

Case Study

Dust Management through Closure Landform Construction

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Public Services and Procurement Canada (PSPC)
Yukon Territory, Canada

> Background

At the Faro Mine Remediation Project (FMRP) in the Yukon Territory, dust generation from a legacy tailings storage facility (TSF) was identified as a concern. Trace amounts of minerals in dust particles pose a potential risk of being transported to local facilities, nearby communities, vegetation, and freshwater sources. Okane was engaged to design and provide quality assurance (QA) for the construction of a dust cover at the TSF. We led the identification and design of two borrow areas used to source the materials needed for the cover construction. The objective of the dust cover was to create a physical barrier over the tailings material to reduce dust generation during windy summer conditions.

> Approach

The FMRP is one of the most complex and interdisciplinary abandoned mine remediation projects in Canada. Working with AECOM as part of the Remediation Plan Design and Support Services team, Okane has developed a cover and landform closure design for the TSF. The dust cover was designed to promote efficient use of mine rock that was planned to be moved to act as a traffic layer in the final closure design. To support the placement of the dust cover, Okane maintained a full-time field presence to offer construction support and act as QA lead on site daily to conduct field tests, and verify compliance with design specifications.

> Client Benefit

As a result of our active field involvement and strong coordination with the client, construction manager, and contractors, the tailings dust cover was constructed in accordance with design specifications and with no safety incidents, delivering a high-quality outcome efficiently. By placing the dust cover with the final closure design in mind, the site was able to address dust exposure risks and avoid the future need to rehandle material.



Dust management and collaborative construction execution as a partner in complex abandoned mine remediation projects.

Integrated Mine Closure and Relinquishment Solutions

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