

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

Operator: Orion Energy Partners, L.P.
Well Name/Number: Mustard Ranch 2-24H
Location: SE SW Section 2 T25N R59E
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 rig 900 HP
Possible H2S gas production Yes
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: _____

Water Quality

(possible concerns)

Salt/oil based mud yes to long string invert drilling fluids. Surface casing freshwater, and freshwater mud system to be used. Horizontal hole will be drilled with brine water.
High water table No
Surface drainage leads to live water yes, close to an unnamed ephemeral drainage which drains to nearby stock ponds.
Water well contamination None, surface hole will be drilled with freshwater to 1800'. Surface casing will be run and cemented to surface. Deepest nearby water well about 1 mile away is 290' deep about 1/4 mile to the south of this well in section 11.
Porous/permeable soils No, gumbo 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: 1800' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems in and around freshwater slough.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings None
High erosion potential No, location requires a small cut, up to 5.9' and a small fill, up to 4.4', required.
Loss of soil productivity None, location to be restored after drilling well, if nonproductive. If productive

unused portion of the drilling pad will be reclaimed.
Unusually large wellsite No, large well site 300'X400'
Damage to improvements No, location to be restored after drilling, if nonproductive. If productive
unused portion of the drilling pad will be reclaimed.
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 existing county gravel road and existing trail. Will utilize same access as the Yellowstone 2-24H well location., with a short access road into location, about 500'. Cuttings will be buried in the lined reserve pit. Drilling fluids will be recycled to the next location. Completion fluids in the reserve pit will be hauled to a commercial Class II disposal site.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences yes, residence about 1/4 of a mile to the southeast of this location. The town of Nohly lies 4 miles to the northwest of this location.

Possibility of H2S Yes

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.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a None identified.

Proximity to recreation sites Missouri River is 3 miles to the northeast

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.

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

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns

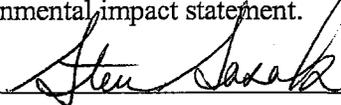
Remarks or Special Concerns for this site

This will be a 13,212' MD 8,976' 'TVD Ratcliffe formation horizontal well.

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: June 23, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

June 23, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____