

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

**Operator:** Helis Oil & Gas Company, LLC  
**Well Name/Number:** Battle 2-9  
**Location:** NW NE Section 9 T36N R19E  
**County:** Blaine, MT; **Field (or Wildcat)** Battle Creek

**Air Quality**

(possible concerns)

Long drilling time no, 3 to 4 days drilling time  
Unusually deep drilling (high horsepower rig) no, 2100'TD  
Possible H2S gas production no  
n/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 – using small rig to drill to 2100'TD

**Water Quality**

(possible concerns)

Salt/oil based mud no, freshwater and freshwater mud system.  
High water table no  
Surface drainage leads to live water no, closest drainage is East Fork Battle Creek, about 1/16 of a mile to the east of this location.  
Water well contamination None, no water wells within 1 mile of this location.  
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: 160' surface casing cemented to surface adequate to protect freshwater zones. If productive production casing will be cemented to surface. Also, fresh water mud systems to be used.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings no  
High erosion potential no, small cut, up to 3' and small fill, up to 3', 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 no, 250'X250' 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: Access will be using existing county roads and existing 2 track trails. About 1/16 of a mile of new access road needs to be built to access this location off an existing trail. Drilling fluids will be allowed to evaporate in the pits. Cutting will be buried on site in the pits. No special concerns

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences No residences within 1 mile of this location.

Possibility of H2S none

Size of rig/length of drilling time Small drilling rig/short 3 to 4 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

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

Comments: no concerns.

### 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. Private surface lands.

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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: No concerns. Private surface lands.

**Social/Economic**

(possible concerns)  
 Substantial effect on tax base  
 Create demand for new governmental services  
 Population increase or relocation  
Comments: no concerns

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**Remarks or Special Concerns for this site**

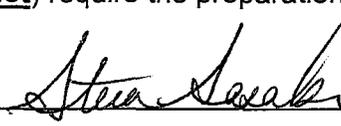
Well is a 2100' Niobrara formation of test

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

No long term impacts expected. Some short term impacts are expected.

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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: April 18, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website  
(Name and Agency)  
Blaine County water wells  
(subject discussed)  
April 18, 2006  
(date)

If location was inspected before permit approval:

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

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

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