

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

**Operator:** Enerplus Resources (USA) Corporation  
**Well Name/Number:** Hopper-Joe No. 19-3-HLID 3  
**Location:** NE NW Section 19 T25 R54E  
**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 Formation single lateral horizontal TVD 9,657' / MD 19,073'.

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 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, nearest drainage is an unnamed ephemeral tributary to Middle Charlie Creek and is 1/2 of a mile to the north of this location. Middle Charlie Creek is about 1 mile to the northeast.

Water well contamination: No, all water wells close by are shallower than 300'. Most of the wells in section 18 and 19 with in about 1/2 of a mile of this location.

Porous/permeable soils: No, sandy clay 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: 1549' +/- surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems.

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**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings: None

High erosion potential: No, location has a moderate cut, up to 18.0' and a moderate fill of 17.0', required.

Loss of soil productivity: None, location to be restored after drilling the well, if nonproductive. If productive unused portion of drillsite will be reclaimed.  
Unusually large wellsite: No, large well site 450'X310'.  
Damage to improvements: Slight, surface use is cultivated 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 from an existing county gravel road, #139. Approximately, 209' of new access road will be built into this location. Cutting will be buried in the lined reserve pit. Oil based drilling fluids will be recycled. Completion fluids will be hauled to a commercial disposal. Pit will be reclaimed with subsoil, after being allowed to dry. No concerns.

**Health Hazards/Noise**

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 3/8 of a mile to the west, 1/2 of a mile west, 1/4 of a mile east and 1 mile to the northeast 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: 1549+ is 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): 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: 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

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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 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

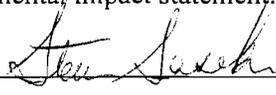
**Remarks or Special Concerns for this site**

No concerns. Bakken Formation single lateral horizontal TVD 9,657' / MD 19,073'.

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

TVD 9,657' MD 19,073' Bakken Formation horizontal well. No long term impacts expected. Some short term surface impacts will occur., but will mitigate in time.

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: December 17, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website.

(Name and Agency)

Richland County water wells

(subject discussed)

December 17, 2007

(date)

If location was inspected before permit approval:

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

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

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