Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Fidelity Exploration and Production Company
Well Name/Number: Fee/Sun Coulee 24-14H
Location: SE SW Section142 T9N R34E
County: Rosebud**, MT; Field (or Wildcat)** W/C

Air Quality

(possible concerns)
Long drilling time: No, 20 to 30 days drilling time.
Unusually deep drilling (high horsepower rig): No, a triple drilling rig to drill a vertical pilot hole to the Otter Formation, 5200' TD. Then plug back and drill to 9,580'MD/4795' TVD single lateral horizontal Heath Formation well test.
Possible H2S gas production: Slight H2S possible.
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:
_X_ Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____

Comments: No special concerns – using a triple drilling rig to drill a vertical pilot hole to the Otter Formation, 5200' TD. Then plug back and drill to 9,580'MD/4795' TVD single lateral horizontal Heath Formation well test. No gas gathering system exists in this area. Associated sweet gas and H2S gas can be flared under Board Rule 36.22.1220, if no gathering systems are in close proximity to this well.

Water Quality

(possible concerns)

Salt/oil based mud: No, surface hole will be drilled with freshwater. Main hole will be drilled with freshwater and freshwater drilling mud. Horizontal lateral will be drilled with freshwater mud system.
High water table: No high water table in the area of review.
Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to West Fork Froze to Death Creek, also an ephemeral drainage, about adjacent to this well location to the north from this location.
Water well contamination: No, closest water wells are further than mile from this location in any direction. This well will drill and set 13 1/2" surface casing to 500' and cement to surface. Well will be drill with freshwater based drilling fluids from base of surface casing and pilot hole to a TD of 5200', into the Otter Formation. Well will be plugged back and kicked off horizontally into the Heath Formation. 7" intermediate string will be set and cemented through the curve. A 6 1/8" hole will be drilled with freshwater in the horizontal lateral out from under the 7" intermediate casing string to 9,580'MD/4795' TVD and 4 ½" casing liner will be run.
Porous/permeable soils: No, silty "Gumbo" clay soils.

Class I stream drainage: No Class I stream drainages.

Mitigation:

___ Lined reserve pit

_X_ Adequate surface casing

__ Berms/dykes, re-routed drainage

__ Closed mud system

_X_ Off-site disposal of liquids (in approved facility)

_X_ Other: Drill cuttings will be buried in the lined reserve pit and mixed off with dry subsoil. Reserve pit will be closed when dry. A minimum of four feet (4') dry subsoil and topsoil will cover the reserve pit

Comments: Unnamed ephemeral surface drainage should be rerouted around this surface location. Freshwater mud system to be used on surface hole. Freshwater mud system will be used out from under surface casing to 5200' TD pilot hole. Freshwater drilling fluids will be used to drill the horizontal lateral to 9,580'MD/4795' TVD. Fluids in the lined reserve pit will be trucked to a permitted Class II Disposal. The reserve pit will be allowed to dry and then backfilled with at least 4' of cover. No concerns.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No live water stream crossings. Crossing only ephemeral drainages.

High erosion potential: No, small cut, up to 7.7' and small fill, up to 3.1', 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, a large location, 470X470' size required.

Damage to improvements: Slight, surface use is grass and sagebrush range land.

Conflict with existing land use/values: Slight

Mitigation

__ Avoid improvements (topographic tolerance)

__ Exception location requested

_X_ Stockpile topsoil

__ Stream Crossing Permit (other agency review)

_X_ Reclaim unused part of wellsite if productive

__ Special construction methods to enhance reclamation

X Other: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be from existing county road, Ingomar Road. About 1 5/8 miles of new road will be constructed into this location off Ingomar road. Freshwater drill cuttings and mud solids will be buried in the lined pit. Lined pit will backfilled with 4' of cover when dry. Drilling fluids will be trucked to a Class II Disposal around Sidney, Montana. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within 5 miles of this drilling location.

Possibility of H2S: Yes, slight chance of H2S.

Size of rig/length of drilling time: Triple derrick drilling rig, about 20 to 30 days drilling time.

Mitigation:

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

Comments: _Operational BOP and adequate surface casing should mitigate any problems. No concerns.

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: __Threatened or endangered species identified in this county are the Pallid Sturgeon, Interior Least Tern and the Black-Footed Ferret. Candidate species is the Greater Sage-Grouse and Sprague's Pipit. NH tracker website lists four (4) "Species of Concern" in T9N R34E. They are the Black-tailed Prairie Dog, Greater Sage-Grouse, Mountain Plover and Long Bill-Curlew. NH Tracker Website lists five (5) "Potential Species of Concern" in T9N R34E. They are the Hayden's Shrew, Chimney Swift, Eastern Screech-Owl, Tennessee Warbler and Plumbeous Viero.

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

Comments: _Private surface grazing 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 grazing 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: Well is a wildcat, until production is established, no social or economic impact can be assessed.

Remarks or Special Concerns for this site

Well is to be drilled vertical pilot hole to the Otter Otter Formation, 5200' TD. Then plug back and drill to 9,580'MD/4795' TVD single lateral horizontal Heath Formation well test.

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: May 3, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology GWIC website
(Name and Agency)
Rosebud County water wells
(subject discussed)
May 3, 2012
(date)

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

May 3, 2012
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T9N R34E
(subject discussed)

May 3, 2012
(date)

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