

Tenke Fungurume – Greenfields Copper Cobalt in DR Congo

A greenfield copper / cobalt processing facility engineered out of Perth Western Australia by GRD Minproc, and to be constructed in the Katanga province of the Democratic Republic of Congo, for owner Phelps Dodge (now Freeport McMoran Inc). MO Consultants provided several key position personnel during the project design, construction, commissioning and ramp-up. The plant itself takes high grade ROM ore to metal(s) using traditional comminution, acid leaching, Solvent extraction, electrowinning and refining for both copper and cobalt.

Scope 1 C&I Design - Initial responsibilities was for taking the project from Definitive Feasibility Study stage to completion of detailed design, including hiring and managing a team of six engineers and four designers to deliver the overall design and procurement for instrumentation, valves, plant control system, security systems, fire & ESD systems, data, voice, CCTV and communication systems. Also project integrity activities, interfaces with internal disciplines, client and vendors, production of specifications and design documentation, inter discipline reviews, selection of equipment and packaged plant, etc.



Scope 2 Construction completions and Commissioning - Initial role involved working with the construction manager to realise mechanical completion on a very compressed schedule for a large and complex project located in a remote rugged and tropical region of Sub-Saharan Africa. This included establishing site procedures, sourcing documentation, aligning construction schedule to optimal plant start-up so as to minimise delay between staged construction completion and metal production, manage all package plant and equipment vendors. Concurrently define, establish and mobilise a commissioning team to carry out all internal construction handover audits, pre and wet commissioning after mechanical completion

activities, review and compile vendor data and client handover documentation, establish and manage HSE and project QA procedures, enact suitable performance tracking tools, etc. The above was to achieve both a timely and staged plant handover to client. Finally to provide an integrated contractor / client / mod squad team to work through wet commissioning, first feed and attainment of plant nameplate design performance targets.

MO Consultants delivered the following services to the above project:

- **Principal Control & Instrumentation Engineer**
- **Commissioning Manager**
- **Control and Instrument Engineer**