

CHECKLIST ENVIRONMENTAL ASSESMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Hook #32-1 SWD

Operator: Hydra MT, LLC

Location: SW SE Section 32 T26N-R59E

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

Proposed Project Date: 9/1/2019

I. DESCRIPTION OF ACTION

Hydra MT LLC plans to drill a well to use as a class II injection well in the Dakota Formation. Surface casing to be set at 1,900'. Proposed TD is 5,870' MD / 5,870' TVD.

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, T26N R59E

Montana Cadastral Website
Surface Ownership and surface use Section 32 T26N R59E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not drilled for use as a class II injection well.

Action Alternative: Hydra MT LLC would have permission to drill the well for use as a class II injection well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 5-7 days.
Unusually deep drilling (high horsepower rig): No.

Possible H₂S gas production: None anticipated.
In/near Class I air quality area: No
Air quality permit for flaring/venting: No, this is a disposal well.

Comments: No special concerns – using rig to drill to 5,870' TD for use as a class II injection well.

4. WATER QUALITY

Salt/oil based mud: freshwater to be used on surface hole. An oil-based mud will be used on intermediate and production intervals.

High water table: No.

Surface drainage leads to live water: No, the nearest drainage is an unnamed ephemeral drainage 1/4 of a mile to the west. The Missouri River Main Canal is located about three miles to the northeast.

Water well contamination: GWIC reports that there are two domestic water wells about 1/2 a mile to the south and are 60', and 110' deep. GWIC also lists three industrial wells in T25N-R59E-05 with depths of 140', 145'. And 149'.

Porous/permeable soils: No, sandy clay.

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 is set at 1,900' to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Cultivated land.

Stream crossings: None anticipated.

High erosion potential: Slight, medium cut of 14.4' and small fill of 5.2' required.

Loss of soil productivity: No, location to be restored after drilling, if plugged.

Unusually large wellsite (Describe dimensions): No, 250' by 300'.

Damage to improvements: None.

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 road 142 and existing dirt road. A new access of 45' will be built into location.

Drilling fluids/solids: While drilling, cuttings will be collected, dried, and hauled to a commercial disposal site. After drilling the liquids will be hauled to a commercial disposal site.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within a ½ mile radius. Nearest town is Fairview, MT and is about 7 miles to the south east.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time: Small rig, 5-7 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 identified.

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, MT are the Pallid Sturgeon, Piping Plover, Interior Least Tern, Whooping Crane, and Northern Long-eared

Bat. The Montana Natural Heritage Program lists seventeen (17) species of concern, Northern Myotis, Great Blue Heron, Veery, Piping Plover, Black-billed Cuckoo, Whooping Crane, Red-headed Woodpecker, Least Tern, Northern Redbelly Dace, Blue Sucker, Iowa Darter, Shortnose Gar, Sturgeon Chub, Sicklefin Chub, Paddlefish, Sauger, and Pallid Sturgeon.

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:

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: 08/07/19
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