

## CHECKLIST ENVIRONMENTAL ASSESMENT

**Proposed Action:** Approve Drilling Permit (Form 22)

**Project/Well Name:** Vitt 16-1

**Operator:** Whiting Oil & Gas Corporation

**Location:** Section 16 25N 57E NENE

**County:** Richland MT; **Field (or Wildcat):** Wildcat

**Proposed Project Date:** 4/1/2018

### I. DESCRIPTION OF ACTION

Drilling rig to drill 9,803' MD / TVD Flat Lake, Mission Canyon, Tilston, and Lodgepole Formation test. Surface casing to be set at 2,000'.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Richland County Wells).

US Fish and Wildlife, Region 6 website  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA  
COUNTIES, Richland County

Montana Natural Heritage Program Website (FWP)  
Heritage State Rank= S1, S2, S3, T25N R57E

Montana Cadastral Website  
Surface Ownership and surface use Section 16 T25N R57E

Montana Department of Natural Resources MEPA Submittal

#### 2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Whiting Oil & Gas Corporation would have permission to drill the well

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

#### 3. AIR QUALITY

Long drilling time: No, normal drilling time 10 to 15 days.  
Unusually deep drilling (high horsepower rig): No.

Possible H<sub>2</sub>S gas production: Yes, slight H<sub>2</sub>S possible from Mississippian Formations.  
In/near Class I air quality area: No Class I air quality area in area of review.  
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – Using rig to drill to 9,803' MD / Flat Lake, Mission Canyon, Tilston, and Lodgepole Formation test. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

#### 4. WATER QUALITY

Salt/oil based mud: Yes, main hole will be drilled with oil based invert drilling fluids. Surface casing will be drilled with freshwater and freshwater mud system.

High water table: No.  
Surface drainage leads to live water: No, an unnamed ephemeral drainage exists about 3/10 of a mile to the southwest.

Water well contamination: GWIC lists a stockwater well 3/10 of a mile to the southwest, there is no depth listed. Another stockwater well / Domestic well is located 3/10 of a mile to the southwest and is 380' deep.

Porous/permeable soils: No, Sandy clay.  
Class I stream drainage: No.  
Groundwater vulnerability area: No.

Mitigation:

- Lined cuttings pit
- Adequate surface casing
- Berms/dykes, re-routed drainage
- Closed mud system
- Off-site disposal of **solids/liquids** (in approved facility)

Comments: Steel surface casing will be run and cemented to surface to protect ground water. (Rule 36.22.1001).

## 5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland.

Stream crossings: None anticipated.

High erosion potential: No, location requires a medium cut of 15.7' and medium fill of 14.6'.

Loss of soil productivity: No, if it is a dry hole the location will be reclaimed, if well is a producer the location will be downsized to accommodate only production equipment, rest of location will be reclaimed.

Unusually large wellsite (Describe dimensions): No, 400' X 400'.

Damage to improvements: Slight, surface use is grassland.

Conflict with existing land use/values: Slight, surface use cultivated field.

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

Access Road: Access will be off CR 139 and a new road of about 2,053' will be built into location.

Drilling fluids/solids: After drilling is complete, the liquids will be recycled for use on Whiting wells and then hauled to ND to be used on other wells. The cuttings will be put in a holding tank and then hauled off to a disposal facility.

## 6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: Nearest residence is 3/10 of a mile to the southwest. The Town of Fairview, MT is about 15 miles to the southeast.

Possibility of H2S: Yes, slight H2S possible from Mississippian Formations.

Size of rig/length of drilling time: 10-15 days drilling time.

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other:

## 7. WILDLIFE/RECREATION

Sage Grouse: No.

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species listed as threatened or endangered in Richland County are: Pallid Sturgeon, Piping Plover, Interior Least Tern, Whooping Crane, and Northern Long-eared Bat. The Montana Natural Heritage Program site lists one (1) species of concern: Whooping Crane.

Mitigation:

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

Comments: Private cultivated 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. No concerns.

**IV. IMPACTS ON THE HUMAN POPULATION**

**8. HISTORICAL/CULTURAL/PALEONTOLOGICAL**

Proximity to known sites: None.

Mitigation

- avoidance (topographic tolerance, location exception)
- other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

**9. SOCIAL/ECONOMIC**

Substantial effect on tax base

- Create demand for new governmental services
- Population increase or relocation

Comments: No concerns.

**IV. SUMMARY**

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.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> John Gizicki	<b>Date:</b> 02/27/18
	<b>Title:</b> Compliance Specialist	