Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Solomon Exploration, Inc.
Well Name/Number: Solomon 31-2
Location: NW NW Section 31 T31N R17E
County: Hill, **MT; Field (or Wildcat)** Tiger Ridge Field

Air Quality

(possible concerns)
Long drilling time: No, 3-4 days drilling time.
Unusually deep drilling (high horsepower rig): No, 1800' TD, single derrick drilling rig.
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 rule 75-2-211.

Mitigation:
X 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 1800' 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: Yes, unnamed ephemeral tributary drainage to Little Bullhook Creek, about 1/16 of a mile to the north of this location.
Water well contamination: No, closest water well is about over 1 mile from this location. Surface casing will be drilled with freshwater and surface casing set and cemented from 150'. Production string will be cemented back to surface.
Porous/permeable soils: No, silty sandy bentonitic soils.
Class I stream drainage: No

Mitigation:
__ Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____
Comments: 150' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used. Production casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None

High erosion potential: No, small cut required up to 6.0' and moderate fill, up to 10.0', 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, 150'X250' location size required.
Damage to improvements: Slight.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
X Stockpile topsoil
__ Stream Crossing Permit (other agency review)
X Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be over existing county road, Bullhook Road and existing Ranch access road. About 1/2 of a mile of access trail will be built into this location off an existing Ranch road. Cuttings will be disposed of in the unlined earthen pits. Drilling fluids will be trucked to nearby stock pond and disposed of with surface owner approval. Pit will be allowed to dry then backfilled. No special concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Closest residence is about ½ of a mile to the southeast 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:
X 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): 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: None identified.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other: _____

Comments: No concerns. Private surface lands.

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. On private lands.

Social/Economic

(possible concerns)

__ Substantial effect on tax base

__ Create demand for new governmental services

__ Population increase or relocation

Comments: No concerns. Development gas well within the Tiger Ridge Gas Field.

Remarks or Special Concerns for this site

Well is a 1800' Eagle Formation test in the Tiger Ridge Gas Field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated in a short time.

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: June 12, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center

(Name and Agency)

Hill County water wells.

(subject discussed)

June 12, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____
Inspector: _____
Others present during inspection: _____