



**HOT, COLD, WET OR DRY, GRAPHALLOY®
BEARINGS WORK WHEN OTHERS FAIL.**

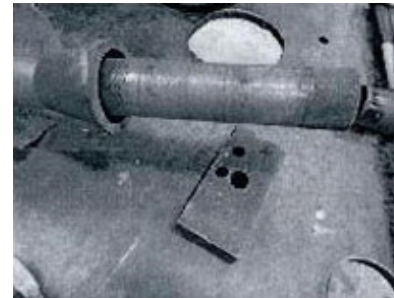


GRAPHALLOY Upgrade Eliminates Failures in Waste Water Sump Pumps

A major refinery was experiencing frequent bearing failures in their vertical oily wastewater sump pumps. The bronze packing box and line shaft bearings were wearing out within two months of service, damaging the shaft and causing leakage through the packing at the stuffing box. Upgrading to GRAPHALLOY bushings solved the problem.

The bearing failure was also causing an environmental issue when the hydrocarbon/water slime leaked into the ground.

The refinery engineers discussed solutions with an engineer from Graphite Metallizing, the manufacturer of GRAPHALLOY self-lubricating bushings. The Graphite Metallizing engineer suggested that they replace the bronze bearings with GRAPHALLOY bronze-grade bushings, which included a spiral groove to channel away any possible abrasives in the pumpage.



Because the GRAPHALLOY is non-galling (unlike the bronze), the bushings were designed with a tighter fit to reduce vibration. GRAPHALLOY also provides lubrication during start-up to any bushing that isn't submerged, especially the stuffing box bushing.



It is over one year since GRAPHALLOY was installed in three of these pumps and one of the refinery's Rotating Equipment Engineers said that the pumps are "working great."

The plant engineer explained that GRAPHALLOY was chosen because of successes with other pumps at this site and also for providing fast turnaround on both the quotation and replacement parts.

