Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Sands Oil Company
Well Name/Number: Tronstad 1-4
Location: C SE Section4 T3N R61E
County: Fallon, **MT; Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)
Long drilling time no, 3 to 4 days drilling time.
Unusually deep drilling (high horsepower rig) no, 1975' TD
Possible H2S gas production None expect
In/near Class I air quality area no
Air quality permit for flaring/venting (if productive) n/a

Mitigation:
__ Air quality permit (AQB review)
_ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:
Comments: no special concerns – using small sized rig to drill to 1975'

Water Quality

(possible concerns)
Salt/oil based mud no, freshwater and freshwater gel polymer mud system.
High water table no
Surface drainage leads to live water Yes. Nearest drainage is an unnamed ephemeral tributary drainage to Chimney Creek about ¼ mile to the southwest of this location. According to the topo sheet, there are stock ponds within the drainage to the west.
Water well contamination no, closest stock water well is ¾ of a mile to the northwest of this location. This well will be drilled with freshwater and freshwater muds. Surface casing will be set and cemented to surface If nonproductive cement plugs will be set across water zones.
Porous/permeable soils no, bentonite 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: 200' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings no
High erosion potential no, small cut, up to 0.5' at the well stake and no fill, 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'X150' location size required.
Damage to improvements no.
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: Drilling muds will be allowed to evaporate in the drilling pit. Cuttings and mud solids will be buried in the drilling pits. Access will use existing county roads and trails. Approximately 0.5 mile of new access will be built into this location. No special concerns

---

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences ¾ of a mile to the east is a residence.
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) n/a
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

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

Well is a 1975' Eagle Formation test

Summary: Evaluation of Impacts and Cumulative effects

No, long term impacts expected. Some short term impacts will occur.

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: February 27, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Fallon County water wells
(subject discussed)
February 27, 2006
(date)

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