



<b>Industry</b>	Mining	<b>Customer</b>	Silverlake Resources
<b>Sector</b>	Gold mining	<b>Site</b>	Randalls Gold Project
<b>Responsible</b>		<b>Application</b>	Two Ball Mills
<b>Date</b>	Installed April 2016	<b>Distributor</b>	Systematic Lubrication Solutions

Number: 1

**Before MEMOLUB:**

- The Pinion and trunnion bearings on both mills were lubricated by one single centralised system

**Lubricant used:**

- Fuchs Stabyl 300 AL2

**Machine (with brand if possible):**

Ball Mill 1 (Morgardshamma), Ball Mill 2 (ANI)

**Detail of application:**

The original set up had the pinion and trunnion bearings lubricated by the same centralised system. This had two down falls:

1. Lubrication rates- the differential between the pinion bearing and trunnion bearing application rates was too great. The customer was over lubricating the pinion bearing to ensure the trunnions bearings received adequate lubrication. Problems with lubricant waist and cleanliness.
2. Lubricant type- Pinion and trunnion bearings were lubricated with the same lubricant despite the differences in load, temperature, speed and environments the bearings were exposed the bearings were.

**Why MEMOLUB:**

Cost effective method to separate the lubrication of the pinions and trunnions. Pinion bearings are better suited to being lubricated via 20 kilogram containers.

**MEMOLUB solution:**

Single Memolub DS controller and two Memolub DS pumps, each pump supplies lubricant to 2 pinion bearings on each mill.

Mill 1 has a six point distributor lubricating two bearings and four labyrinth seals.

Mill 2 has a four point distributor lubricating two bearings and two labyrinth seals.

Each distributor is fitted with a proximity sensor to send conformation the site control system that lubrication is taking place.

**RESULTS:**

The system has operated without issue for 12 months. The mills operate in a tuff environment ambient temperature is between zero in the winter and forty plus in the winter. Bearings are bombarded with water, slurry and dust, all of which have in the past dramatically shortened the bearing life. Condition monitoring has indicated that the bearings remain in good condition.

**Financial savings:**

- Grease consumption
- Use of a more economical grease in pinion bearings
- Bearing longevity and reduced service requirements
- Reduction in unscheduled maintenance
- Improved operational up time and production

**Pictures :**

