

Challenge

Background

The drilling rig for the blasting holes is operated by large chains. Dust, poor lubrication, and hydraulic oil contamination caused severe rusting of the chains. They became stiff and would not function properly.

Every 3 months the chains break due to wear and stiffness, and portions are replaced. The entire chain is replaced yearly.

Chain cost per drifter: \$18,000/year



Drifters drill holes to set explosive charges for excavation of copper ore.

Solution

Product

- The chains were so stiff due to corrosion that **Chesterton 706 Rustsolvo®** was applied first to free the rusted interior of the chains.
- **Chesterton 274 Industrial Degreaser** was then used to quickly remove the loosened rust deposits and residual heavy grease that was previously used.
- **Chesterton 601 Chain Drive, Pin, and Bushing Lubricant** was used to lubricate inside the chain on the pin and bushing.



Integrated solution to clean, penetrate and lubricate the chains.

Results

- The chains now run smoothly with no build up of dust.
- Chain pin and bushing wear is reduced.
- No chain breaks have occurred in over 8 months due to the superior performance of **Chesterton 601**.

Yearly Chain Savings with **Chesterton 601**:

Chain life increase:	250%
Chain cost per drifter:	\$ 7,200/year
Savings per drifter:	\$10,800/year

\$=USD



Chain life extension increases productivity and reduces operational cost.