

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

Operator: Branch Oil and Gas
Well Name/Number: Wickum 17-3
Location: S/C NE NW Section 17 T35N R4E
County: Liberty, MT; **Field (or Wildcat)** West Haystack Butte

Air Quality

(possible concerns)
Long drilling time no, 3 to 4 days drilling time.
Unusually deep drilling (high horsepower rig) no, 2400' TD
Possible H2S gas production no
n/near Class I air quality area no
Air quality permit for flaring/venting (if productive) yes, DEQ permit

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 2400'

Water Quality

(possible concerns)
Salt/oil based mud no, air/mist, freshwater and freshwater mud system.
High water table no
Surface drainage leads to live water no, nearby coulee drainage
Water well contamination no, deepest nearby well is 302'. Surface hole will be drilled with air/mist and/or freshwater muds. Surface casing will be set and cemented to surface from at least 500'.
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: 500+' of surface casing cemented to surface adequate to protect freshwater zones. Also, air, air/mist, and fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)
Stream crossings no, crossing.
High erosion potential no, small cut, up to 8.7' and small fill, up to 4.9', required.

Loss of soil productivity no, location will be restored after drilling, if nonproductive. If productive unused portion of wellsite will be restored.

Unusually large wellsite no, 200'X193' location size required.

Damage to improvements no, surface use grasslands.

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 to location will be over existing county gravel roads.

About 1/2 mile of access road will be used access this location off the county road.

Cuttings will be buried in the earthen pits. Fluids will be allowed to dry in the reserve pit.

Pits will be backfilled. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences Farm place about 1/8 mile to the southeast of wellsite.

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

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 private land within the boundaries of an existing gas field, West Haystack Butte Field.

Social/Economic

(possible concerns)
 Substantial effect on tax base
 Create demand for new governmental services
 Population increase or relocation
Comments: no concerns Well is a development well in an existing gas field.

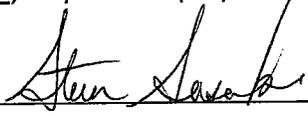
Remarks or Special Concerns for this site

Well is a 2400' Kootenai Formation test southwest side of East Butte.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected, some short term impacts will occur. Well is within the West Haystack Butte gas field boundaries.

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 23, 2006

Other Persons Contacted:
Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Liberty county water wells
(subject discussed)
January 23, 2006
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____