

DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION  
BOARD OF OIL AND GAS CONSERVATION

BRIAN SCHWEITZER, GOVERNOR

OIL AND GAS CONSERVATION DIVISION



STATE OF MONTANA

July 1, 2008

Mr. Todd Everts  
Environmental Quality Council  
Room 106, State Capitol  
Helena, MT 59620

Re: Environmental Assessment Reports

Dear Todd:

Enclosed please find a copy of the environmental assessments completed by this office covering the period from April 1 through June 30, 2008 with regard to applications for permits to drill oil or gas wells on state and privately owned lands in the State of Montana.

Let us know if you require any further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Richmond".

Thomas P. Richmond  
Administrator

km

Encs. 152

**RECEIVED**

JUL 02 2008

LEGISLATIVE ENVIRONMENTAL  
POLICY OFFICE

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201 MAIN STREET  
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SHELBY, MONTANA 59474-0690  
(406) 434-2422

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

**Operator:** Headington Oil, Limited Partnership.  
**Well Name/Number:** Childers 24X-11  
**Location:** SE SW Section 11 T25N R53E  
**County:** Richland, MT; Field (or Wildcat) Wildcat

**Air Quality**

(possible concerns)

Long drilling time: No, 30-40 days drilling time.  
Unusually deep drilling (high horsepower rig): Triple derrick drilling rig 900 HP to drill a single lateral Bakken Formation Horizontal Well, 19,059' MD/9538' TVD.  
Possible H2S gas production: Yes, slight possible.  
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: Existing gas pipelines in the area.

**Water Quality**

(possible concerns)

Salt/oil based mud: Yes invert based drilling fluids for mainhole. Brine water for horizontal lateral. Surface casing hole to be drilled with freshwater and freshwater mud.  
High water table: No, high water table.  
Surface drainage leads to live water: Yes, closest drainage is an unnamed ephemeral tributary drainage to West Charlie Creek, about 1/16 of a mile to the northeast from this location. Within this unnamed ephemeral drainage are stock ponds.  
Water well contamination: None, closest water well is about 1 mile to the southwest from this location. Depth of the well is 120'. Surface hole in this proposed well will be drilled to 1550' with freshwater. Steel surface casing will be run and cemented from 1550' to surface to protect shallow surface waters.  
Porous/permeable soils: No, sandy clay soils.  
Class I stream drainage No, Class I stream drainages.

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: 1550' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings: None  
High erosion potential: No, moderate cut, up to 22.1' and moderate fill, up to 17.6', 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, large well site 430' X300'

Damage to improvements: No, 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: Using existing county road, #318. Short access off existing county road, approximately 3600' of new road into this location. Oil based drilling fluids will be recycled. Completion fluids will be trucked to a Class II disposal. Cuttings and mud solids will be disposed of in the lined reserve pit. Pit will be solidified with subsoil and clay. No special concerns.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: None nearby.

Possibility of H2S: Slight

Size of rig/length of drilling time: Triple drilling rig 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 cemented to surface with working BOP stack should mitigate any problems. Distance sufficient to mitigate noise problems.

### 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: No

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: \_\_\_\_\_

Comments: No concerns. Private surface lands.

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### 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. Development well within this spacing unit.

**Remarks or Special Concerns for this site**

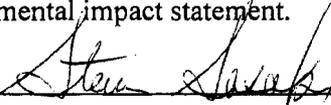
Well is a 19,059' MD/9538'TVD single lateral horizontal Bakken Formation test.

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

No long term impacts 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: June 20, 2008

Other Persons Contacted:

\_\_\_\_\_  
(Name and Agency)

Montana Bureau of Mines and Geology, Groundwater Information Center website.

(subject discussed)

Water wells in Richland County

(date)

June 20, 2008

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_