

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

Operator: FH Petroleum Corporation
Well Name/Number: State11-16
Location: NW NW Section 16T10N R18E
County: Wheatland, **MT;** **Field (or Wildcat)** W/C

Air Quality

(possible concerns)

Long drilling time: No, 25-35 days drilling time. TD 9,147'
Unusually deep drilling (high horsepower rig): No, triple drilling rig for a vertical Big Horn Formation test to 9147'TD.
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:

- 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 Little Careless Creek about 1/16 of a mile to the north of this location.
Water well contamination: No, closest water well is about 1 mile to the northeast of this location. Surface casing hole will be drilled with freshwater and freshwater mud to 1500' 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: 1500' 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, "Trust Lands" stipulation #14. Berms, banks, ditches, fabric dams or other measures as necessary are required to prevent runoff into wetland area and is a requirement #11 of "Trust Lands" stipulations.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None.

High erosion potential: No, moderate cut, up to 17.3' and small fill required up to 6.9', 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, #297. Access off existing county road, approximately 1500' 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 DNRC "Trust Lands" specifications. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Yes, closest residence is about 1 mile to the northeast, 1.125 miles southeast and about 1.5 miles to the south 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: Montana State Trust Lands surface lands. Trust Lands will do surface EA.

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: Montana State Trust Lands surface lands. Trust Lands will do surface EA.

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 9147'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 3, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)

Wheatland County water wells _____

(subject discussed)

February 28, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____