

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

Operator: Nance Petroleum Corporation
Well Name/Number: Cova 8-35
Location: SE NE Section 35 T34N R58E
County: Sheridan, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 25-30 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick rig 900 HP drilling rig to drill to 11,600' TD.
Possible H2S gas production: Yes
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:

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

Comments: Existing pipeline for gas in the area. _____

Water Quality

(possible concerns)

Salt/oil based mud: Yes to long string invert oil based drilling fluids. Surface casing freshwater, and freshwater mud system to be used.
High water table: No
Surface drainage leads to live water: No, closest drainage is an ephemeral drainage, Lake Creek, about 1/4 of a mile to the west of this location.
Water well contamination: No, closest water well is 3/8 of a mile to the northeast of this location. Water well is only 80' in depth. This well will drill surface hole with freshwater to 1700' and will run 1700' of steel surface casing, which will be cemented to surface.
Porous/permeable soils: No, sandy 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: 1700' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None
High erosion potential: No, small cut, up to 4.7' and small fill, up to 4.1', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 400' X 300'

Damage to improvements: No, surface use is cultivated land.

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: Access will be off existing county road, Brotherhood Hall Road. About 338' of new access road to be built into this location off the county road. Cuttings will be buried in the lined reserve pit. Pit fluids will be hauled to a commercial disposal or drilling fluids will be recycled. Lined reserve pit will be buried when dry.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Residences ¼ of a mile to the northwest and ¼ of a mile to the south of this location. Immanuel Cemetery is ½ of a mile to the northwest of this location. The town of Coalridge is 2.5 miles to the northeast.

Possibility of H2S: Yes

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 and H2S contingency plan should mitigate any problems.

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

Remarks or Special Concerns for this site

11,600' TD Red River Formation test well.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected from the drill of this well. Some short term impacts will occur from the drilling of this of this well.

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 *Steven Sasaki*

(title:) Chief Field Inspector

Date: November 15, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Sheridan County water wells

(subject discussed)

November 15, 2007

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____