

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

Operator: Lyco Energy Corporation  
Well Name/Number: Doright-Betty 30-4-H  
Location: NW NW Section 30 T25 R55E  
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 9,824' MD 14,046'

Possible H2S gas production slight

In/near Class I air quality area No

Air quality permit for flaring/venting (if productive) Yes, if productive. DEQ air quality permit required.

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 unnamed ephemeral tributary drainage to East Charlie Creek is 3/8 mile to the south of this location. This unnamed drainage enters East Charlie Creek about 0.75 miles to the northeast.

Water well contamination No, all water wells close by are shallower than 1550'.

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: 1550'+/- surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent any.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings None

High erosion potential No, location has a moderate cut of up to 13.4' and a small fill of up to 4.2', 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'X310'

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 highways, county roads and trails. A short access road will be built from the existing trail into this location about 362'. Cuttings will be buried in the lined reserve pit. Pit fluids will be recycled or disposed of in a commercial disposal.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences None within 1 mile to the 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: 1550+ 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

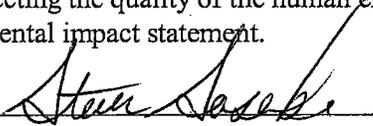
**Remarks or Special Concerns for this site**

TVD 9,824' MD 14,046' Bakken Formation horizontal well. Second producing well in this spacing unit.

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

No long term impacts expected, some short term impacts will occur, but can be mitigated.

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: January 31, 2006

**Other Persons Contacted:**

Montana Bureau of Mines and Geology, Groundwater Information Center website

(Name and Agency)

Richland County water wells

(subject discussed)

January 31, 2006

(date)

If location was inspected before permit approval:

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

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

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