

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

Operator: True Oil LLC
Well Name/Number: Anvick 21-3-3-10H
Location: Lot 3 (NE NW) Section 3 T25N R58E
County: Richland, MT; **Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 35 to 40 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig to drill to 20,490'MD/10,305'TVD, single lateral Bakken Formation horizontal well test.

Possible H2S gas production: Possible 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 75-2-211.

Mitigation:

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

Comments: No special concerns – using a triple derrick drilling rig to drill to 20,490'MD/10,305'TVD, single lateral Bakken Formation horizontal well test. If there are existing gas gathering system for natural gas in the area, associated gas can be gathered or if no gathering system nearby, associated gas can be flared under Board Rule 36.22.1220.

Water Quality

(possible concerns)

Salt/oil based mud: Yes, oil based invert mud system will be used for drilling the mainhole (75/25 and/or 80/20) and saltwater for drilling the horizontal lateral. Freshwater and freshwater mud system will be used for drilling the surface hole, rule 36.22.1001.

High water table: Yes, there is possible high water table at this well location.

Surface drainage leads to live water: Yes, closest drainage is Four Mile Creek, about 1/32 to 1/16 of a mile to the south from the edge of this location.

Water well contamination: No, closest water wells are about 3/16 of a mile to the west southwest, 3/8 of a mile to the west southwest, 3/8 of a mile to the southwest, about 1/2 of a mile to the southwest, about 1/2 of a mile to the east, about 3/4 of a mile to the east and about 7/8 of a mile to the southwest, from this location. Depth of these stock and domestic water wells range from 25' to 156'. Surface hole will be drilled with freshwater and surface casing set to 2000' and cemented to surface, rule 36.22.1001.

Porous/permeable soils: Yes, porous sandy silty soils.

Class I stream drainage: No Class I stream drainages in the area of review.

Mitigation:

- Lined reserve pit
- Adequate surface casing
- Berms/dykes, re-routed drainage

- Closed mud system
- Off-site disposal of liquids (in approved facility)**
- Other: Lined cuttings pit will be constructed.

Comments: 2000' of surface casing cemented to surface adequate to protect freshwater zones, rule 36.22.1001. Also, fresh water mud systems to be used, rule 36.22.1001. Drilling fluids will be disposed of offsite in an authorized Class II SWD. Recommend cuttings be disposed of off the wellsite, rule 36.22.1005.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No stream crossing anticipated.

High erosion potential: No high erosion potential, location will have small cut and fill, small cut, up to 3.1' and small fill, up to 0.7', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: Yes, a large wellsite, 430'X370' location size required.

Damage to improvements: Slight, surface use is a cultivated field.

Conflict with existing land use/values: Slight, surface use is a cultivated field.

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: Will use existing gravel county road, #142. A short new access road will be built from the county gravel road into this location, about 66' of new access into this location. Oil based invert mud will be recycled. Completion fluids will be hauled to a Class II SWD. Cuttings will be buried in the lined cuttings pit and allowed to dry before burial. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Nearest residences are about 3/8 of a mile to the west southwest, about 3/4 of a mile to the northeast, about 1 mile to the north northwest and about 1.25 miles to the east southeast from this location.

Possibility of H2S: Yes, possible H2S from the Mississippian Formations.

Size of rig/length of drilling time: Small drilling rig 35 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 2000' and operational BOP (5,000 psig stack, annular and pipe blind rams) should mitigate any problems. (BOP's 5,000 psig annular, pipe and blind rams) rule 36.22.1014.

Wildlife/recreation

(possible concerns)

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

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: None identified.

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Interior Least Tern, Whooping Crane and Piping Plover.

Candidate species are the Greater Sage Grouse and the Sprague's Pipit. NH tracker website for this Township and Range lists three (3) species of concern:

Whooping Crane, Northern Redbelly Dace and Iowa Darter.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: _____

Comments: Private surface 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: Private surface 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: No concerns. Wildcat well single lateral Bakken Formation well test 20,490'MD/10,305'TVD.

Remarks or Special Concerns for this site

Well is a 20,490'MD/10,305'TVD, single lateral Bakken Formation horizontal well test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. 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): \s\Steven Sasaki _____
(title:) Chief Field Inspector _____
Date: January 19, 2013

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC
website.

(Name and Agency)
Richland County water wells.

(subject discussed)
January 19, 2013

(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Richland County
(subject discussed)

January 19, 2013

(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T25N R58E
(subject discussed)

January 19, 2013

(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection: _____