#### **AMCO-GIFFEN**



# Boulby Mine Man Shaft Repair

Location: Yorkshire

Timeframes: 2013 - Sept 2015

Client: ICL UK Ltd.

Discipline/Sector: Mining,

maintenance, infrastructure

## Project Overview

Boulby's number 2 man shaft is 1100m deep, 18ft in diameter and is primarily used for winding men and materials. As part of an ongoing scheme to ensure the continued operational functionality and safety of Boulby Mine, AmcoGiffen were contracted to undertake repairs to the shaft lining and vent inset.

Repairs were required due to the presence of marl strata - a plastic material - approximately 20m above the bottom of the shaft immediately behind the shaft lining. Marl deforms the lining over time to such an extent that repairs are required.

#### Scope of Works

Undertaking a survey review of the site to prepare a draft design proposal, we identified options for undertaking the repairs.

AmcoGiffen's final scope of works included:

- Detailed Design
- Shaft preparation including washing, descaling and removing salt deposits, and securing the furnishings
- Protection, access and lighting
- Installation of winch, monorail and grouting systems
- Establishment of access onto mezzanine deck and into the shaft from the pit bottom inset
- Establishment of in-shaft hoist system
- Installation of intermediate cantilever support brackets and new spider beam
- General arrangement of new deck supports
- Removal and disposal of damaged blocks and installation of new blocks
- Backwall support
- Removal of old and installation of new support frames and deck



### Innovation Applied

With all repairs undertaken across 2 Monday to Friday shifts, our team ensured the shaft remained operational throughout.

Carrying out the works in conjunction with ongoing mining activity, this enabled both cost and time savings for the client.

### Benefits Provided

Ensuring the continued safety and operation of the UK's largest potash mine, AmcoGiffen completed all works efficiently, to budget and safely.

Utilising the data we've acquired from our previous repairs, our experience enabled the job to run smoothly and successfully.

Further benefits included:

- Round the clock support
- Reduced need for maintenance works
- A detailed understanding of the technical scope
- Deck 2 has an enhanced capability of supporting loads on its own



For further info please contact info@amcogiffen.co.uk