

Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: EOG Resources, Inc.
Well Name/Number: Stateline 13-3635H
Location: NE NW (Lot 3) Section 36 T28N R59E
County: Roosevelt, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 25 to 30 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple derrick rig to drill a single lateral Bakken Formation horizontal well test, 16,716' MD/10,450' TVD.

Possible H2S gas production: Slight chance of H2S, from the Mississippian Formations.

In/near Class I air quality area: No Class I air quality area, in the area of review.

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: If there are existing pipelines for natural gas in the area then associated gas must be tied into a gathering system or if there isn't a gathering system nearby, associated gas can be flared under Board Rule 36.22.1220. This is a single lateral, 16,716' MD/10,450' TVD, Bakken Formation horizontal well.

Water Quality

(possible concerns)

Salt/oil based mud: Yes to intermediate casing string hole to be drilled with oil based invert drilling fluids. Horizontal lateral will be drilled with oil based invert drilling fluid. Surface casing hole will be drilled with freshwater and freshwater drilling mud system (Rule 36.22.1001).

High water table: No high water table anticipated at this location.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Little Muddy Creek, about 1/4 of a mile to the south from this location, within this drainage there is a stock pond. Little Muddy Creek is about 1.5 miles to the northwest from this location. The stock pond is about 3/4 of a mile to the northwest from this location.

Water well contamination: No, closest water wells are about 3/8 of a mile to the northeast, about 5/8 of a mile to the northwest, about 3/4 of a mile to the north northwest and about 7/8 of a mile to the northwest from this location. Depth of these water wells range from 20' to 460'. Surface casing will be drilled with freshwater, casing set to 2017' and cemented back to surface (Rule 36.22.1001).

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: 2017' surface casing well below freshwater zones in adjacent water wells. Also, covering Base of the Fox Hills aquifer (Rule 36.22.1001). Surface hole will be drilled with freshwater and freshwater muds to 2017' (Rule 36.22.1001). Steel surface casing will be run and cemented to surface from 2017'.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None anticipated.

High erosion potential: Possible high erosion potential on cut and fill slopes, location will require a moderate cut, up to 18.1 and a moderate fill, up to 13.5', 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, 320'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 state highway, Highway #2. About 1136' of new access road will be built off the existing State Highway 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 cuttings 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: Closest residence in the surrounding area is about 3/8 of a mile to the northeast from this location. A highway rest stop is about 1.125 miles to the northwest from this location, along Highway #2. The town of Bainville, Montana is about 8 miles to the west from this location.

Possibility of H2S: Slight possibility of H2S from Mississippian Formations.

Size of rig/length of drilling time: Triple drilling rig 25 to 30 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 (5,000 psig annular and double ram, Rule 36.22.1014) 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

Proximity to recreation sites: None

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. NH Tracker website list twp (2) species of concern: Bobolink and the Whooping Crane.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: _____

Comments: Slight, surface use appears to be cultivated land. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

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 Slight, surface use appears to be cultivated land. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

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, 16,716'MD/10,450'TVD.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected, only some short term impacts will occur.

