

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Helis Oil & Gas Company, LLC
Well Name/Number: State 14-16
Location: SE SW Section 16 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
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 – 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, unnamed ephemeral tributary drainage to East Fork Battle Creek 1/8 of a mile to the northwest and south west 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)

Steam crossings no
High erosion potential no, small cut, up to 6' 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 ¼ 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

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: Montana Trust Lands surface. Trust Lands will do surface EA.

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: on Montana Trust lands surface. Trust Lands will do surface EA.

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 2100' Niobrara formation of test

Summary: Evaluation of Impacts and Cumulative effects

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

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: _____