

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

Operator: Saga Petroleum, LLC
Well Name/Number: Big Coulee 6-4-420
Location: NW NW Section 6 T4N R20E
County: Stillwater, MT; **Field (or Wildcat)** Big Coulee

Air Quality

(possible concerns)

Long drilling time: No, 4 to 5 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig to go to 2077' 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 single derrick rig to drill to 2077' TD

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system on surface hole and air/mist mainhole.

High water table: No

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Big Coulee Creek, about 1/4 of a mile west and east of this location.

Water well contamination: No, no water well within 1 of a mile of this location. Surface casing will be set at 500'. Drilled with freshwater and freshwater mud. Surface casing will be run and cemented to surface from 500'.

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: 500' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, crossings.

High erosion potential: No small cut, up to 0.3' and small fill, up to 0.15', 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: No, small drilling pad, 150'X225' location size required.

Damage to improvements: Slight, surface use cultivated field.

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: Will use existing county road. About 900' of new access road will be built to access this location. Cuttings will be buried in the earthen pits. Fluids will be allowed to dry in the pit. Pits will be backfilled when dry. No special concern.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within 1 mile of this location.

Possibility of H2S: None

Size of rig/length of drilling time: Single drilling rig/short 4 to 5 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: _____

Comments: 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: On private land. 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: On private land. No concerns.

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns. In an existing gas field, Big Coulee Gas Field.

Remarks or Special Concerns for this site

Well is a 2077' TD Morrison formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact 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: February 22, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Stillwater County water wells

(subject discussed)

February 22, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____