

**DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES  
RECOMMENDATION  
WHARF RESOURCES (USA) INC  
LARGE SCALE MINE PERMIT APPLICATION**

The Department of Agriculture and Natural Resources is recommending conditional approval of Wharf Resources (USA) Inc.'s large scale mine permit application for an expansion of its current large scale heap leach gold operation. The resident agent is CT Corporation System, 319 South Coteau Street, Pierre, South Dakota 57501. The legal location of the operation is portions of Sections 2 and 3; T4N-R2E, Lawrence County. The general location is approximately four miles west of Lead, South Dakota.

The proposed mine expansion project will involve open pit mining and disposal of overburden primarily to the south and west of the existing Wharf Mine. Ore extracted from the expansion area will be hauled to the existing heap leach facility at the Wharf Mine for processing. As new mine areas are developed, waste rock and overburden will be used to backfill previously mined areas. A total of approximately 40.6 acres of permitted affected land will be disturbed during the life of the project. Wharf will also disturb 7.6 acres of new permitted affected land within the current mine permit boundary. Total estimated production is 31.9 million tons of material. The proposed postmining land use is rangeland.

**REASONS FOR APPROVAL**

As required under ARSD 74:29:01:15, the department is recommending conditional approval of Wharf Resources' permit application since it addresses all of the requirements of SDCL 45-6B and ARSD 74:29. The application, with the Department's recommended conditions (below), provides the necessary safeguards to protect the environment during and following operations and to ensure the affected land is reclaimed to a beneficial use following operations.

**RECOMMENDED CONDITIONS**

Technical Revisions

The Board of Minerals and Environment (board), pursuant to ARSD 74:29:03:16, hereby authorizes the Department of Agriculture and Natural resources (department) to approve proposed technical revisions to Wharf Resources' (Wharf) Boston Expansion Project mining permit for the following:

1. Modifying monitoring plans, locations, parameters, and time frames;
2. Modifying compliance limits for chemical parameters as allowed within the mining laws and mine permit, including spent ore off-load criteria;
3. Submitting and modifying plans and specifications for permitted facilities;
4. Modifying or relocating erosion, sedimentation, or drainage control structures other than those defined in the existing site Stormwater Protection Plan;
5. Modifying reclamation seed mixes or rates beyond substituting a variety of species based on seed availability;
6. Modifying freshwater manner of use and source as allowed by water rights permits;

7. Modifying dust control methods;
8. Modifying blasting methods and procedures beyond simple adjustments for safety or efficiency;
9. Adding or modifying ancillary facilities within the permit boundary, including equipment and chemical storage areas, parking lots, office buildings, septic systems, perimeter fencing, utilities (phone lines, natural gas lines, power lines, water lines), crushing areas, sludge ponds, and stockpiles;
10. Modifying pit and rock facility configurations within permitted disturbance limits consistent with geotechnical considerations;
11. Modifying and relocating state, county, and private roads and haulage routes within the permit boundary when not within the active mine pit areas;
12. Modifying topsoil stripping plans and storage areas;
13. Modifying the reclamation plan within the constraints of ARSD 74:29:03:01;
14. Modifying the mine operating plan within the constraints of ARSD 74:29:03:01;
15. Implementing new surface mining techniques or types of equipment;
16. Modifying the gold recovery methodology to improve performance, recovery, or environmental aspects;
17. Modifying action leakage response schedules and leakage response action plans;
18. Providing for or modifying long-term active water treatment;
19. Modifying postclosure plans and monitoring time frames;
20. Modifying handling procedures for potential acid generating rock;
21. Modifying reclamation or vegetation success standards;
22. Modifying spent ore backfilling plans to include the American Eagle, Portland, and Trojan pit areas subject to obtaining necessary Groundwater Discharge Plans;
23. Modifying mine designs and disturbance areas to include contiguous areas of potential ore;
24. Expanding leach pad footprint for better drainage, rinsing, and production;
25. Building additional lined spent ore impoundments for environmental purposes to provide additional water treatment;
26. Adding water storage capacity when it entails building new ponds;
27. Changing, modifying, developing, enhancing, or increasing water treatment technology and water treatment regimes;
28. Modifying pad parameters to enhance leaching or draindown characteristics;
29. Developing and implementing other mineral processing technologies that would improve both economic and environmental aspects;
30. Modifying reporting procedures and parameters as allowed within the mining laws and mine permit;
31. Allowing use of Contingency Pond or other ponds as batch ponds, temporary process, or neutralization ponds;
32. Changing the slope angle for final reclamation of specific sites where visually and functionally compatible or for improved aesthetics;
33. Modifying stocking guidelines and reclamation success standards to reflect climatic conditions;
34. Specifying mine facility type within areas of ancillary disturbance within the permitted affected acreage prior to disturbance within this area; and
35. Placing or modifying slash piles on reclaimed surface areas, or in-pit as part of backfilling efforts.

Technical revisions must comply with ARSD 74:29:03:03 and must be submitted to the department in writing. The department shall approve, disapprove, conditionally approve, or request additional information deemed necessary to approve technical revisions within thirty days of receipt.

## General

1. The conditional approval of this permit application incorporates by reference those representations made by Wharf, as to plans, specifications, operations, environmental impacts, and reclamation as contained in the permit application submitted June 13, 2022, with supplemental information submitted on October 17, 2022, November 28, 2022, December 2 and 6, 2022, and March 8 and 9, 2022. The representations contained in these documents are general conditions of this permit unless modified by a future technical revision, amendment, or permit, or modified by other conditions imposed by the board.
2. This permit and all rights under it are expressly conditioned on the truth of representations made by the applicant, Wharf, its officers, and employees in the application and supporting documentation relating to the application. Should any material representation prove to be false, this permit and all rights under it may be canceled by the board.
3. This permit is conditioned upon compliance with all applicable laws and regulations.
4. The conditions of Permit 490 apply to the entire mining operation, including Permit Nos. 356, 434, 435, 464, and 476. These conditions supersede similar conditions in previous mine permits, amendments, and technical revisions. Any conditions in previous mine permits, amendments, and technical revisions that do not conflict with these conditions remain in effect as applicable.
5. The operation shall be conducted in compliance with all Lawrence County Zoning Requirements and Conditional Use Permit conditions.
6. Wharf shall abide by the recommendations proposed at the time of permit approval by the South Dakota Department of Tourism, the South Dakota Department of Game, Fish and Parks, and the South Dakota Department of Health, except as modified or restated in these conditions.
7. All monitoring systems described in the permit application or as modified by the department or the board shall be implemented. Changes to monitoring systems must be approved by the department through technical revisions.
8. Wharf shall, whenever and wherever compatible with the mining operations, retain trees to visually screen the operation and minimize effects to existing wildlife habitat.
9. Wharf shall notify all affected parties of planned utility disruptions at least 48 hours prior to utility relocation. The notifications, either verbal or written, shall state the expected time, date, and length of the disruption.
10. As much as practicable, Wharf shall maintain traffic flow along SD Highway 473 through the permit area for the life of the project.

### Other Permits

1. Wharf shall obtain or modify, as necessary, any additional surface water discharge or ground water discharge permits for the project area.
2. These conditions do not change the requirements of other existing permits, including Ground Water Discharge Plans and Surface Water Discharge Permits.
3. Wharf shall obtain a US Corps of Engineers 404 permit, if required, prior to initiating construction or mining activities that affect the waters of the United States.
4. Wharf shall obtain, as necessary, any federal or state permit, if required, prior to taking, possessing, breaking, or destroying any nest or the eggs of the kinds of birds, which the taking or killing at any time or at all times is prohibited.

### Acid Rock Drainage Prevention and Management

1. If unanticipated conditions are encountered during the course of mining, such as greater than anticipated sulfide mineralization, that are not adequately manageable as determined by the department under the approved reclamation plan and these conditions, the department or the board reserve the right to reopen and modify the permit and increase the reclamation bond as necessary to mitigate potential adverse conditions.
2. The department may require analysis of rock or ore whenever mining encounters an unanticipated geochemical condition which has the potential to be a source of water pollution, such as greater than anticipated sulfide mineralization. Analysis may consist of static (acid-base accounting (ABA)), paste pH, and kinetic (humidity cell, weathering cells, or column leach) tests, or other appropriate tests.

Based on the results of the rock analysis, the department may require Wharf to assess potential water quality impacts that may occur as a result of disposing of the rock as pit backfill or in waste rock facilities. In assessing the potential water quality impacts, the department may require Wharf to conduct a pathway and fate analysis of the resulting contaminants. Based on the assessment and the pathway and fate analysis, the department reserves the right to apply additional, site-specific rock handling conditions. Special rock handling practices may include, but are not necessarily be limited to, isolating acid-producing and/or metal-leaching rock or blending with alkaline rock.

3. Unless modified by other conditions in this section, during mining of the Boston Expansion Project, Wharf shall abide by its Acid Rock Management Plan and the conditions of the Technical Revision approved September 30, 2002, regarding the acid rock drainage prevention plan for the Trojan Pit.
4. All Boston Expansion Project ore having an acid neutralization potential to acid generating potential ratio (ANP/AGP ratio) of less than 3:1 shall be amended or blended with limestone or another suitable base amendment in an amount sufficient to attain an ANP/AGP ratio of at least

- 4:1. Wharf may use other ore with a high neutralization potential and low total sulfur content as base amendments. Wharf shall track amounts and type of base amendment added, calculate the neutralization potential of the amendments, and report this data with the annual water quality report.
5. To the greatest extent possible, Wharf shall design the Flossie and Portland Pit expansions into the Boston area to minimize the amount of acid generating rock exposed in the highwalls. Measures to reduce acid generating rock in the highwalls may include, but are not limited to:
- a. Expanding pit walls to remove narrow bands of acid generating rock;
  - b. Moving pit walls inward to stay within the oxidized boundary and avoid zones of acid generating rock;
  - c. Removal of small areas of acid generating rock; and
  - d. Creating flat areas in zones of acid generating rock, allowing for cover fills to be installed.
6. If at mine closure, spent ore composed of potentially acid generating rock is to remain and be reclaimed on the leach pad, Wharf shall submit a plan, outlining reclamation alternatives, for this material. The plan shall be submitted for approval to the department prior to mine closure. Based upon the reclamation alternative selected, the department or the board reserves the right to adjust the reclamation bond as necessary.

### Water Quality

1. Leachate discharge or surface water runoff from the site shall not cause South Dakota Ground Water Discharge Plan requirements, South Dakota Surface Water Discharge Permit requirements, or ground and surface water quality standards, as appropriate, to be violated. There shall not be any unauthorized loss or release of cyanide or any other toxic constituent associated with the gold recovery process to the surface or subsurface environment outside the mine permit boundary.
2. If Wharf's South Dakota Surface Water Discharge Plan is terminated, South Dakota surface water quality standards will apply, as appropriate.
3. If Wharf's South Dakota Ground Water Discharge Permits are terminated, South Dakota ground water quality standards will apply as appropriate.
4. Wharf shall make every effort to maintain process solutions at normal operating levels. Excess solutions shall be disposed of, and treated, if necessary, as soon as practicable.
5. Wharf shall effectively manage and treat nitrate in mining impacted waters as long as necessary to meet surface and ground water quality standards or to comply with ground water and surface water discharge permits, as applicable.
6. Wharf shall maintain safe and adequate process solution management and shall prevent the uncontrolled release of process solution in the event of an electrical power outage.

7. Wharf shall submit an updated hydrologic monitoring plan for the closure period. This plan shall be submitted prior to mine closure, and is subject to department approval. This plan shall include surface and ground water quality monitoring stations, springs and seeps, and include monitoring parameters, testing methods, quality assurance/quality control, and sampling schedules. This plan will be in effect until the postclosure hydrological monitoring plan is approved.
8. The department reserves the right to modify the hydrologic monitoring plan if monitoring results indicate that a modification is warranted. Modifications may include establishing additional surface and ground water monitoring sites, adding parameters, changing sampling frequency, changing sampling schedules, or modifying Wharf's Ground Water Discharge Plans or Surface Water Discharge Permits.
9. On or prior to March 1 of each year the mine is in operation, Wharf shall submit an annual surface and ground water characterization report beginning the year the mine permit is granted. This report shall include, but not necessarily be limited to, all chemical, discharge, and water level data gathered, and an interpretation of the data. Wharf shall submit all supporting surface water and ground water sampling and laboratory data sheets as part of this report.
10. Wharf will work to develop effective treatment technologies to reduce elevated selenium concentrations noted in False Bottom Creek. During the development of plans to remediate the elevated selenium concentrations, Wharf shall provide regular monthly updates to the department. Final plans for any water treatment installed to treat selenium circuit must be presented to the department prior to installation. Wharf shall follow any additional requirements stipulated as part of the Surface Water Discharge Permit to address selenium issues at the mine

#### Surface and Ground Water Mitigation Plans

1. If any component of the facility contaminates surface and ground waters to the point that requirements of the Ground Water Discharge Plans, Surface Water Discharge Permit, ground and surface water quality standards, or site specific performance monitoring criteria developed pursuant to Condition No. 1 under "Performance Monitoring" (below) are violated, the department may, in conjunction with an enforcement action, require Wharf to develop and submit a site-specific mitigation plan for the department's review and approval. The plan shall describe those measures that will be taken to mitigate and prevent surface or ground water contamination. Such measures may include, but are not limited to:
  - a. Installing additional water treatment system facilities;
  - b. Installing capping systems; and
  - c. Treating contaminated ground water or surface water.

Wharf shall include cost estimates for implementing contingency measures. If the department determines that further remedial measures are needed, the department reserves the right to require Wharf to submit for approval plans and specifications and construction quality assurance plans.

## Sediment and Erosion Control

1. Erosion and sedimentation controls shall be in place and functional during all phases of clearing, earthwork, construction, mining, and reclamation, and during the postclosure period in the permit area, in accordance with Wharf's General Storm Water Construction Permit. Wharf shall submit a sediment control map for the permit area, including the Boston Expansion area, showing sediment control locations and type prior to any land disturbance in the permit area. The Best Management Practices/Storm Water Pollution Prevention Plan shall be updated as needed.

Interim sedimentation and erosion controls shall be used on disturbed land during clearing, construction, mining, and reclamation until these areas are stabilized, in accordance with the General Storm Water Construction Permit.

Wharf shall inspect, clean out, repair, or upgrade sediment controls as necessary to maintain compliance with its Surface Water Discharge Permit and Storm Water Permit as applicable.

2. Wharf shall install rock check dams, diversion ditches, or other adequate structures needed to minimize channelization and erosion from surface runoff. Surface water diversions and final reclamation drainage channels must meet the requirements of ARSD 74:29:07:09.

## Plans and Specifications – General

1. Detailed plans and specifications of any facilities that are designed to prevent environmental contamination or to treat contaminated material shall be submitted to the department for written approval prior to construction. The department recognizes that the plans and specification in the mine permit application are conceptual. These plans and specifications must be completed to the 100 percent constructible stage. The department will not unreasonably withhold its final approval of the plans and specifications if they reflect the technical parameters specified in the permit. Facilities for which plans and specification are required include, but are not limited to:
  - a. Diversion ditches and culverts;
  - b. Major sedimentation ponds and control structures;
  - c. Future expansion of the leach pads or processing facilities; and
  - d. Future spent ore impoundments.

Within 30 days of submission, the department shall approve, disapprove, conditionally approve, or request additional information necessary to approve the plans and specifications. If disapproved, the department shall identify those items necessary for approval. If plans and specification are disapproved or a request for additional information is made, the department shall have 30 days after receipt of Wharf's response to approve, conditionally approve, or disapprove the plans and specifications.

2. Conditions placed on plans and specifications approvals by the department shall be considered permit conditions. Conditions placed on plans and specifications will not alter the conceptual design of the facility as permitted. Wharf may request a hearing before the board to contest any conditions placed on plans and specifications approvals.

3. If the department requires, Wharf shall submit to the department as-built drawings (record drawings) complete with technical specifications for facilities required to have plans and specifications submitted. Wharf shall submit the required drawings within 60 days of completion of each component of the facility.

#### Construction Quality Assurance (CQA)

1. As part of a detailed plans and specifications document, if the department requires, Wharf shall submit a CQA plan for any facilities requiring lining systems. If required, the CQA plan shall be submitted to the department for review and approval.
2. Conditions placed on CQA methods, monitoring, testing, sampling, and documenting, shall be considered permit conditions. Wharf may request a hearing before the board to contest any conditions placed on CQA plan approvals.

#### Air Quality and Noise

1. Wharf shall effectively control fugitive dust and other air emissions during all phases of clearing, earthwork, construction, mining, and reclamation for the Boston Expansion area. Dust control measures shall include the use of water trucks, dust suppressants, dust filters on equipment, and revegetating disturbed areas as soon as practicable.
2. The department reserves the right to require Wharf to reestablish air quality and ambient air monitoring if site air quality conditions warrant. This may include establishing an upwind and downwind PM10 ambient air quality monitoring network in accordance with the requirements in 40 CFR Part 50 and Part 58.
3. In accordance with ARSD 74:29:07:02(2), affected lands shall be cleared in small sections or increments to reasonably match the needs of mine production and to reduce the amount of dust generated by the operation.
4. Wharf shall notify the department within five working days of written complaints from landowners adjacent to the operation concerning dust, noise, and blasting. Wharf shall submit to the department a copy of any reports or mitigation plans submitted to Lawrence County regarding the complaints. The department, on finding that a complaint is based in fact on potential permit violations, may require Wharf to develop a mitigation plan to correct the potential violation. The completion date for the mitigation plan will be set at the time of the department's request.
5. Upon the department request, Wharf shall provide to the department blast and noise monitoring data.



### Wildlife Protection

1. Wharf shall install protective structures and make every effort to contain solutions and chemicals and keep areas harmful to wildlife in a condition where access by wildlife is eliminated. This should include, but is not limited to, major haul roads, process and retention ponds, drainage ways, leach pads and process solution delivery systems, and process buildings.
2. Wharf shall promptly notify the Department of Game, Fish and Parks if species or critical habitat of species listed as threatened or endangered under state or federal statutes or rules are discovered within the permit area.
3. Any tree clearing shall be conducted outside of the migratory bird nesting season to avoid and minimize impacts to migratory bird nesting and roosting bats. The United States Fish and Wildlife Service identifies the 'maximum migratory bird nesting season' as extending from April 1 to July 15 annually, which is when most bird nesting occurs. Should tree clearance be required during the maximum bird nesting season, a bird survey must be conducted by a qualified wildlife biologist to identify any nesting birds in or adjacent to the proposed activity area. If nesting birds or roosting bats are discovered during the survey, Wharf Mine personnel shall contact GFP to determine an optimal buffer area to protect identified nests.

### Biological Assessment and Monitoring

1. Wharf shall continue biological monitoring, following Department of Game, Fish, and Parks wildlife monitoring guidelines for large scale gold mines. The annual wildlife monitoring area will include the permitted expansion area and adequate perimeter buffer. Wharf Resources shall work with the South Dakota Department of Game, Fish and Parks to modify the existing Annual Wildlife Monitoring Plan to include study areas examined during the baseline analysis.

Wharf shall continue to follow the requirements established in the Annual Aquatic Biomonitoring Plan. Wharf shall work with the department and the Department of Game, Fish and Parks to maintain and update the existing Annual Aquatic Biomonitoring Plan, as necessary.

2. If an aquatic resource is impacted by a discharge, release, or spill of toxic solutions, Wharf shall implement a response plan to assess biological damages. The decision to implement this plan will be mutually agreed upon by the department and the Department of Game, Fish, and Parks. This plan shall require Wharf to mobilize, as soon as reasonable, a qualified consultant to complete a quantified assessment of damages to the stream ecosystem. A preliminary report of these findings shall be provided to the state within 15 working days of completion of field data collection and a final report shall be provided to the state within 45 working days of receiving the preliminary report.

### Spill Contingency

1. All affected land under Permit Nos. 356, 434, 435, 450, 464, 476, and 490 shall be included under Wharf's Spill Contingency Plan. Within 90 days of permit approval, Wharf shall submit for

department approval an updated Spill Contingency Plan covering Permit Nos. 356, 434, 435, 450, 464, 476, and 490.

### Reclamation

1. Available topsoil or other material suitable for use as a plant-growing medium shall be stripped and stockpiled for use in reclamation. Topsoil stockpiles shall be clearly labeled and shall be stabilized to prevent wind and water erosion. Berms and/or other sediment and erosion control structures shall be installed on and around topsoil stockpiles to minimize erosional loss of soil resources. Topsoil shall not be used as backfill material.
2. Prior to final closure and bond release, Wharf shall maintain sufficient access to reclaimed areas to allow for any necessary reclamation maintenance. Roads not necessary for future use shall be reclaimed after the successful reclamation of pertinent affected areas.
3. Wharf shall transplant trees and shrubs from the Boston Expansion area to lands undergoing reclamation as shown in Exhibit 30.
4. Wharf shall dispose of mine rock and neutralized spent ore in mined-out areas, to the fullest extent practicable, to maximize the amount of material that is available for grading, backfilling, highwall stabilization, and topographic reconstruction of the open pits following mining.
5. If deemed necessary by the department, Wharf shall conduct a geotechnical stability analysis of exposed highwalls prior to final reclamation. If the highwalls are found to be unstable, additional backfilling or other mitigative techniques may be required to buttress or otherwise stabilize exposed walls.
6. In accord with SDCL 45-6B-42, Wharf shall take precautions to limit access to highwall areas by fencing, posting warning signs, and other suitable means. On completion of mining, highwall areas shall be adequately fenced or otherwise protected to prevent hazards to the public.
7. Pursuant to ARSD 74:29:07:17, all underground mine openings and workings discovered during the mining phase shall be closed or sealed as soon as possible after discovery to avoid additional bat mitigation requirements. If bats are found utilizing the underground workings, Wharf shall submit a mitigation plan to DANR and the Department of Game, Fish, and Parks for approval.
8. Prior to topsoil placement, Wharf shall analyze the topsoil to determine soil nutrient levels and appropriate fertilizer requirements.

### Reclamation Surety

1. Pursuant to SDCL 45-6B-21, Wharf shall submit a reclamation bond or surety to cover reclamation costs for Permit Nos. 356, 434, 435, 464, 476, and 490. The estimated cost of carrying out reclamation activities until the end of 2024 at the Wharf Mine, including the Boston Expansion area, is \$72,152,900. The bond will be re-evaluated and revised as necessary at the

end of 2024. As of April 17, 2023, Wharf's reclamation bond amount was \$58,246,100. Within 30 days after approval of Permit No. 490, Wharf shall post an additional \$13,906,800 reclamation bond in the form of surety, letter of credit, or cash deposit.

Pursuance to SDCL 45-6B-27, the department and the board reserve the right to adjust the reclamation bond or surety amount for the Boston Expansion Project for inflation, for unanticipated conditions, and for modifications to the permit by technical revision or amendment. The reclamation bond or surety may also be adjusted downwards as reclamation work is completed.

2. Before total reclamation bond and liability release, in addition to reclamation requirements, water quality at the site must meet water quality standards as determined by Wharf's Ground Water Discharge Plans, Surface Water Discharge Permit, and South Dakota surface and ground water standards, as appropriate. If water quality standards are not met at the time of closure, Wharf shall submit to the department either an environmental surety under SDCL 34A-10 or adjust the postclosure bond in an appropriate amount to provide for ground and surface water remediation. The environmental surety or postclosure bond shall be held until such time as the ground and surface water quality standards are met.

#### Postclosure

1. All affected land under Permit Nos. 356, 434, 435, 450, 464, 476, and 490 shall be included in the postclosure plan.
2. Before the start of the postclosure period, Wharf shall submit an updated postclosure plan, to include an updated hydrologic monitoring plan, to the department for approval. The postclosure plan shall be updated to reflect actual site conditions at the time of mine closure, and shall include, in addition to hydrologic monitoring, air quality monitoring, vegetation monitoring, spent ore treatment, sediment and erosion control systems, and miscellaneous maintenance and care.
3. The postclosure period shall begin at the time of reclamation surety release (mine closure) and shall last for a period not to extend beyond 30 years, unless the board determines that a longer period is necessary for compliance with all applicable performance standards or design and operating criteria.
4. Wharf's liability for the affected mine area shall continue until certification of the completion of the postclosure care plan is approved by the board.
5. Wharf grants to the board or its representative's permission to enter the reclaimed area to monitor reclamation success and to take air, water, and biological samples during the postclosure period. The department shall give Wharf the opportunity to accompany any inspector from the department or other agent of the board during the postclosure period.

## Postclosure Financial Assurance

1. In accordance with SDCL 45-6B-91, Wharf shall submit a postclosure financial assurance to cover postclosure care and maintenance costs for Permit Nos. 356, 434, 435, 464, 476, and 490. The postclosure financial assurance will be used to correct postclosure problems in the case that Wharf fails to carry out required postclosure activities. The estimated cost of carrying out postclosure care activities at Wharf's mine site is \$42,685,600. As of April 17, 2023, Wharf's postclosure financial assurance amount was \$38,396,200. Within 30 days after approval of Permit No. 490, Wharf shall post an additional \$4,289,400 postclosure financial assurance in the form of surety, letter of credit, or cash deposit. Issuance of the permit shall be contingent on the department's receipt of the postclosure financial assurance. Postclosure financial assurance of the mining operations shall be submitted before beginning the construction or land disturbance associated with the Boston Expansion.

Postclosure financial assurance shall be calculated for the entire mine operation and the final amount submitted to the department before beginning construction or land disturbance associated with the Expansion. The final amount will be based on cost estimates developed by Wharf. The cost estimates shall be submitted to the department for review and approval prior to submission of the postclosure financial assurance. The department will review and recalculate the required postclosure financial assurance amount and adjust the amount of postclosure financial assurance, as necessary, to reflect anticipated site conditions at the time of mine closure.

2. The postclosure financial assurance shall be held for a period of 50 years after reclamation surety release to ensure that all established reclamation and performance standards are met and that the affected land is stable, is free of hazards, has self-regenerating vegetation, has minimal hydrological impacts, has minimal releases of substances that adversely impact natural resources, and is maintenance-free to the extent practicable. The board may extend the period of the postclosure bond beyond 50 years if necessary. If the board finds that an extension of the postclosure period is necessary, the postclosure financial assurance, or portion necessary to ensure continued compliance, shall be held for the extended period. If the board reduces the length of the postclosure care period, the postclosure financial assurance shall be held until the end of the reduced period. Until the board finds that the site meets all applicable performance standards, the postclosure financial assurance shall include funds to carry out normal monitoring and maintenance work, and funds for contingencies such as long-term nitrate treatment. Funds left at the end of the postclosure period will be released to Wharf.

When Wharf believes it is in full and continuing compliance with applicable performance standards, it may petition the board for release or reduction of the postclosure financial assurance by submitting certification that postclosure care is complete.

3. The type of postclosure financial assurance may be amended upon mutual consent of the department, the board, and Wharf.
4. The department and the board reserve the right to increase or reduce the amount of postclosure financial assurance based on site performance factors including site stability, presence of hazards, revegetation success, hydrologic impacts, the need for long-term surface or ground water treatment, and releases of substances that adversely impact natural resources.

## Performance Monitoring

1. Within 90 days of permit approval, Wharf shall submit an update to the Performance Monitoring Plan, which shall include pertinent information on the Boston Expansion area. This plan is to be used as a basis for assessing performance of all components of the reclaimed facility, including the rock facilities, spent ore facilities, processing facilities, crusher areas, pit areas, and ancillary facilities. The plan shall identify proposed performance criteria for vegetation, ground water, surface water, and other applicable components of reclamation, such as air quality, slope stability, disposal of refuse, weed control, and highwall fencing. The plan shall address the methods for determining conformance with the criteria. Performance criteria for vegetation shall be developed in consultation with the local district conservationist and must include measurements for forage production, species composition, coverage, and density.

Based upon site conditions at the time of mine closure, the department, in consultation with Wharf, will reassess the plan to develop a final performance monitoring plan that will set site-specific performance criteria and performance monitoring stations for each component of the reclaimed facility. The final performance criteria shall become enforceable requirements and will be used to determine reclamation surety and liability release.

The performance monitoring plan and performance criteria may be modified by mutual agreement of the department and Wharf.

This recommendation is being mailed to you pursuant to ARSD 74:29:01:15. Petitions to intervene and become party to the proceedings pursuant to ARSD 74:29:01:18 must be filed with the Department of Agriculture and Natural Resources and CT Corporation System at the address above no later than April 26, 2023. A hearing on the mine permit application will be held before the Board of Minerals and Environment on May 18, 2023, in Pierre, South Dakota.

Persons desiring further information concerning the permit application may contact Roberta Hudson of the Minerals, Mining, and Superfund Program, 523 East Capitol Avenue, Pierre, South Dakota 57501-3182 – (605) 773-4201. A copy of the permit application can be found at <https://danr.sd.gov/Environment/MineralsMining/Exploration/NewMinePermits.aspx>.

Hunter Roberts  
Secretary  
Department of Agriculture and Natural Resources

April 17, 2023