



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

June 20, 2024

Ken Nelson
Wharf Resources (USA) LLC
10928 Wharf Road
Lead, SD 57754

Re: EXNI 454 for Wharf Resources Exploration Drilling in Portions of Sections 34 and 35; T5N-R2E, Lawrence County

Dear Mr. Nelson:

The department is in receipt of the Exploration Notice of Intent (EXNI) that you filed with our office on April 17, 2024, with supplemental information submitted on April 24, 2024. The department has determined the Notice of Intent to be procedurally complete. Based on our review of your Notice, we determine the following restrictions are required:

1. This project shall be conducted and reclaimed in such a manner as to prevent any violation of the beneficial uses of specified water quality criteria of any water resources in the area. In accordance with Chapter 74:51, all surface waters of the state have been assigned the following beneficial uses:
 - 9) Wildlife Propagation, recreation, and stock watering waters; and
 - 10) Irrigation waters
2. Any discharge from the site will be directed to a settling pond or flat vegetated area to allow suspended solids to settle out. For any discharge into a dry draw or gulch, a South Dakota Surface Water Discharge Permit may be required prior to discharge.
3. For any creek or dry drainage crossings, Wharf Resources shall construct the crossing to protect the creek or drainage from erosion, sedimentation, and other damage caused as a result of providing necessary access to exploration activities by vehicles in the area of potential effect (APE). Plans and specifications for each creek crossing area shall be provided to the department prior to construction. If necessary, Wharf Resources shall obtain Surface Water Discharge Permit or 404 permit as necessary before beginning construction in the creek.
4. Wharf shall develop plans and specifications for any drill trail or drill pad that will be constructed on talus slopes. The plans shall include sediment and erosion control, drill pad construction and sump construction in talus slope areas.

5. To ensure optimal soil erosion protection, all affected lands shall have adequate sedimentation and erosion control measures applied pursuant to SDCL 45-6C-32 and according to Best Mineral Management Practices. These measures shall be in the form of waterbar construction on access roads where appropriate; revegetation of roads; road embankment slopes; and the installation of straw bale or silt fence type sediment filters wherever necessary. Wharf Resources shall inspect, clean out, repair, or upgrade the sediment controls as necessary to prevent degradation of surface waters of the state.
6. All topsoil shall be salvaged and stockpiled whenever possible for use in reclamation. Salvaged topsoil shall be seeded with the approved seed mix while in stockpile.
7. When drilling fluids are used and/or when ground water is encountered during drilling, the drilling fluids shall be sufficiently contained to prevent overland flow or discharge to any waters of the state. If water tanks area used in lieu of mud pits, they shall also be sufficiently contained.
8. When mud pits are being utilized in drilling a hole, where possible, these pits shall be constructed on the uphill side of the drill pad. In exceptionally steep terrain, or in a location where a sump may not be kept away from the downhill side of a pad or along narrow ridgelines, it is recommended that Wharf Resources line the mud pits to prevent potential seepage.
9. Drill pads construction may come no closer than 50 feet to any stream or dry stream channels during the course of exploration.
10. Wharf Resources shall spray weeds in all disturbed areas and surrounding areas, up to 50 feet from disturbed areas within the APE, including along access roads within the exploration permit boundary. Weed control on all disturbed or reclaimed areas is required until this EXNI is released of reclamation liability by the Board of Minerals and Environment.
11. During periods of active exploration drilling, Wharf Resources shall provide, via email, a weekly report outlining when and where exploration holes are being drilled so the department can plan inspections and witness plugging activities.
12. In the instance sulfate minerals are encountered during drilling activities, Wharf Resources shall perform paste pH analyses on mud pits and report the findings to DANR prior to reclamation if pH adjustments are necessary for the material in the mud pits. If deemed necessary by DANR, Wharf Resources shall amend the pit with lime or other buffer material and provide a report outlining reclamation performed at the drill site.
13. All test holes shall be capped, sealed and plugged according to ARSD 74:11:08 (Plugging Standards) or alternative plugging method approved by DANR immediately following drilling and probing.
14. If surface casing is used in exploration holes, the following requirements shall be met:

- a) Prior to removal of surface casing, the hole shall be plugged in accordance with ARSD 74:11:08 or alternative plugging method approved by DANR to a level just below the bottom of the surface casing.
 - b) Following step a), the casing will be removed (when possible) or cut off at least one foot below the ground surface.
 - c) The remainder of the hole will be plugged in accordance with ARSD 74:11:08 or alternative plugging method approved by DANR.
15. Wharf Resources shall notify the department, in writing, when exploration drilling penetrates an aquifer. Notification shall be provided as soon as possible, but not more than 90 days after penetration of the aquifer. Notification shall include the location of the test hole penetrating the aquifer.
 16. When affected roads and drill pad areas associated with the APE are no longer necessary for further exploration purposes, reclamation must be completed on these disturbed areas within 12 months. If Wharf Resources plans to continue exploration in disturbed areas but must temporarily cease exploration activities, reclamation must be completed within 24 months. Wharf Resources may submit a request to extend these deadlines as necessary to the DANR.
 17. Reclamation must be completed on all affected acreages of the APE within 12 months following completion of all exploration activities conducted by Wharf Resources allowed under this Notice.
 18. The following seed mix shall be used for reclamation of the affected areas:

Alsike Clover	0.13 PLS/acre
Slender Wheatgrass	2.81 PLS/acre
Western Wheatgrass	4.86 PLS/acre
Thickspike Wheatgrass	3.37 PLS/acre
Hard Fescue	0.39 PLS/acre
Pubescent Wheatgrass	3.96 PLS/acre
Big Bluestem	1.49 PLS/acre
Canada Wildrye	0.76 PLS/acre
Western yarrow	0.02 PLS/acre
Purple prairie clover	0.15 PLS/acre

In addition, Wharf Resources may utilize Annual Ryegrass at a rate of less than 2 PLS/acre.

19. Wharf Resources shall notify the Department of Game, Fish and Parks (GF&P) of raptor nests within the vicinity of exploration activities. Following notification, GF&P will verify if the nesting raptor requires operational special constraints.
20. Prior to the establishment of new exploration drill trails (timber thinning, logging, road staking, construction or maintenance and drilling), pedestrian surveys on 50' on either side of the proposed exploration disturbance will document, identify, and flag the occurrence

of raptor nests, open mine adits, potential wildlife trees and SD NHP rare plants. Pedestrian surveys must be initiated between March 1 and August 31 to coincide with periods of activity or growth of plant species tracked by the SD/GF&P Natural Heritage Program. Staff conducting surveys must be qualified in recognizing target species and habitats. GFP Energy and Mineral Coordinator shall be notified upon initiation, completion, and results of surveys.

21. Wharf shall follow the recommendations outlined in the letter dated May 24, 2024, from Dustin Lloyd of the Archaeological Research Center.
22. If any human remains, animal bones, artifacts, cultural features, foundation remnants, or other evidence of previously unrecorded past human use are discovered within the project area during the exploration or related activities, all work should be halted and the area in and around the discovery area should be protected. Wharf Resources should then immediately notify Renee M. Boen, the state archaeologist, at (605)394-1936 or (605)381-8738.

Please note that we have assigned your Notice of Intent the following number: **EXNI-454**. This Notice allows you to conduct only the type and amount of work which is hereby being approved. Any additional work must be covered by the submission of a new Notice to our office. Wharf Resources may commence with the operation contingent upon compliance with the above restrictions.

Thank you for your interest in and consideration for the natural resources of South Dakota.

Sincerely,

\s/

Roberta Hudson
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Minerals and Mining Program
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cc: Stan Michals, Department of Game, Fish and Parks
Dustin Lloyd, Archaeological Research Center
Gage Koistinen, Rapid City Office