

Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: Orion Energy Partners, L.P.
Well Name/Number: Lower Falls 24-24H
Location: Lot 5 Section 24 T26N 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 drilling rig to drill a single lateral Ratcliffe Formation well, 13,398' MD/8866'TVD.

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 inert oil based drilling fluids. Surface casing and horizontal hole, freshwater, and freshwater mud system to be used.

High water table: Yes

Surface drainage leads to live water: Yes, in the floodplain of the Missouri River, about 1/2 of a mile to the northeast is the Missouri River.

Water well contamination None, surface hole will be drilled with freshwater to 1800'. Surface casing will be run and cemented to surface.

Porous/permeable soils: Yes, sandy silty loam 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)

Steam crossings: None

High erosion potential: No, location requires a small cut, up to 1.1' and a small fill, up to 0.1', required.

Loss of soil productivity: Slight, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 300' X 400'

Damage to improvements: Slight, surface use is cultivated fields.

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, #356. A short access off the county road into location will be built. Estimated road length is 250' maximum. Drilling fluids will be recycled. Completion fluids will be trucked to a commercial disposal. Cuttings will be disposed on site, unless surface location is covered under rule 36.22.1005. then offsite disposal is required. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Yes, residences about 1/2 of a mile to the south and north 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): None identified.

Proximity to recreation sites: Missouri River is 1/2 of a mile to the northeast.

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: Private surface lands. No concerns, existing access off county road.

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.

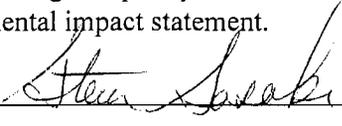
Remarks or Special Concerns for this site

This will be a single lateral Ratcliffe Formation well, 13,398' MD/8866'TVD.

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: December 20, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

December 20, 2007

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____