Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Continental Resources, Inc.
Well Name/Number: Staci 3-11 H
Location: NE NW Section 11 T23N R55E
County: Richland , **MT; Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time: No, 30 to 40 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig to drill a 19,850'MD/10,209TVD single lateral Bakken horizontal development well.
Possible H2S gas production: Slight
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:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:

Comments: No special concerns – using triple rig to drill to19,850'MD/10,209TVD single lateral.

Water Quality

(possible concerns)
Salt/oil based mud: Yes, freshwater and freshwater mud system on surface hole and oil based invert mud system on mainhole. Saltwater for horizontal lateral.
High water table: No
Surface drainage leads to live water: Yes, closest surface drainage is an unnamed ephemeral tributary to East Fork Fox Creek, an ephemeral drainage also. The location is about 1/16 mile south of the tributary drainage. Within East Fork Fox Creek are what appears to be a stock ponds.
Water well contamination: No, closest water well is over 1 mile to the southeast of this location and is 85' in depth. The surface casing hole will be drilled with freshwater and freshwater mud. Steel casing will be set at 1790' and cemented to surface. This should protect any shallow groundwater.
Porous/permeable soils: No, silty bentonitic soils.
Class I stream drainage: No

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other:

Comments: 1790' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: No, crossing.
High erosion potential: No, small cut, up to 9.0' and small fill, up to 7.8', 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, 500'X270' location size required.
Damage to improvements: Slight
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be over existing county road, #328. An access road will be built from the existing county road, #328 into this location. About 1583' of new road will be constructed into this location. Drill cuttings will be disposed of in the lined reserve pit. Drilling fluids will be recycled. Completion fluids will be trucked to a commercial Class II for disposal. Pit will be backfilled after remaining fluids have evaporated. No special concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Closest residence is about ¾ of a mile to the west southwest of this location. The town of Lambert, MT is about 6.5 miles to the south of this location.
Possibility of H2S: Slight
Size of rig/length of drilling time: Triple drilling rig/short 30 to 40 days drilling time

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

Comments: Lambert is far enough away from this well to not be a problem. No concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: No 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 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. Development well in an existing permanent spacing unit.

Remarks or Special Concerns for this site

Well is a 19,850'MD/10,209TVD single lateral Bakken horizontal development well. Development well within this spacing unit.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected from the drilling of this well. Some short term 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: March 24, 2008

Other Persons Contacted:
Montana Bureau of Mines and Geology, GWIC website.

(Name and Agency)
Richland County water wells.
(subject discussed)
March 24, 2008
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____