

CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Reddig 42-10

Operator: Lustre Oil Company, LLC

Location: SE NE Section 10 T30N R44E

County: Valley MT; **Field (or Wildcat):** Lustre

Proposed Project Date: 03/15/2022

I. DESCRIPTION OF ACTION

Lustre Oil Company, LLC plans to drill a well to 5819' MD / 5812' TVD to test the Ratcliffe Formation in an open hole completion.

II. PROJECT DEVELOPMENT

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

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

US Fish and Wildlife, Region 6 website

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

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T30N R44E

Montana Cadastral Website

Surface Ownership and surface use Section 10 T30N R44E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be re-entered.

Action Alternative: Lustre Oil Company, LLC would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 3-6 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple drilling rig to drill well.

Possible H₂S gas production: None anticipated.

In/near Class I air quality area: Yes, within boundary of the Fort Peck Indian Reservation.

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 5819' MD / 5812' TVD to test the Ratcliffe Formation. 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: Use freshwater and freshwater mud system for surface hole. Water based KCl mud to be used on intermediate. Oil based mud to be used for drilling production interval.

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

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral drainage about 740' to the south and 1/5 of a mile to the east.

Water well contamination: Surface casing to be set to 1,000' and cemented back to surface to protect groundwater. The nearest water well, according to GWIC, is listed as a stockwater well and domestic water well and is about 3/10 of a mile to the northeast and is 130' deep. Uintah Engineering & Land Surveying lists a water well 1/4 of a mile to the northeast, but it is listed as a petroleum well on GWIC.

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 will be run to 1000' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland.

Stream crossings: Only ephemeral drainages.

High erosion potential: Moderate potential, a medium cut of 15' and a large fill of 24.6' required.

Loss of soil productivity: None, location to be restored after drilling well, if well is nonproductive.

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

Damage to improvements: Slight, surface use is grazing 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

Access Road: Access will be off Mb Church Road, existing dirt road. A new access of 2,612' will be built into location from dirt road.

Drilling fluids/solids: Lustre will be utilizing a closed loop system and will be processing the cuttings through Clean Harbor's centrifuge and Poly tanks. The cuttings will be flock/processed before they are hauled to Wisco/Omni Environmental for disposal. Drilling fluids will also be processed back to clean KCL fluid and sent to Wisco/Omni for disposal as well.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within 1/4-mile radius. The nearest residence is located about 3/10 of a mile to the northeast.

Possibility of H2S: None anticipated.

In/near Class I air quality area: Yes, within boundary of the Fort Peck Indian Reservation.

Size of rig/length of drilling time: 3-6 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: General habitat. Waiting for program analysis.

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 in Valley County are the Pallid Sturgeon, Whooping Crane, Piping Plover, Red Knot, Northern Long-eared Bat, and Monarch Butterfly. MTFWP Natural Heritage Tracker website lists seven (7) species of concern. They are the Hoary Bat, Swift Fox, Sprague's Pipit, Ferruginous Hawk, Chestnut-collared Longspur, Baird's Sparrow, and Brewer's Sparrow.

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 grass 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:**

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Title: Compliance Specialist

Date: 02/01/22