La Coipa mine is now one of the Canadian-based Kinross Gold Corporation projects which spread over North and South America and Russia. It is located in the Maricunga mining belt at an altitude of 4000 metres, 140 km northeast of the city of Copiapó and 940 km to the north of Santiago.

Mine management, through the Engineering department, requested Maptek to survey the Coipa Norte pit in order to validate the topography of abandoned sectors with difficult access.

A consultancy project began in May 2009 to conduct 3D surveying of the principal gold and silver pit of La Coipa, using the Maptek I-Site™ 4400LR laser scanning system.

The speed of data acquisition allowed scanning of the Coipa Norte pit as asked, as well as another 2 pits known as Ladera Farellón and Purén, all completed within 1 day of scanning.

A total area of 178.5 hectares was covered. Scanning was rapid and safe. A highly detailed model was generated, preserving the exact geometry of wedges, slopes and landslides; accurate volumes were then calculated.

The digital survey models can also be used in geotechnical applications, including the evaluation of designs versus reality, obtaining the angle of real and apparent slopes, and toes and crests.
High resolution digital imagery can be displayed in I-Site Studio software for realistic, high resolution 3D viewing.

The versatility of the I-Site system allows data capture and generation of reliable results in just a few days of work. In this case, the system also had to operate under extreme conditions of high altitude and low temperature.

Thanks to
Guillermo Olivares
Chief Engineer, Short Term Planning
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Simultaneous high resolution digital photographs are captured by the I-Site 4400LR scanner.