

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

Operator: Lyco Energy Corporation  
Well Name/Number: Flik-Eddie No. 14-14-H  
Location: SE SW Section 14 T25 R53E  
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 TVD 9,417'  
MD 13,812'  
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 rule  
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. Surface casing hole to be  
drilled with freshwater and freshwater mud.  
High water table No  
Surface drainage leads to live water No, Nearest ephemeral drainage is West Charlie Creek about 1/8 of  
a mile to the west and south of this location.  
Water well contamination No, closest water well is 1/2 mile to the west and northeast. Both wells are  
shallower than 300'.  
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: 1600'+/- 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 small cut of 4.6' and a small fill of 3.7', required.

Loss of soil productivity Slight  
Unusually large wellsite No, large well site 400'X310'  
Damage to improvements No, location to be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.  
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 county roads, #139. A short access road off the county road into location will be constructed, about 209'. Oil based muds will be recycled or hauled to a commercial disposal, cuttings will be disposed of in a lined pit. Pit will be solidified with subsoil in the lined pit and clean cover and top soil put over the solidified pit contents.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences closest residence is 1 mile to the east 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: 1600+ 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) 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: Private surface

**Social/Economic**

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns. Second well in this spacing unit.

**Remarks or Special Concerns for this site**

TVD 9,417' MD 13,812' Bakken Formation horizontal well.

**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: April 4, 2006

Other Persons Contacted:

(Name and Agency)

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

(subject discussed)

April 4, 2006

(date)

If location was inspected before permit approval:

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

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

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