Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Sinclair Oil Corporation
Well Name/Number: Schmitz 1-25H
Location: NW NW Section 25 T27N 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): No, use a triple derrick rig 900 HP drilling rig to drill a single lateral Bakken Formation horizontal hole, 14.678'MD/9,072'TVD.
Possible H2S gas production: Yes
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:
X Air quality permit (AQB review)
X Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____
Comments:_____

_____

Water Quality

(possible concerns)
Salt/oil based mud: Yes to long string oil based drilling fluids. Horizontal lateral to be drilled with brine water. Surface casing hole to be drilled with freshwater and freshwater mud.
High water table: Possible
Surface drainage leads to live water: Yes, Charley Creek ephemeral drainage, 1/8 of a mile to the southwest of this location.
Water well contamination: No, nearby water wells. No water wells within 1 mile of this location. Surface casing will be set to 1,650' and cemented back to surface.
Porous/permeable soils: Variable sandy silty soils.
Class I stream drainage: No, Class I stream drainages.

Mitigation:
X 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: 1,650' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None, only ephemeral drainage will be crossed.
High erosion potential: No, location will require moderate cut, up to 28.9' and a small fill, up to 7.0', 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 425'X325'.
Damage to improvements: None
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 #321. About 9292' of new road will be constructed into this location off the existing county road. Drill cuttings will be disposed of in the lined reserve pit. Invert mud will be recycled. Completion fluids and reserve pit fluids will be trucked to a commercial Class II for disposal. Pit will be backfilled after remaining fluids have evaporated. No special concerns .

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: None, no residence within 1 mile of location in any direction. Closest residence is 1.5 miles to the southwest of this location.
Possibility of H2S: Slight
Size of rig/length of drilling time: Triple drilling rig 30 to 40 days drilling time.

Mitigation:

_X_ Proper BOP equipment
__ Topographic sound barriers
_X_ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other: _____

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. Noise should not be a problems, sufficient distance from residence to rig should mitigate this.

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: Private surface lands. 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 lands. No concerns.

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

A single lateral Bakken Formation horizontal hole, 14.678'MD/9,072'TVD. No concerns.

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: December 7, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website

(Name and Agency)

Water wells in Richland County

(subject discussed)

December 7, 2007

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____