

Montana Board of Oil and Gas Conservation  
Environmental Assessment

Operator: Suncor Energy (Natural Gas) America Inc.  
Well Name/Number: Sieben Ranch Fee SENGAI Fletcher Pass 14063-12  
Location: NW ¼ SW ¼ Sec 3 T14N R6W  
County: Lewis and Clark MT; Field (or Wildcat) Wildcat

**Air Quality**

(possible concerns)

Long drilling time about 120 days  
Unusually deep drilling (high horsepower rig) no  
Possible H2S gas production yes  
In/near Class I air quality area no  
Air quality permit for flaring/venting (if productive) yes

Mitigation:

Air quality permit (AQB review)  
 Gas plants/pipelines available for sour gas  
 Special equipment/procedures requirements  
 Other: \_\_\_\_\_

Comments: Air quality permit not expected to be triggered if drill time is less than 180 days; H2S and emergency notification plan will be submitted and approved prior to spud; no pipelines or processing plants are available.

**Water Quality**

(possible concerns)

Salt/oil based mud yes  
High water table no  
Surface drainage leads to live water yes  
Water well contamination no  
Porous/permeable soils no  
Class I stream drainage across Highway 279

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: Will use oil base mud and closed system; lease stipulations prohibit disposal of drill waste on site - no reserve pit will be dug. Entire site will be bermed with 3' compacted native soil to prevent runoff or spills from reaching creek; storm water permit application (general permit) will be obtained from DEQ.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings yes  
High erosion potential no  
Loss of soil productivity no  
Unusually large wellsite no  
Damage to improvements no  
Conflict with existing land use/values no

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: Small un-named tributary of Willow Creek will be diverted around the location temporarily; current logging operation will be accommodated by routing logging road through the constructed pad area. Very short access road will require Dept. of Transportation approach permit - operator will improved existing

logging road approach. Portions of the site will be graveled to avoid tracking mud onto the highway. Stream reclamation plan appears adequate for successful reclamation.

#### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences 1.31 miles  
Possibility of H2S possible in Mississippian

Size of rig/length of drilling time

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other: \_\_\_\_\_

Comments: H2S plan being prepared and will be submitted for approval prior to drilling; Quantity of H2S not likely to exceed 1% based on nearest production in similar geologic setting. Will use three ram BOP stack - pressure rated to 34,500 kPa (about 5000 psi). Proposed rig is Nabors Canada C69 and is fully winterized and rated for similar service in Canadian Foothills drilling operations.

#### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) none  
Proximity to recreation sites none  
Creation of new access to wildlife habitat no  
Conflict with game range/refuge management no  
Threatened or endangered Species NRIS indicates Grizzly/Lynx Habitat

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: \_\_\_\_\_

Comments: Area is immediately adjacent to paved Highway, in an area currently being harvested for timber. Proposed winter drilling operation should avoid any conflicts with grizzly bear use, and the current level of logging activity probably has reduced any likelihood of lynx occupation that could be impacted by drilling operations.

#### Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites none in area

Mitigation

- avoidance (topographic tolerance, location exception)
- other agency review (SHPO, DSL, federal agencies)
- Other: \_\_\_\_\_

Comments: private surface - logging activity and road construction for the logging road have disturbed most of the area proposed for construction.

#### Social/Economic

(possible concerns)

- Substantial effect on tax base
- Create demand for new governmental services
- Population increase or relocation

Comments: Rig tax and the drilling/construction operation will have minor, but positive impact on local economy, but is not expected to adversely affect demand for services.

#### Remarks or Special Concerns for this site

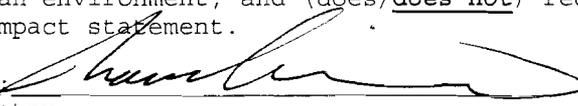
Well is a 14,472' Madison Gas test. Well site will occupy less than 5 acres immediately adjacent to highway 279 on private land (Seiben Ranch) that is currently being logged. Drilling activities are planned for winter and should have little impact on wildlife and other resources. Stream modification permits

for activity to temporarily relocate the intermittent creek will mitigate affects on downstream water quality and full stream restoration will be required following drilling. An emergency plan will be required prior to commencement of drilling.

**Summary: Evaluation of Impacts and Cumulative effects**

If the subject well is completed as a dry hole, the associated impacts are expected to be short term and minor. Reclamation of the site, and restoration of the original stream course will take place within one or two seasons following completion. Because no reserve pit or other waste containment facility is allowed to be built on site, no long term affects are likely and reclamation should be relatively simple. The operator will place a small camp facility on lands owned by Sieben Ranch to accommodate crews - this site is not planned to be co-located with the drill site. If production is established in commercial quantities, substantial additional environmental review will be required. It is likely that federal agencies will become involved in any additional development drilling or construction of additional infrastructure due to the amount of federal controlled surface in the area. Therefore, approval of this permit does not constitute a major action of state government, as approval of additional wells or construction of support infrastructure which will almost certainly involve a number of other agencies and additional NEPA/MEPA review.

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):   
(title:) Administrator  
Date: September 29, 2004

Other Persons Contacted:

\_\_\_\_\_  
\_\_\_\_\_  
(Name and Agency)  
\_\_\_\_\_  
(subject discussed)  
\_\_\_\_\_  
(date)

If location was inspected before permit approval:

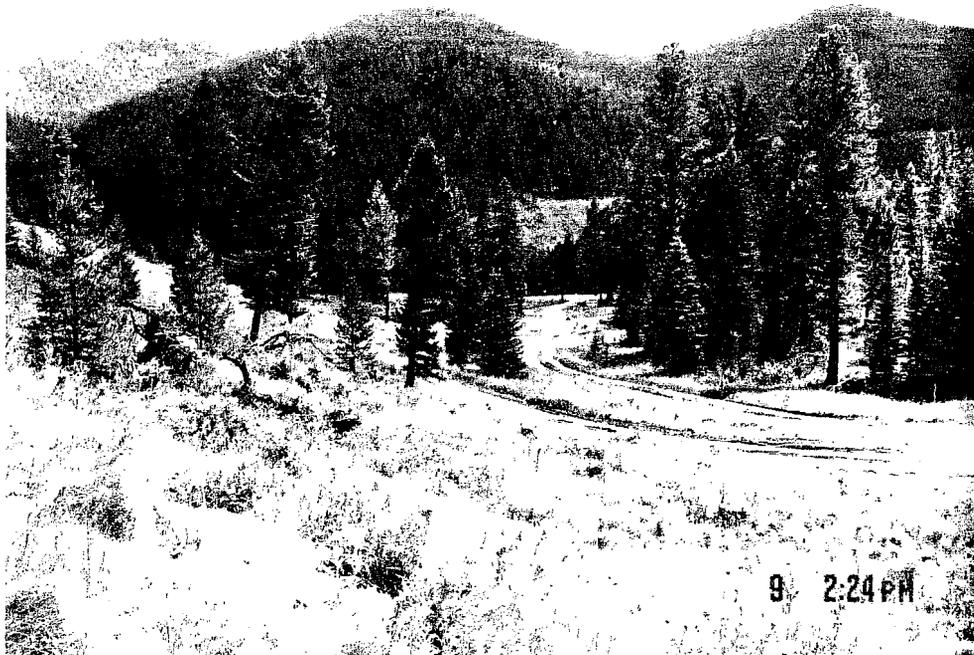
Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_



Suncor location looking South East toward Highway 279 and highway access; note existing two track unimproved road and marginally improved bladed logging road in foreground.



Suncor –view of location/well pad area. Pad is approximately centered in the photo. The logging road will be reconstructed and re-connected to allow continued use of the existing road when the pad is completed. The two-track road will be eliminated



Stake on east line of well pad—existing logging road in foreground.



Picture taken NW of well site looking SE ( toward highway 279)—small drainage on right of picture will be diverted around the construction area.



Stake marks Southeast corner of well pad—topsoil will be stored in this area for use in site reclamation.



Three stakes mark east boundary of the well pad looking northwest from the SE corner stake.



Suncor location looking west from SE corner – highway approach to left of picture. Logging road in foreground. Rocks placed to limit truck access. Post in foreground is the locking side of a gate –open when the picture was taken.