

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

Operator: Stealth Energy USA
Well Name/Number: Mosdal Hailstone Basin #23-1
Location: NW NW Section 23 T3N R21E
County: Stillwater, 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, single derrick drilling rig, 2500' TD
Possible H2S gas production: No
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 – using small rig to drill to 2500' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater or freshwater mud system and/or air.
High water table: No
Surface drainage leads to live water: No, surface drainage does not lead to live water.
Water well contamination: No, closest water well is about 1/4 of a mile to the southwest of this location and is only 210' in depth. Spring exists, about 1/8 of a mile to the northwest of this location. Mainhole will be drilled with air and/or air/mist. If productive 4 1/2" production casing will be cemented to surface.
Porous/permeable soils: No, silty 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: 100' of surface casing not enough. Recommend 230' cemented to surface adequate to protect freshwater zones. Also, air and/or fresh water mud systems to be used. 4 1/2" production casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No, crossings.

High erosion potential: No, no cut and no fill required. Small self leveling drilling rig.
Loss of soil productivity: No, location will be restored after drilling in nonproductive and if productive unused portion of the drillsite will be reclaimed.
Unusually large wellsite: No, 100'X100' location size required.
Damage to improvements: Slight, surface use grassland.
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: Surface access will be over existing county road, Mosdal Road and existing ranch trails. About 1/8 of a mile of new access will be built off the existing ranch trail into this location. Cuttings will be buried in the earthen pit. Fluids will be allowed to evaporate. Pit will be backfilled when dry. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within 1 mile of this wellsite.
Possibility of H2S: None
Size of rig/length of drilling time: Small drilling rig/short 3 to 4 days drilling time.

Mitigation:

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

Comments: Wahinton Rotating control Diverter head Model 3022 Diverter on top of BOP will be used. No concerns.

Wildlife/recreation

(possible concerns)

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

Mitigation:

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

Comments: No concerns. Private surface lands.

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: No concerns. 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 2500' Lakota Formation test for oil.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected. Some short term surface impacts will occur, but will be mitigated in time.

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: April 23, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC
website

(Name and Agency)

Water wells in Stillwater County

(subject discussed)

April 23, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____