

Montana Board of Oil and Gas Conservation  
Environmental Assessment

**Operator:** Pennaco Energy/Marathon Oil Co.  
**Well Name/Number:** Bales Ranch 10-6-9-46WP  
**Location:** NW SE 6 T9S R46E  
**County:** Powder River, MT; Field (or Wildcat) W/C

**Air Quality**

(possible concerns)

Long drilling time no  
Unusually deep drilling (high horsepower rig) no  
Possible H2S gas production No  
In/near Class I air quality area no  
Air quality permit for flaring/venting (if productive) no

Mitigation:

- Air quality permit (AQB review)
- Gas plants/pipelines available for sour gas
- Special equipment/procedures requirements
- Other: \_\_\_\_\_

Comments: rarely, wells may vent free methane temporarily during initial drilling/testing. This well is primarily a core test and will not be produced except for the gathering of data. Flaring of commercial quantities of gas is prohibited.

**Water Quality**

(possible concerns)

Salt/oil based mud No  
High water table no  
Surface drainage leads to live water ~~Tongue River~~  
Water well contamination no  
Porous/permeable soils localized  
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: will use fresh water, native clay mud. No water production except to gather water quality information is proposed.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings no  
High erosion potential no  
Loss of soil productivity no  
Unusually large wellsite no  
Damage to improvements no  
Conflict with existing land use/values no

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: No special concerns for this site. Very small location and pit area. Truck mounted rig does not require much location preparation.

**Health Hazards/Noise**

(possible concerns)

Proximity to public facilities/residences over ½ mile  
Possibility of H2S No  
Size of rig/length of drilling time

Mitigation:

- Proper BOP equipment (diverter)
- Topographic sound barriers
- H2S contingency and/or evacuation plan

\_\_\_ Special equipment/procedures requirements  
\_\_\_ Other: \_\_\_\_\_  
Comments: no special concerns for this area.

**Wildlife/recreation**

(possible concerns)  
Proximity to sensitive wildlife areas (DFWP identified) no  
Proximity to recreation sites none in immediate area  
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 impact, minimal construction/drilling time and no infrastructure proposed at this time.

**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: location on fee surface - no sites reported

**Social/Economic**

(possible concerns)  
\_\_\_ Substantial effect on tax base  
\_\_\_ Create demand for new governmental services  
\_\_\_ Population increase or relocation  
Comments: No impacts at this time as no production is proposed

**Remarks or Special Concerns for this site**

Well is a shallow coal bed methane test. Proposed action is to drill and core through coal zones of interest, set pipe and shut-in well until core results are analyzed. If potentially productive - further testing will require a water management plan. CBM production will require Board approval of POD and associated permits for water, air, etc.

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

Relatively minor impacts associated with this project, which is limited to exploration phase only. No production is proposed until test results are analyzed.

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)   
(title:) Administrator  
Date: October 24, 2003  
Other Persons Contacted:

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

\_\_\_\_\_  
(subject discussed)

\_\_\_\_\_  
(date)

If location was inspected before permit approval:

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

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

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