



**Mineral
Technologies**

A Downer Company

African Minerals – Tonkolili Project

Iron Ore Processing

In 2013 Mineral Technologies delivered an Iron Ore beneficiation circuit for African Minerals - Tonkolili project in Sierra Leone.

The scope of supply included all items required to implement a long-term (12-month) pilot testing regime including tele-handler, crushing, screening, conveyors, commissioning and operating spares.

- Circuit included a wide range of pilot-scale separation techniques from crushing, screening, comminution and gravity separation, as well as low and high intensity magnetic separation.
- Project completed within an accelerated and compressed delivery timeframe.

African Minerals – Tonkolili Project



Client African Minerals

Location Sierra Leone

Capability Groups Mineral Processing

Commencement 2013

Completion 2013

Services Provided

- Plant design
- Equipment supply
- Fabrication and fit-out
- Delivery to site
- Construction and commissioning assistance

Highlights

- Preassembled and dry commissioned in Mineral Technologies' factory
- Flexible circuit for investigation of a range of flowsheet configurations
- Circuit included a wide range of pilot-scale separation techniques from crushing, screening, comminution and gravity separation, as well as low and high intensity magnetic separation
- Modular crushing, fine grinding, sizing and screening circuits
- Project completed within an accelerated and compressed delivery timeframe

Preassembled Modular Solution

Mineral Technologies was commissioned to develop a flowsheet for an Iron Ore beneficiation circuit for the expansion of African Minerals' Tonkolili operations in Sierra Leone. The scope required that the circuit be flexible in terms of the configuration of crushing and grinding sizes. The scope of supply included all items required to implement a long-term (12-month) pilot testing regime including tele-handler, crushing, screening, conveyors, commissioning and operating spares.

Given the logistical challenges of completing a project in central Sierra Leone, Mineral Technologies developed a plant design and layout enabling full plant assembly and dry commissioning at its Gold Coast headquarters prior to shipment. In addition, it was identified prior to design commencement that the compressed timeframe of the project would prevent Mineral Technologies from sourcing certified vendor and structural drawings prior to commissioning the installation of concrete. To address this challenge adaptive interface systems were developed to allow concreting to be completed whilst final plant detailed design was carried out.

With the arrival of the plant on site, Mineral Technologies despatched construction and commissioning support to enable rapid re-erection on site, while also providing training and pilot testing assistance to enable the Sierra Leone workforce to transition from an assembly team through to an operations crew.