About Cadia Valley Operations

Cadia Valley Operations is one of Australia’s largest gold mining operations, producing 473,195 ounces of gold and 44,778 tonnes of copper in the 2012 financial year.

Located in central western New South Wales, it is approximately 25 kilometres from Orange, and 250 kilometres west of Sydney.

Cadia is 100% owned by Newcrest Mining Limited.

KMB Case Study

A Cadia Valley Success Story

An on-site trial of a revolutionary mechanical bucket is yielding benefits for Cadia Valley Operations as well as its manufacturer, Keech Mining Supplies.

Keech Mining Supplies specialises in providing the mining industry with quality buckets, ground engaging tools, specialised equipment and after sales support.

The company has designed and manufactured a unique bucket for underground mine loaders - the Keech Mechanical Bucket (KMB) - to address the need for quick changeouts on mine sites to keep equipment working productively. The KMB’s proprietary “hammerless” system has proven to dramatically reduce the time needed to replace edge wear systems, in turn reducing maintenance costs and increasing bucket availability for production. Three lip fronts are kept for each bucket - one in use, one undergoing maintenance and one spare in the workshop ready to fit when needed. One of the first to adopt the KMB was Newcrest’s Cadia Valley Operations in Orange, New South Wales.

Cadia purchased its first Keech Mechanical Bucket in mid 2011, and that year had six buckets working on-site.

Through 2012 and 2013, Keech Mining Supplies and Cadia Valley Operations collaborated on improving the KMB and refining its features to suit the demands of hard rock mining. For instance, the shape of the casting has been modified and the introduction of Keech Gold steel has increased the amount of hours it can work before change out is required.

With significant increases in production and reduction in cost proven on site, Newcrest changed over its Cadia fleet to 14 KMBs.

Operator hours are drastically reduced thanks to the unique KMB.

The KMB’s exclusive design features a bucket manufactured in two sections. The front section is compatible with a range of mechanical or weld-on edge systems, and the back end offers a variety of capacities and protection systems.

Previous loader buckets used at Cadia, and on most other mine sites around the world, use weld-on lips which can take 24 to 36 hours to change out. Cadia’s maintenance staff have proven the KMB can be changed out in only three hours.

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www.keechminingsupplies.com.au
**Key Features of the KMB**

- Constructed from quench and tempered steel plate, the KMB provides maximum strength and wear resistance.
- Based on a globally proven design.
- Fitted with proven Keech GET packages.
- The entire KMB is ‘hammerless’.
- Suitable for hard rock mines including nickel, zinc, copper and gold.
- Available in a range of sizes from 7 cubic metres to 12 cubic metres to suit all scoop loaders.

**Key Benefits of the KMB**

- Easy access to underground mines.
- Ability to change the bucket front or back end as wear or damage occurs, while the loader remains at the underground workshop.
- Increased bucket availability.
- Increases production time.
- Low maintenance turnaround time with the bucket front lip section changed out in around three hours.
- Reduced spare bucket inventory with the ability to carry either front lips or bucket back ends underground.

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Keech works closely with its customers to ensure they gain the most from its products.

The local representative from Keech Mining Supplies keeps in close touch with Cadia’s maintenance team to ensure feedback is quickly provided to Keech. Keech’s Sales Manager visits the site every three to six months, and Cadia’s maintenance staff have visited Bendigo to inspect the Keech manufacturing operations and Innovation Centre where the KMB product developments are refined.

**Less downtime means more productivity.**

The KMB has been designed with the rigorous demands of Keech’s mining clients in mind. Time out means lost production on every mine site, so the unique properties of the Keech Mechanical Bucket are designed to cut maintenance time as much as possible so machinery keeps on working.

Keech designs, manufactures and sources the world’s best proven performers in mining buckets, lips, GET and wear components. Its system is proven, versatile and used in mines around the world.

Keech Mining Supplies looks forward to continuing its close relationship with KMB owners like Cadia Valley Operations, working cooperatively to refine productive tools for the mining industry.

To learn more about the Keech Mechanical Bucket and our other productivity enhancing systems, email Brad Clark at bclark@keech.com.au, phone 0419 851 913 or build your own bucket at www.keechminingsupplies.com.au