

Company: Anglo American Platinum

User Report 01/2014

Anglo American Platinum Limited is the world's largest primary producer of platinum, accounting for about 38% of the world's annual supply. Most of the group's operations lie to the northwest and northeast of Johannesburg, South Africa.

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UG2C Concentrator -

Application:

Three banks of six Warmann 12/10 slurry pumps.
Each pump is fitted with 6 pieces SPC4750 wedge belts.

Problem:

Belt service life was 10 weeks
Pulleys required replacing on average 6 – 8 months, a result of belt slip causing excessive groove wear.
The premature replacement of belts and pulleys was costly and disruptive to normal operations and plant productivity.

Solution:

At the end of June 2014, the existing belts and pulleys were replaced and the drives were fitted with SPC4750 Optibelt Red Power 3 maintenance free belts.

At time of writing the belts have been operating for six months without any further re-tensioning or maintenance.

In November 2014, one pump experienced severe slurry contamination due to Gland Seal Failure. The belts and surrounding area was badly flooded and the belts severely contaminated.

The site engineers were advised to mark the existing RP3 Belts, wash them down with water and detergent mixture and to re-install the belts in the same sequence, on completion of the Gland seal repair.

This procedure was carried out with extreme reservation by site engineers, but to date, now 8 weeks later, the belts are still in operation without incident or maintenance since re-installation.

The performance of the drives has exceeded the section foreman's expectations and the Red Power Belts have become a stock item.

6 x SPC3550 Red Power have been fitted to Warman 2nd mill discharge pumps in January 2015.

All drives including crushers and flotation cells will systematically be converted to Red Power over the year.

Red Power 3 belts not only deliver a 50% higher power rating with 97% efficiency levels, but are also designed to give a maintenance free life of typically 25,000 hours. i.e 3 years continuous running 24/7 with no re-tensioning required.

All comments and performance capabilities stated above can be verified by the senior engineering foreman – Dan Matlala on Telephone: +27 (0)14 784 1729 Cell Phone: +27 (0)83 7087958