Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Hunter Energy, LLC .
Well Name/Number: Dutton 14-21
Location: SW SW, Lot 15 Section 21 T15N R30E
County: Petroleum , **MT; Field (or Wildcat)** W/C

Air Quality

(possible concerns)
Long drilling time: No, 4 to 5 days drilling time.
Unusually deep drilling (high horsepower rig): No, 1450' TD.
Possible H2S gas production: No
In/near Class I air quality area: No
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 small rig to drill to 1450' TD.

Water Quality

(possible concerns)
Salt/oil based mud: No, surface hole will be drilled with freshwater. Mainhole will be drilled with air/nitrogen injection system utilizing dual wall pipe.
High water table: No
Surface drainage leads to live water: No, closest live water is the Musselshell river about ¼ of a mile to the northeast of this location. There is an unnamed ephemeral tributary drainage, about 1/8 of a mile to the north of this location.
Water well contamination: No, nearest water well is about 3/8 of a mile to the northeast of this location. Depth of this well is 1200'. This well will set 7" intermediate string to 1285' and cement to surface.
Porous/permeable soils: No, silty bentonitic soils.
Class I stream drainage: No

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other:

Comments: 960' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud system to be used on surface hole. Air/nitrogen will be used from 960' to TD. Drilled cuttings and mud solids will buried in an lined pit and buried on location. Pit will backfilled when dry. No concerns.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None
High erosion potential: No, moderate cut, up to 11.5' and small fill, up to 6.7', 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: No, 200'X240' location size required.
Damage to improvements: Slight, surface use grazing land.
Conflict with existing land use/values: Slight, surface use grazing land.

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
__ Other _____

Comments: Access will be from existing county road and existing oil field graded road to existing trails. Short road to be built from trail access into location, about ¼ of a mile. No special concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Residence about ¼ of a mile to the northeast of this location.
Possibility of H2S: None
Size of rig/length of drilling time: Small drilling rig/short 4 to 5 days drilling time.

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____
Comments: 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: None identified.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____
Comments: Private surface 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: Private surface lands. No concerns.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: No concerns. Well is a development well within the Cat Creek Oil Field.

Remarks or Special Concerns for this site

Well is a 1450' Third Cat Creek Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur. Well is within the Cat Creek Oil Field that has been drilled in the 1920's and produced oil ever since.

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): Steven Sasaki
(title:) Chief Field Inspector
Date: October 24, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology GWIC website
(Name and Agency)
Petroleum County water wells
(subject discussed)
October 24, 2007
(date)

If location was inspected before permit approval:
Inspection date: 10/22/07
Inspector: Mr. Alan Olson
Others present during inspection: None