

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

**Operator:** Continental Resources, Inc.

**Well Name/Number:** Belleeza 1-12H

**Location:** NE NW Section 12 T23N R53E

**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 to 19,627'MD/9,614'TVD a single lateral horizontal Bakken Formation well.

In/near Class I air quality area: No Class I air quality area in the area of review.

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 a 19,627'MD/9,614'TVD single lateral horizontal Bakken Formation well test.

**Water Quality**

(possible concerns)

Salt/oil based mud: Yes, oil based invert drilling fluid system on the mainhole and saltwater for the horizontal lateral. Freshwater and freshwater mud system on surface hole.

High water table: No high water table anticipated at this surface location.

Surface drainage leads to live water: Yes, closest drainage is unnamed ephemeral tributary drainages to East Redwater Creek, also an ephemeral drainage, about 1/8 of a mile to the southwest from this location. Within this unnamed ephemeral drainage is a stock pond, about 2 miles to the west northwest from this location.

Water well contamination: No, nearest water well is about 1 mile to the northwest from this location, all other wells are 1 mile and further from this location. Depth of this water well 84'. Surface hole must be drilled with freshwater and freshwater mud. Surface casing will be set at 1547' and cemented to surface.

Porous/permeable soils: No, silty sandy clay soils.

Class I stream drainage: No Class I stream drainages in the area of review.

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: 1547' of surface casing cemented to surface adequate to protect freshwater zones. Solids will be buried in the lined cuttings pit on site. Oil based invert drilling fluids will be recycled to the next drill location or back to the mud

company. Completion fluids will be trucked to an authorized Class II SWD facility for disposal.

### **Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings: No stream crossings anticipated, only crossing ephemeral drainages.

High erosion potential: No, moderate cut, up to 13.0' and moderate fill, up to 14.0', 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: Yes, a large wellsite.

Damage to improvements: Slight, surface use cultivated land.

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, 317 and existing section line trail. About 1858' of new access road will be upgraded (section line trail) and constructed into this location, from the county road. Drill cutting will be disposed of in the lined cuttings pit. Oil based invert drilling fluids will be recycled. Reserve pit fluids will be recycled and/or haul to a commercial disposal. Continental will utilize a closed loop mud system for the drilling of this well. No special concerns.

### **Health Hazards/Noise**

(possible concerns)

Proximity to public facilities/residences: Closest residences are about 1.25 miles to the southwest, about 1.75 miles to the southeast and about 1.75 miles to the south southeast from this location.

Possibility of H2S: Slight chance of H2S.

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: Adequate surface casing and operational BOP should mitigate any problems. 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: Species identified as threatened by the USFWS are Pallid Sturgeon, Interior Lease Tern, Piping Plover and Whooping Crane. Species listed as candidate species are the Greater Sage Grouse and Sprague's Pipit. NH tracker website for this Township and Range lists zero (0) species of concern.

Mitigation:

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

Comments: Private surface cultivated land. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over 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: On private surface cultivated land. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

### **Social/Economic**

(possible concerns)

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

Comments: No concerns.

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### **Remarks or Special Concerns for this site**

Well is a 19,627'MD/9,614'TVD a single lateral horizontal Bakken Formation well test.

### **Summary: Evaluation of Impacts and Cumulative effects**

No long term impact expected, some short term impacts will occur.

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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): /s/Steven Sasaki  
(title:) Chief Field Inspector  
Date: January 29, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

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(Name and Agency)  
Richland County water wells  
(subject discussed)  
January 29, 2012  
(date)

US Fish and Wildlife, Region 6 website  
(Name and Agency)  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES  
MONTANA COUNTIES, Richland County  
(subject discussed)

January 29, 2012  
(date)

Montana Natural Heritage Program Website (FWP)  
(Name and Agency)  
Heritage State Rank= S1, S2, S3, T23N R53E  
(subject discussed)

January 29, 2012  
(date)

If location was inspected before permit approval:

Inspection date:

Inspector:

Others present during inspection: