

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

Operator: Bayswater Exploration & Production, LLC
Well Name/Number: Nordahl 15-2
Location: SW SE Section 14, T1N 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 small single derrick drilling rig, 2900' TD.

Possible H2S gas production: None

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 2900' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater or freshwater mud system and/or air/mist.

High water table: No

Surface drainage leads to live water: None, no live drainages nearby.

Water well contamination: No, closest water wells are about 1/2 of a mile to the northwest from this location, well is only 70' in depth. Surface casing will be drilled to 510' with air/freshwater and steel surface casing cemented to surface. If productive 4 1/2" production casing will be cemented to surface.

Porous/permeable soils: No, 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: 510' of surface casing 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.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No, crossings.

High erosion potential: No, no cut and no fill required. Will be using 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

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 roads, Peterson Road and existing two track road. A short access road will be built off an existing two track trail, about 260'. 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: Yes, 3/4 of a mile to the northwest 1.5 miles to the southeast of this wellsite. Peterson School, about 5/8 of a mile to the west of this location.

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: Operational BOP will be required.

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: 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 2900' Big Elk Formation test

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: May 13, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Stillwater County

_____ (subject discussed)

May 13, 2008

_____ (date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____