

What is tailings?

- Tailings is a combination of the solid material remaining after the recoverable metals and minerals have been extracted from mined ore, and any remaining process water.
- Tailings is an unavoidable consequence of mining and a mineral processing waste management issue.
- Mine tailings from flotation processing of copper gold ore is typically not toxic – studies will be undertaken to confirm this.
- Tailings can be stored in on-land tailings storage facilities, however in PNG, other options including deep sea tailings placement are also feasible.



Hidden Valley on-land tailings storage facility

On land tailings storage

- A dam is constructed to form an impoundment.
- Tailings is piped to the tailings storage dam.
- Tailings solids settle out and the liquid fraction is discharged or recycled.
- Eventually, many years after the project is complete, the surface will dry sufficiently to enable rehabilitation.
- Alternatively, tailings can be stored permanently under water in the tailings storage dam.

Tailings management

- Any tailings management system has an environmental impact.
- Safe management of tailings to avoid human or environmental impacts is most important.
- WGJV is continuing with extensive studies to thoroughly review all tailings management options for the Wafi-Golpu Project.
- The aim is to minimise environmental and social impacts, and improve project economics.



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Challenges for safe engineering of on-land tailings storage

- Tailings have to be stored safely indefinitely.
- Finding land that is not otherwise important for houses, gardening, forests, etc.
- Stable land with low risks of earthquakes.
- Managing the water balance and ensuring water discharges meet PNG water quality standards.
- Many on land locations in PNG are challenging for engineering tailings storage dams.



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