

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

Operator: Continental Resources, Inc.
Well Name/Number: Alice 3-21H
Location: NE NW Section 21 T23N R56E
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 19,220'MD TVD10,255' Bakken Formation single lateral 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:

- 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 19,220'MD TVD10,255' single horizontal 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 the mainhole and saltwater for the horizontal lateral.

High water table: No.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Three Buttes Creek another ephemeral drainage. Within this drainage are stock ponds.

Water well contamination: No, closest stockwater wells are about 3/8 of a mile to the southwest of this location. Depth of wells are 75' or less. Surface casing will be drilled with freshwater and freshwater muds. Surface casing will be set and cemented to surface from 1790'.

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

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No, stream crossing.

High erosion potential: Yes, moderate cut, up to 18.4' and moderate fill, up to 14.3', 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

Stockpile topsoil

Stream Crossing Permit (other agency review)

Reclaim unused part of wellsite if productive

Special construction methods to enhance reclamation

Other _____

Comments: Access will be over county road, #334. An access from existing county road into location, about 4086' of new access will be built. Drilling fluids will be recycled and/or hauled to a commercial Class II disposal. Cuttings and mud solids will be buried in the lined reserve pit after allowing pit to dry. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences Residences about 3/8 of a mile to the southwest of this location. The town of Lambert is about 5 miles to the southwest.

Possibility of H2S: Slight

Size of rig/length of drilling time: Triple drilling rig/short 30 to 40 days drilling time

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: _____

Comments: Sufficient surface casing and working BOP should mitigate any H2S concerns.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): Fox Lake State Game Management Area about 6 miles to the southwest of this location.

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: The drilling of this well should have no effect on the Fox Lake Game Management Area. Surface lands are private at this location. 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 lands. No concerns.

Social/Economic

(possible concerns)

- Substantial effect on tax base
- Create demand for new governmental services
- Population increase or relocation

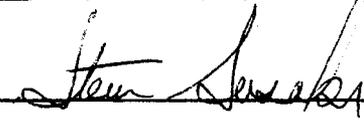
Comments: On private lands. No concerns.

Remarks or Special Concerns for this site

Summary: Evaluation of Impacts and Cumulative effects

No significant long term impacts expected, some short term surface impacts will occur, but will mitigate 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: June 23, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

June 23, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____