

## CHECKLIST ENVIRONMENTAL ASSESMENT

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

**Project/Well Name:** Blue Ridge 20-2

**Operator:** Goldrock Minerals, LLC

**Location:** SWSWNW Section 20 T3S R25E

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

**Proposed Project Date:** 09/10/2018

### I. DESCRIPTION OF ACTION

Goldrock Minerals, LLC plans to drill a vertical well for a Greybull formation test TD/TVD 1,000'.

### II. PROJECT DEVELOPMENT

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

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

US Fish and Wildlife, Region 6 website

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

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T3S R25E

Montana Cadastral Website

Surface Ownership and surface use Section 20 T3S R25E

Montana Department of Natural Resources MEPA Submittal

#### 2. ALTERNATIVES CONSIDERED

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

Action Alternative: Goldrock Minerals, LLC would have permission to drill the well.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

#### 3. AIR QUALITY

Long drilling time: No, 2-3 days drilling time.

Unusually deep drilling (high horsepower rig): No, drilling rig for a TD/TVD 1,000' well. The objective formation is the Greybull.

Possible H<sub>2</sub>S gas production: None anticipated.

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 1,000' TD/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: Air drilling will be used.

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

Surface drainage leads to live water: No, an ephemeral drainage is located about 1/5 of a mile to the south and 1/5 of a mile to the north. These drainages lead to Spring Creek – located about 4/5 of a mile to the southwest.

Water well contamination: No water wells within a 1/2-mile radius of this location.

Porous/permeable soils: No, silty sandy bentonite soils.

Class I stream drainage: No.

Groundwater vulnerability area: No.

Mitigation:

Lined reserve 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 set to 100' and cemented to surface to protect ground water. (Rule 36.22.1001).

#### 5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland/cultivated.

Stream crossings: None anticipated.

High erosion potential: No, a small cut of 3.6' and a small fill of 4.6' 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/cultivated field.

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: Access will be off existing two track. Two-track is found off Price Hill Rd.

Drilling fluids/solids: Pit will be allowed to dry and then backfilled.

## 6. HEALTH HAZARDS/NOISE

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

Possibility of H2S: None anticipated.

In/near Class I air quality area: No.

Size of rig/length of drilling time: 2-3 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: 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 identified as threatened or endangered are the Red Knot, and Whooping Crane. MTFWP Natural Heritage Tracker website lists three (3) species of concern, the Black-tailed Prairie Dog, Greater Sage-Grouse, and Yellow-billed Cuckoo.

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.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> John Gizicki	<b>Date:</b> 09/04/18
	<b>Title:</b> Compliance Specialist	