

**Location:**

Kelian, East Kalimantan

**Value:**

US\$13 Million

**Client:**

PT. Kelian Equatorial Mining

**Contract Type:**

Supervised Plant Hire

**Duration:**

October 1990 to September 1991

**Description of Works:**

The construction of the Namuk Tailings Dam was one of the several key contracts Thiess Indonesia were awarded as part of the infrastructure works required for the Kelian Gold Project. The remoteness of the site and its' harsh tropical conditions called upon the extensive logistics network and site support services Thiess Indonesia has firmly established in Indonesia.

The 450m long and 40m high earth dam comprises 800,000m<sup>3</sup> of rock and clay fill, and will eventually store and retain 55 million tonnes of tailings from the Kelian Gold Processing Plant.

**Scope of Work :***Professional Services*

- Geocomp" Survey Services
- Investigative drilling
- Quarry design
- Project Planning

Following delays due to the removal of unstable material and trying weather conditions, the Nakan River, which ran across the dam footprint, was diverted by a primary coffer dam through a steel pipe conduit. A secondary coffer dam was then built to further protect the main dam workface. This second coffer dam was incorporated into the main embankment.

Thiess Indonesia started on the main embankment in April 1991, working a 22 hour day, generally seven days week, in order to meet the September completion date. Up to 70 units of major plant were engaged on the site with a workforce of over 300 personnel. Rock was generally won by ripping, using a Cat D10N and two Cat D9N dozers, and hauling it 5km using 20t and 25t highway trucks. Minor blasting was also required from time to time.

The clay for the dam's impermeable clay core was hauled 3km using Moxy 35t articulated dump trucks. In placing the clay core, Thiess Indonesia had to work with other contractors installing a grout curtain, as well as the installation of embankment instrumentation.