

Case Study

AMC Bore Hole Stabiliser™ (BHS) increased metres drilled per day by 40%

Objectives

- Increasing hole stability to improve metres drilled per day
- Find new solutions to replace traditional PVC casing installation

Challenges

- Clusters of Volcanogenic Massive Sulphide (VMS) deposits often resulted in poor hole stability and HSE implications
- Traditional methods of installing PVC casing for explosives loading resulted in lost time for the entire process
- Further complexities of mobilising PVC underground, the HSE risks and blasting inefficiencies made improvements imperative

Project Details

Location: Eastern Goldfields of Western Australia

Resource: Au

Application: Underground metallurgic exploration

BHS successfully eliminated the need for using traditional methods of installing PVC casing

IMDEX Solution

AMC BORE HOLE STABILISER™ (BHS)

After initial conversations and analysis, IMDEX suggested trialling the BHS-integrated drilling technology solution to improve productivity and remove the risks and costs associated with installing PVC uphole.

BHS is a multifunctional product formulated to combat a wide range of down hole problems including poor collaring, hole decay and sidewall instability.

The formulation penetrates deep into the surrounding strata, providing lubrication to the hole, increasing lifting capacity for cuttings transportation and encapsulating water sensitive clays or shales.

Strategy & Solution

- The BHS drilling technology solution is a proactive additive and delivery system that addresses a wide range of drilling problems including sidewall instability and hole decay, providing a more consistent gauge.
- The fluid technology was delivered through an on rig-dosing unit that was integrated onto the rig and into existing workflow.
- BHS has progressed from trial stage to implementation at the site on all production rigs.



Water destroys the formation, washing it away during the traditional method of water at full pressure.

Customer Statement

BHS successfully eliminated the need for using traditional methods of installing PVC casing. The Rate of Penetration was bolstered by a further reduction in water and drilling fluids consumption by controlling the loss of circulation.



BORE HOLE STABILISER™ consolidates the formation and ensures casing is not required

Results



Significant improvement in drilling productivity up to **40% in meters drilled/day**



Improved both underbreak and overbreak of Stope firing



Improved the drill schedule planning by **reducing re-entries effectively**



Reduced HSE risks - manual handling and labor to install casing



Eliminated the use of PVC - **saving \$20k-\$50k per month** or +90% reduction in PVC



Cleaner holes have improved the loading time and quantity for explosives crews and **blasting efficiency** of the operation



Reduced drilling consumables cost by 50% when compared to using slotted PVC