

Frieda River, Papua New Guinea

DP investigated over 70 individual sites, over 600kms of road and logged approx. 10,000m of drill core over 3 years within an area of approx. 8,000km²

The Frieda River Project is one of Asia-pacific's largest undeveloped copper and gold deposits containing over 12 million tonnes of contained copper and 18 million ounces of gold.

Douglas Partners (DP) were involved with the Extended Scoping Study (2009), Pre-feasibility Study (2010) and bankable Feasibility Study (2011) for the Frieda River Gold-Copper Mine Project, Frieda River, Papua New Guinea. The scoping study entailed inter-alia, preliminary investigations and ranking of 10 potential hydro-electric schemes, 5 tailing dams, 8 process plant sites and over 120km of access roads. The feasibility study involved detailed geological mapping, logging drill core and teaching logging skills to local geologists, in-situ field testing, factual and interpretive reporting on the more feasible sites.

The area is one of the most isolated and technically challenging mine sites in the world. It is covered by a dense jungle canopy which drapes steep mountains incised by rivers and is bounded by the Sepik River Flood Plains covered by peat swamp.

There are no roads and only one small airstrip on the Frieda River specially built to service the project. The site's complex geology and geomorphology continues to be shaped by earthquakes and surface processes. Consequently the project faces many potential geohazards including active faulting, soft ground, flooding, liquefiable soils, river avulsion, pyritic rock, active landsliding and earthquakes.

Key to the project was overcoming many logistical challenges from mobilising people to and from site (over 40 DP staff from all over the company were involved over the three years), to communicating and coordinating with site teams and consultants spread across PNG, Australia, USA, Switzerland, UK and Chile.



"Considering the enormous area and extreme geologic and geotechnical issues over the site area this was a tremendous effort and DP should be commended for their work on this project."

Mr. Ken Bell, Bechtel Corporate Manager for Geotechnical Hydraulics and Environmental Services

CLIENT Xstrata Frieda River Ltd)

YEAR 2011

SCOPE OF WORK

- Supervision of site investigation
- Geological mapping
- Laboratory testing
- Factual & interpretive reporting



TO FIND OUT MORE ABOUT DOUGLAS PARTNERS' PROJECTS CONTACT US on
 (02) 9809 0666, EMAIL US: marketing@douglaspartners.com.au OR CHECK OUT THE
 WEBSITE www.douglaspartners.com.au

GEOTECHNICS

ROCK MECHANICS

EARTHWORKS