



# Mobil SHC™

## Mobil SHC 626 Helps Australian Copper Mine Prevent Equipment Breakdown on Dump Truck Gearboxes, Extend Maintenance Intervals and Reduce Total Cost of Ownership

**Hitachi AH400D Articulated Dump Trucks  
Copper Mine  
Leonora, Western Australia**

### Situation

A copper mine in Western Australia operates a fleet of six Hitachi AH400D haul trucks. The trucks work rigorously, tasked with hauling ore from the mine to the mill. Like many off-road vehicles, these machines utilize a transfer case gearbox—a critical component of the drive system that shifts power from the transmission to the rear and middle differentials. When serviced by a competitive lubricant, drop-box bearings and gearboxes were breaking down every 2,500 hours on average, requiring frequent component rebuilds. With repair and replacement costs ranging from USD \$35,000 to USD \$50,000, maintenance personnel approached ExxonMobil to determine an alternative lubricant solution capable of preventing equipment failure and reducing total cost of ownership.

### Recommendation

After evaluating the application and operating environment, ExxonMobil engineers recommended transitioning to **Mobil SHC™ 626** synthetic gear oil. Formulated from inherently high viscosity base fluids and a proprietary additive system, **Mobil SHC 626** is scientifically engineered to maintain viscosity and film thickness in extreme temperature conditions. ExxonMobil engineers also recommended implementing routine **Signum<sup>SM</sup> Oil Analysis** to monitor the condition of the components and in-service lubricant.

### Result

**Mobil SHC 626** gear oil has helped significantly improve fleet reliability. Maintenance records showed the initial trial truck has already successfully tripled its previous maintenance interval, passing 7,780 hours of operation. Impressed by the trial results, maintenance personnel made the decision to transition the entire fleet to **Mobil SHC 626** from the initial fill. The company estimates that the resulting performance benefits have translated into an annual savings of USD \$250,000.

The product performance of **Mobil SHC 626**, alongside the application expertise provided by local ExxonMobil engineering support and **Signum Oil Analysis**, is helping to improve customer productivity potential.

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*This Proof of Performance is based on the experience of a single customer. Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.*



*Mobil SHC 626 gear oil helped this copper mine prevent component failure on these dump trucks and enhance equipment reliability.*

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