Client: Round Oak Jaguar

Location: Western Australia

Mine: Bentley Mine

Contractor: Minova

Duration: June - August 2018

Products Offered: FB200 Tekseal

Industry Sector: Underground Metalliferous Mine



STERILISED ORE RECOVERY

We have helped customers recover sterilised ore reserves for more than 17 years, delivering substantial financial benefits safely and efficiently.

Round Oak Jaguar approached Minova to assist with a solution that could maximise the recovery of stopes at their Bentley Underground Mine. The Bentley mine utilise a Modified Avoca Stoping method, which requires all development to occur before mining of stopes. The stopes are then mined upwards from the bottom, center outwards in sequence, with the stope voids back-filled with R.O.M waste rockfill.

Through necessity for production sequencing, the 3900 AON high grade stopes were extracted out of sequence and rockfilled. This resulted in high-grade sill and rib pillars being left behind to maintain stability of the panel.

Scope

To completely extract the stopes a 150m long section of consolidated rockfill was required to provide a stable exposure to mine underneath and ensure minimal dilution of the ore body during extraction.



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Our Solution

We supplied technical advice, product, specialised equipment and operations capability to support Round Oak Jaguar during the consolidation program.

FB200 grout was selected for its unique rapid gel times, quick strength, low viscosity and high water content, allowing for controlled placement through carefully designed borehole patterns and maximum penetration of the rockfill.

Tekseal, another high yield grout, was used to create grout curtains to control the placement of the FB200 within the rockfill.

The Result

Our 17 years of product ingenuity and experience in recovering sterilized ore in conjunction with CAF fill technology, Round Oak Jaguar were able to redesign their stopes to extract the rib pillars and mine the entire sill pillar.

We provided 360 tonnes of FB200 to Round Oak Jaguar and consolidated the 3920 drive in 3 weeks, working round the clock. To date, all the primary stopes have been extracted with minimal dilution observed, with extraction of the secondary stopes still to occur. We are currently undertaking further work at Jaguar to unlock and extract value within the mine.

Achievements:

- 100% Recovery
- 0% Dilution

Quality Control:

Grout samples
were taken during
application to ensure
the correct ratio of
product would achieve
the correct strength.
Samples were tested
by Minova and a
third party to ensure
compliance.



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