

## CHECKLIST ENVIRONMENTAL ASSESMENT

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

**Project/Well Name:** High Butte Ranch 1

**Operator:** Falcon Energy Partners, LLC

**Location:** SWNE Section 22 T11N R28E

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

**Proposed Project Date:** 10/01/2018

### I. DESCRIPTION OF ACTION

Falcon Energy Partners, LLC plans to drill a well for a Piper/Amsden/Tyler/Heath formation test 4,480' MD / TVD.

### II. PROJECT DEVELOPMENT

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

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

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Musselshell County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T11N R28E

Montana Cadastral Website

Surface Ownership and surface use Section 22 T11N R28E

Montana Department of Natural Resources MEPA Submittal

#### 2. ALTERNATIVES CONSIDERED

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

Action Alternative: Falcon Energy Partners, LLC would have permission to drill the well.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

#### 3. AIR QUALITY

Long drilling time: No, 3-5 days drilling time.

Unusually deep drilling (high horsepower rig): No, drilling rig for a 4,480' MD / TVD well. The objective formation is the Heath.

Possible H<sub>2</sub>S gas production: Possible in Mississippian formations.

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. AQB review.

Comments: No special concerns – using rig to drill well to 4,480' MD / TVD. 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: Freshwater based mud will be used on surface casing. KCL based mud will be used on main hole.

High water table: No high-water table anticipated at this location.

Surface drainage leads to live water: No, an unnamed ephemeral drainage is located about 1/5 of a mile to the southeast and 1/10<sup>th</sup> of a mile to the north.

Water well contamination: No water wells within a 1/2 mile radius.

Porous/permeable soils: No, sandy clay.

Class I stream drainage: No.

Groundwater vulnerability area: No.

Mitigation:

Lined reserve pit: 16 mil.

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 set to 450' 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, a small cut of 5.6' and a small fill of 6.8' is required.  
Loss of soil productivity: None, location to be restored after drilling well, if well is nonproductive.

Unusually large wellsite (Describe dimensions): No, a large location will be used, 200' X 200'.

Damage to improvements: Slight, surface use is grassland.

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

Access Road: From Hwy 12 proceed north on Fourmile Rd for 14.3 miles to private road. From private road go 1.1 miles until start of new access. A new access of 480' will be built into location.

Drilling fluids/solids: Liquids remaining in reserve pit will be collected and transported to a third-party disposal facility. The remaining contents of the pit will be solidified with fly ash prior to final closure. Once solidified, the liner will be folded over the pit and buried.

## 6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within ½ mile radius.

Possibility of H2S: Possible in Mississippian formations.

In/near Class I air quality area: No.

Size of rig/length of drilling time: 3-5 days drilling time.

Mitigation:

- Proper BOP equipment: Using diverter.
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other:

## 7. WILDLIFE/RECREATION

Sage Grouse: In core area. Review submitted to the Sage Grouse Habitat Conservation Program, waiting for letter.

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: No species identified as threatened or endangered. MTFWP Natural Heritage Tracker website lists four (4) species of concern, the Black-tailed Prairie Dog, Golden Eagle, Burrowing Owl, and Greater Sage Grouse. Special status specie is the Bald Eagle.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DNRC Trust Lands, **Sage Grouse Habitat Conservation Program**)

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. 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.

**EA Checklist  
Prepared By:**

**Name:** John Gizicki  
**Title:** Compliance Specialist

**Date:** 09/06/18