

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

Operator: EOG Resources, Inc.
Well Name/Number: Stateline 12-3229H
Location: SW SE Section 33 T29N R59E
County: Roosevelt, MT; **Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 30 to 40 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple derrick rig to drill a single lateral Bakken Formation horizontal well test, 19,584'MD/10,143'TVD.
Possible H2S gas production: Slight
In/near Class I air quality area: No Class I air quality area.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under rule 75-2-211.

Mitigation:

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

Comments: Gas pipeline system in the area to take associated gas.

Water Quality

(possible concerns)

Salt/oil based mud: Yes to intermediate casing string hole to be drilled with oil based invert drilling fluids. Horizontal laterals will be drilled with oil based invert drilling fluid. Surface casing hole to be drilled with freshwater and freshwater mud.
High water table: Possible high water table.
Surface drainage leads to live water: Yes, closest drainage is Little Muddy Creek a tributary to the Missouri River, about 1/32 of a mile to the east from this location. The Missouri River is about 3.5 miles to the southwest from this location.
Water well contamination: No, closest water wells are about 1/4 mile and 3/8 of a mile to the southeast and south from this location. Surface casing will be drilled with freshwater, casing set to 1627' and cemented back to surface.
Porous/permeable soils: No, sandy silty 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: 1627' surface casing well below freshwater zones in adjacent water wells. Also, covering Base of the Fox Hills aquifer. Surface hole will be drilled with freshwater and freshwater muds to 2056'+. Steel surface casing will be run and cemented to surface from 1627'.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None anticipated.

High erosion potential: Possible, location will require a small cut, up to 4.2' and small fill, up to 1.4', required.

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

Unusually large wellsite: No, location is a large wellsite, 330'X450' in size.

Damage to improvements: Slight, surface use appears to be 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: Requires DEQ General Permit for Storm Water Discharge Associated with

Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be over existing county gravel roads. About 745' of new access road will be built off the existing county road into this location. Oil based drilling fluids will be recycled. Freshwater surface hole cuttings will be buried on site. Oil based drill cuttings will be buried in the lined reserve pit. Completion pit fluids will be hauled to a permitted Class II saltwater disposal. Pit will be backfilled when dry. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Residence about 3/16 of a mile to the southeast from this location. The town of Bainville, Montana is about 3.75 miles to the east southeast from this location.

Possibility of H2S: Slight to none.

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. Noise should not be a problems, sufficient distance from residence to rig should mitigate this.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified in the area.

Proximity to recreation sites: None identified in the area.

Creation of new access to wildlife habitat: None

Conflict with game range/refuge management: None

Threatened or endangered Species: Threatened or endangered species listed in Roosevelt county by USFW service are Pallid Sturgeon, Piping Plover, Interior Lease Tern and Whooping Crane. Candidate species is the Sprague's Pipit.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: _____

Comments: Well will be drilled away from live water and will be drilled in the fall/winter months after the migratory birds have migrated through. Surface use is private cultivated lands. 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: Surface use is private cultivated lands. No concerns.

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: Wildcat Bakken Formation, single lateral horizontal oil well test. No concerns.

Remarks or Special Concerns for this site

Drill a wildcat single lateral Bakken Formation horizontal well test, 19,584' MD/10,143'TVD.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected, only 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): /s/Steven Sasaki

(title:) Chief Field Inspector

Date: November 5, 2010

Other Persons Contacted:

(Name and Agency)

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

(subject discussed)

Water wells in Roosevelt County_____

(date)

November 5, 2010

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA
COUNTIES, Roosevelt County

(subject discussed)

November 5, 2010_____

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____