Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Nance Petroleum Corporation
Well Name/Number: Simard Farms 4-22H
Location: NW NW Section 22 T22N R58E
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
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 75-2-211.

Mitigation:
X Air quality permit (AQB review)
X Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:
Comments: Existing pipeline for H2S gas or sweet gas in the area.

Water Quality

(possible concerns)
Salt/oil based mud yes to long string salt based and oil based drilling fluids. Horizontal hole will be drilled with saltwater. Surface casing hole, freshwater, and freshwater mud system to be used.
High water table No
Surface drainage leads to live water No, closest drainage is an ephemeral drainage, Youngs Coulee about ½ mile to the northeast of this location
Water well contamination No problem anticipated all water wells less than 1800' nearby.
Porous/permeable soils No, gumbo 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: 1800' surface casing will be drilled with freshwater and cemented back to surface. 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
High erosion potential No, location will require a small cut of up to 2.1' and a small fill of up to 1.6', 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 400'X320'
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 gravel roads. A short access off the existing well access for the Simard Farms 2-22H well will be built into this location.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences No residences within 1 mile 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. Bakken formation completions generally does not have H2S associated with it.

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: Second well in this spacing unit. No concerns

Remarks or Special Concerns for this site

Horizontal Bakken well 14,424'MD

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: June 21, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Richland County water wells
(subject discussed)
June 21, 2006
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____