

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

Operator: Synergy Offshore LLC
Well Name/Number: Synergy Winkowitsch 3406-09-01
Location: SE NE Section 9 T34N R6W
County: Glacier, **MT;** **Field (or Wildcat)** Wildcat (Cut Bank Field)

Air Quality

(possible concerns)

Long drilling time: 15 to 20 days drilling time.

Unusually deep drilling (high horsepower rig): No, double derrick drilling rig for a 5,200'TVD vertical hole Souris River Formation test well.

Possible H2S gas production: Yes, H2S gas production possible.

In/near Class I air quality area: Yes, Class I air quality area, Blackfeet Reservation.

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: Double derrick drilling rig to drill a 5,200'TVD single vertical hole, Souris River Formation test well.

Water Quality

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on surface and main hole.

High water table: None anticipated.

Surface drainage leads to live water: No, closest drainage is Big Rock Coulee, about 3/8 of a mile to the east from this location. Big Rock Coulee eventually drains into Cut Bank Creek is about 2.75 miles to the south of this location.

Water well contamination: No, no water wells within 1 mile in any direction from this location. Surface casing hole will be drilled with freshwater and freshwater muds to 600' and steel surface casing run and cemented to surface to protect ground water.

Porous/permeable soils: No, sandy clay soils.

Class I stream drainage: Class I stream drainage is Cut Bank Creek, about 2.75 miles to the south from this location.

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: 600' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None will utilize existing road crossings.
High erosion potential: No, small cut, up to 1.4' and small fill required up to 0.6', 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: No, large, 300'X350' location size required.
Damage to improvements: Slight, surface use is a cultivated field.
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: Using existing county road, Ed Williams Road. Synergy will construct about 1/4 of a mile of new access road into this location from the existing farm access trails. Cuttings will be buried in the earthen reserve pit. Drilling fluids and completion fluids will be allowed to dry in the earthen reserve pit. Pit will be allowed to dry then backfilled when dry. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences are about 3/8 of a mile to the southeast, 3/8 of a mile to the north northwest and about 3/4 of a mile to the east from this wellsite. Farm buildings with no residence, about 1/8 of a mile to the south from this location

Possibility of H2S: Yes possible H2S.

Size of rig/length of drilling time: Triple derrick drilling rig 15 to 20 days drilling time.

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other: _____

Comments: No concerns, proper BOP stack and surface casing should be able to control any problems that occur.

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: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endanger in Glacier County are Grizzly Bear, Canada Lynx and Bull Trout. Candidate species are

the Meltwater Lednian Stonefly, Sprague's Pipit, Wolverine and Whitebark Pine. NH tracker website lists no (0) species of concern.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: _____

Comments: Private cultivated surface lands. 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 cultivated surface lands. 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: Well is being drilled in an existing oil field, Cut Bank Oil & Gas

Field.

Remarks or Special Concerns for this site

Well is a 10,036'MD/5,590'TVD single lateral horizontal hole, Souris River Formation test well.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. 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: September 9, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Glacier County water wells
(subject discussed)
September 9, 2011
(date)

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

September 9, 2011
(date)

Montana Natural Heritage Program Website
(Name and Agency)
Heritage State Rank= S1, S2, S3 T34N R6W
(subject discussed)

September 9, 2011
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____