

engineering the impossible

# MET63 RECOVERS BASE METALS IN RECORD TIME

MET63 exceeds client expectations in the recovery of base metals from a stormwater dam in a 100 m<sup>3</sup>/h treatment plant.



#### **THE CHALLENGE**

A global water shortage is imminent, and many countries are already experiencing droughts. It is therefore essential that mining operations start treating their own wastewater and runoff, to prevent pollution of valuable water sources. This creates a unique opportunity to derive more value from "waste" and previously "uneconomical" sources.

### **OUR APPROACH**

MET63 was tasked to design, construct and operate a soluble base metal recovery facility for a tier one PGM and base metal producer in South Africa. It was required to treat a minimum volume of ~150 000 m<sup>3</sup> before the rainfall season as a matter of urgency. A process plant was designed to produce two product streams: base metal residue and clean metal-free solution, both to be incorporated and re-used at one of the existing purification plants owned by the client. MET63 was contracted to undertake testwork, detailed design, and to commission and operate the plant in the North-West province of South Africa.

### RESULTS

All product purity's set by the client were met and completion of the commissioning phase and processing was well ahead of schedule. Five days after operation commenced, a clean and on specification product solution was obtained. The clean metal-free solution contained less then 3.5 ppm of total dissolved metal on average.

## **PROJECT HIGHLIGHTS**

- An interim processing facility was built and maintained while the permanent solution was being commissioned.
- > MET63 managed to exceed the high product purity specifications set by the client.
- $\succ$  The process plant was fully commissioned within 6 weeks.