

DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION  
BOARD OF OIL AND GAS CONSERVATION

BRIAN SCHWEITZER, GOVERNOR

OIL AND GAS CONSERVATION DIVISION



STATE OF MONTANA

July 1, 2008

Mr. Todd Everts  
Environmental Quality Council  
Room 106, State Capitol  
Helena, MT 59620

Re: Environmental Assessment Reports

Dear Todd:

Enclosed please find a copy of the environmental assessments completed by this office covering the period from April 1 through June 30, 2008 with regard to applications for permits to drill oil or gas wells on state and privately owned lands in the State of Montana.

Let us know if you require any further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Richmond", written over a horizontal line.

Thomas P. Richmond  
Administrator

km

Encs. 152

**RECEIVED**

JUL 02 2008

LEGISLATIVE ENVIRONMENTAL  
POLICY OFFICE

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(406) 434-2422

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

**Operator:** FH Petroleum Corporation  
**Well Name/Number:** Swanz Ranch 31-21  
**Location:** NW NE Section 21T10N R18E  
**County:** Wheatland, **MT;** **Field (or Wildcat)** W/C

**Air Quality**

(possible concerns)

Long drilling time: No, 25-35 days drilling time. TD 8,850'  
Unusually deep drilling (high horsepower rig): No, triple drilling rig for a vertical Big Horn Formation test to 8,850' TD.  
Possible H<sub>2</sub>S 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:

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

Comments: No special concerns.

**Water Quality**

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on surface hole and main hole to total depth.  
High water table: No  
Surface drainage leads to live water: Yes, closest drainage is Careless Creek about 1/8 of a mile to the northwest of this location.  
Water well contamination: No, closest water well is about 5/8 of a mile to the southwest of this location, water well is only 87' in depth. Surface casing hole will be drilled with freshwater and freshwater mud to 1250' and steel surface casing run and cemented to surface.  
Porous/permeable soils: Possible, sandy clay soils.  
Class I stream drainage No

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: 1250' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole. Reserve pit liquids will be allowed to evaporate. Solids will be allowed to dry in the reserve pit and then spoil dirt to fill pit, top soil spread over pit area, and seeded to land owners specification.

**Soils/Vegetation/Land Use**

(possible concerns)

Steam crossings: None.

High erosion potential: No, small cut, up to 3.8' and small fill required up to 7.6', 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: Large, 500'X350' location size required.

Damage to improvements: Slight, surface use is grazing land.

Conflict with existing land use/values: Slight

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: Using existing county road. Access off existing county road, approximately 2299' of new road into this location. Cuttings will be buried in the unlined reserve pit. Drilling and completion fluids will be allowed to dry in the unlined pit. Pit will be backfilled when dry. Location will be re-contoured per surface owners specifications. No special concerns.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Yes, closest residence is about 5/8 of a mile to the northeast about 3/4 of a mile to the southwest of this location.

Possibility of H2S: Yes

Size of rig/length of drilling time: Triple drilling rig 25 to 35 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: \_\_\_\_\_

Comments: No concerns, proper BOP stack and surface casing should be able to control any problems that occurs.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None, identified.

Proximity to recreation: About 5 miles to the north is the Lewis and Clark National Forest Boundary.

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.

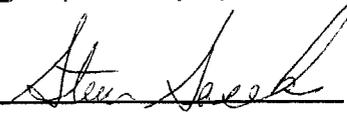
**Remarks or Special Concerns for this site**

Well is a vertical Big Horn Formation test to be drilled to 8850'TD.

**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: March 31, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website  
(Name and Agency)  
Wheatland County water wells  
(subject discussed)  
March 31, 2008

(date)

If location was inspected before permit approval:

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

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

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