



MC254 Drainage Improvements Project

PROJECT DETAILS

Centrals were engaged by BHP, to design, supply, construct and commission a water drainage improvement system to the tail end of Conveyor MC245, which included a new Drive-in Siltation Sump, Sump Pit and Slurry Pump.

The installation of a new siltation sump pit and pump and surrounding concrete slabs was intended to capture the wash down water and slurry and pump it to a local evaporation pond located southeast of MC254.

The detailed design included areas of design for; Civil, Mechanical, Structural, Electrical and instrumentation.

Civil Earthworks and Concrete Works:

- Excavations and foundation preparation for concrete slabs and plinths
- Excavations and installation of bollards to protect from vehicle interaction
- Construction of concrete slabs and plinths
- Construction of concrete kerbing and/or installation of drains to existing slabs under screening plant
- Backfill and minor earthworks / levelling to tie into existing ground levels
- Excavations and backfill of water / slurry pipeline (discharge pipeline from the new siltation sump to the nearby excess water catchment pond)

Structural, Mechanical and Piping Works:

- Installation of siltation sump pump, hand railing and associated above ground pipework, valves and instrumentation
- Installation of below ground water / slurry discharge pipeline

Electrical and Instrumentation Works:

- Supply and installation of new MCC Starter Module
- Installation of cable conduits and cable trays
- Installation of power and control cabling to Substation
- Earthing for the installation as required by detailed design

Testing and Commissioning:

- Earthworks compaction testing during construction
- Concrete field testing during concrete placement and compressive strength testing during construction
- In service testing of pipework
- Commission and test all cabling and terminations (Stage 1-3)
- Mechanical Commissioning new siltation sump pump and motor
- E&I Commissioning and testing including PLC / Citect Programming

Client: BHP Billiton Iron Ore
Location: Mining Area C, Newman WA
Duration: 6 months
Completion: September 2018
Value: \$1M



PROJECT HIGHLIGHTS
Personnel on Site: 10-15
Manhours: 3,670