or hauled to a commercial disposal. No concerns.

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences closest residence is 1/2 mile to the west, 3/4 of a mile to the east and the town of Girard is 1 1/4 miles to the west of this location.

Possibility of H2S Slight

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. Distance sufficient to mitigate noise.

### 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

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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**

No long term impacts expected. Some short term impacts will occur, but will be mitigated in time.

Second well in this spacing unit

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

TVD 10,385' MD 16,243' Bakken Formation horizontal well.

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 *Steven Sasaki*

(title): Chief Field Inspector

Date: June 8, 2006

Other Persons Contacted:

\_\_\_\_\_  
(Name and Agency)

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

County water wells

(subject discussed)

June 8, 2006

(date)

If location was inspected before permit approval:

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

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

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