

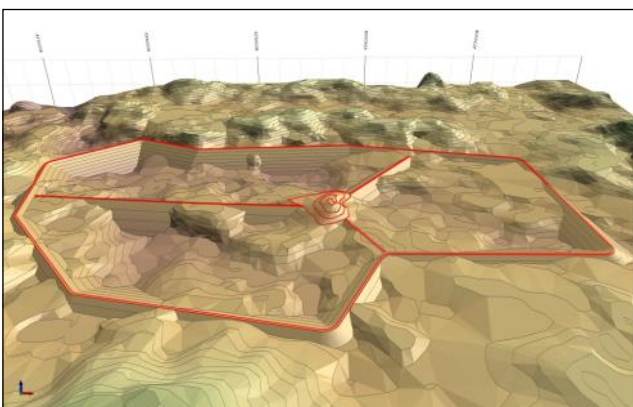
Onshore Tailings Storage Facility

Conceptual design

MINCORE

Misima Gold Mine, PNG

2020



Project description

The project involves conceptual design for an onshore Tailings Storage Facility (TSF) located in the Misima Gold mine in PNG and owned by Kingston Resources Limited.

The study was requested by PNG's regulators within the approvals process of an alternative tailings disposal option into a Deep Sea Tailings Pipeline (DSTP).

Key data

- Tailings type : NAF
- Solid concentration : 55%
- TSF type : Cross valley slurry impoundment
- Operational life : 20 years app.
- Footprint : 346 hectares
- Tailings volume at -3m crest : 89 Mm³
- Fill earthworks : 19.8 Mm³
- Storage ratio : 4.5
- Embankment type : Rockfill with upstream liner

Scope of work

- TSF Consequence classification assessment
- TSF conceptual design (location, storage capacity)
- Design description :
 - Embankments
 - TSF lining
 - Tailings delivery system
 - Decant pond
 - Emergency spillway
 - Water return system
 - Surface Water Management
- TSF construction phasing
- Embankment stability assessment
- High-level water balance assessment for the last year TSF operation

