

Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: Oasis Petroleum North America LLC
Well Name/Number: Dot Federal 2759 11-13B
Location: NW NW Section 13 T27N R59E
County: Roosevelt, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 25-35 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 21,042' MD/10,503' TVD.

Possible H2S gas production: Yes, slight H2S possible, Mississippian Formations.

In/near Class I air quality area: No Class I air quality area nearby.

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: If there are existing pipeline for natural gas in the area then gas must be tied into system 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 to oil based invert drilling fluids for intermediate casing hole. Horizontal hole will be drilled with saltwater. Surface casing hole will be drilled with freshwater and freshwater mud system, rule 36.22.1001.

High water table: No high water table anticipated in the area of review.

Surface drainage leads to live water: No, closest drainages are unnamed ephemeral tributary drainages to Horse Tied Creek, about ¼ of a mile to the east and about ¼ of a mile to the west from this location. A large stock pond is situated, about 1.125 miles to the northwest from this location in Horse Tied Creek drainage.

Water well contamination: No, closest water wells are over 1 mile away in any direction from this location. This proposed oil well will be drilled with freshwater and freshwater mud to 2,191' and steel surface casing will be run and cemented to surface to protect groundwater, rule 36.22.1001.

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: 2,191' surface casing will be drilled with freshwater, steel casing will be run to 2,191' and cemented back to surface, to protect freshwater zones in adjacent water wells and covering Fox Hills aquifer, rule 36.22.1001. Adequate surface casing and operational BOP equipment to prevent problems, rule 36.22.1014.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None anticipated.

High erosion potential: Yes possible high erosion potential on moderate cut slope on the southwest corner of this location. This location will require a moderate cut of up to 25.1' and a small fill of up to 10.5', required.

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

Unusually large wellsite: Yes, a large well site 430'X420' for a dual wellsite, Dot Federal 2759 11-13B and Dash Federal 275911-13H.

Damage to improvements: Slight surface use appears to be 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 over existing county road and existing well access road. New access road will be built into this location, about 2514' into this location from the existing well access road. Oil based invert drilling fluids will be recycled. Completion fluids will hauled to a commercial Class II disposal. Cuttings and solids will be buried/solidified on site in the lined reserve pit. The lined pit will be allowed to dry and the pit backfilled. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Nearest residences are about 1.25 miles and 2 miles to the northwest from this location. The Town of Bainville, Montana is about 8.5 miles to the northwest from this location.

Possibility of H2S: Yes, slight from Mississippian Formations.

Size of rig/length of drilling time: Triple drilling rig 25 to 35 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 a working BOP stack (5,000psig annular and double ram with pipe and blind rams) should mitigate any problems, 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: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Piping Plover, Interior Lease Tern and Whooping Crane. Candidate species is the Sprague's Pipit. NH tracker website indicates, fourteen (14) species of concern, Great Blue Heron, Piping Plover,

Bobolink, Whooping Crane, Least Tern, Northern Redbelly Dace, Blue Sucker, Iowa Darter, Shortnose Gar, Sturgeon Chub, Sicklefin Chub, Paddlefish, Sauger and Pallid Sturgeon. NH Tracker website list one (1) potential species of concern: Hayden's Shrew.

Mitigation:

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

Comments: Private surface lands. There may be 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 lands. There may be 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: Wildcat well. No concerns

Remarks or Special Concerns for this site

An exploratory single lateral horizontal Bakken Formation test will be drilled to 21,042' MD/10,503' TVD.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected, some short term impacts will occur, but can be mitigated.

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: July 16, 2013

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Roosevelt County water wells
(subject discussed)
July 16, 2013
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA
COUNTIES, Roosevelt County, Montana
(subject discussed)
July 16, 2013

Montana Natural Heritage Program Website
(Name and Agency)
Heritage State Rank= S1, S2, S3, Location T27N R59E
(subject discussed)

July 16, 2013
(date)

Montana Cadastral Website
(Name and Agency)
Ownership and surface use Location: Section 13 T27N R59E
(subject discussed)

July 16, 2013
(date)

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