



New Explosive Magazine Facility

PROJECT DETAILS

Centrals were engaged by BHP to design, supply, construct, and commission of a New Explosive Magazine Facility.

Critical planning was required for the temporary storage utilising Relocatable Explosive Magazine storage units (REMs) of stock explosive boosters and detonators whilst relocating the existing permanent explosive magazine storage units from the existing 'A' Deposit Explosive Magazine Facility to the newly constructed Explosive Magazine Facility location, to ensure Mining production could continue without disruption. Once the New Explosive Magazine Facility was operational, the existing 'A' Deposit Explosive Magazine Facility was demolished to enable safe mining of the extension of the 'A' Deposit pit.

Detail Design:

- Architectural, earthwork, civil, concrete and electrical design of the new explosive magazine area layout in accordance with AS2187.1

Civil, Earthworks and Concrete:

- Clearing, grubbing, stripping and stockpiling
- Detailed earthworks for surface drainage
- Installation of 2.45m high perimeter security fencing
- Trenching and backfill with select fill of earthing grid and cables
- Placing of blinding concrete
- Construction of in-situ concrete footings and apron slabs

Structural Works:

- Temporary hire and installation of 4x REMs
- Decommissioning of existing Magazine Storage Units
- Unload, lift and install relocated magazine storage units to new magazine facility

Electrical Works:

- Installation of earthing grid to perimeter of facility
- Installation of 4 off lightning protection poles

Testing and Commissioning:

- Earthworks compaction testing during construction
- Concrete field testing during concrete placement
- Electrical resistivity testing for earthing and lightning protection

Demolition Works (of Existing Redundant Explosive Magazine Facility):

- Removal and disposal of existing security fencing including concrete footings
- Removal and disposal of existing lightning protection poles
- Removal and disposal of magazine storage unit concrete footings and slabs
- Backfill and level existing ground levels

Client: BHP Billiton Iron Ore
Location: Mining Area C, Newman WA
Duration: 5 months
Completion: September 2018
Value: \$1.5M



PROJECT HIGHLIGHTS
Personnel on Site: 8-12
Manhours: 6,565