

Case Study: Gear Oil Filtration June 2009



Photo A



PHOTO B



PHOTO C

North Parkes Rio Tinto Copper Mine, Australia

APPLICATION: Conveyor Drive Gearbox
Flender (B3 SH 15)

PROBLEM: High level of ferrous metal contamination in the gear oil of the main underground haul out conveyor drive gearbox (capacity of 210 L)

SOLUTION: CBC, the Australian distributor for OEI, suggested installing a 4000 series Magnetic Scrubber (4SC49SCL) on the coolant circulation loop with a flow rate of 5 L/min. with a bypass for servicing during operation.

RESULTS: After one week in service the magnetic filter was removed from the scrubber housing and a substantial amount of ferrous contamination (photo C) was trapped on the magnetic filter and the oil was visually cleaner.

The reduction of ferrous metal contamination will result in a significant decrease in wear on the gear box components and drop the operating temperature by reduced friction which will directly improve up-time. Photo B - plumbing configuration to allow bypass for cleaning of the magnetic filter on the suction line of the oil cooler for the gearbox.

The contamination is easily removed and analyzed for component wear identification allowing predictive maintenance planning. For further information contact our office or visit www.OneEyeIndustries.com.