



CAROSUE DAM PASTE BACKFILL PLANT

SCOPE OF WORK

GR Engineering was appointed by Saracen Gold Mines Pty Ltd to construct a paste backfill plant capable of producing 110 to 120 m³/h of paste for filling stopes in the Karari underground mine. The design required that the facilities allow for expansion to incorporate the additional stope filling requirements for the Whirling Dervish deposit at a later stage.

The scope of work comprised the design, supply, fabrication, installation, commissioning and handover of all works necessary to provide a paste plant including works at the existing Carosue Dam processing facility along with works at a new paste plant location.

Works included but not be limited to:

- Bulk earthworks including clearing and grubbing of the paste plant site and the construction of suitably formed and constructed access roads;
- The construction of saline process solution pipeline corridors including pipeline bunding and cleanout/drainage ponds sized commensurate with transfer pipeline volume;
- Concrete works including the establishment of concrete

batching facilities and the supply of materials as required;

- Structural steel and platework supply, surface treatment and erection;
- Piping supply, surface treatment and installation;
- Electrical and control system supply and installation;
- Commissioning and vendor attendance during commissioning;
- Performance testing of the Paste Plant facility.

Process and Plant Description

The facility comprised the following circuits:

- Tailings thickening;
- Tailings desliming;
- Tailings filtration;
- Paste mixing and delivery;
- Binder storage and dosing;
- Water and air services;
- Paste plant discharge to the existing tailings storage facility.

Commodity: Paste Backfill

Region: Australia

Location: 120km northeast of Kalgoorlie

Project type: EPC design and construct

Client: Saracen Gold Mines Pty Ltd

Award date: July 2018

Completion date: April 2019

Project manager: Peter Parsons

Process manager: Bill Gosling