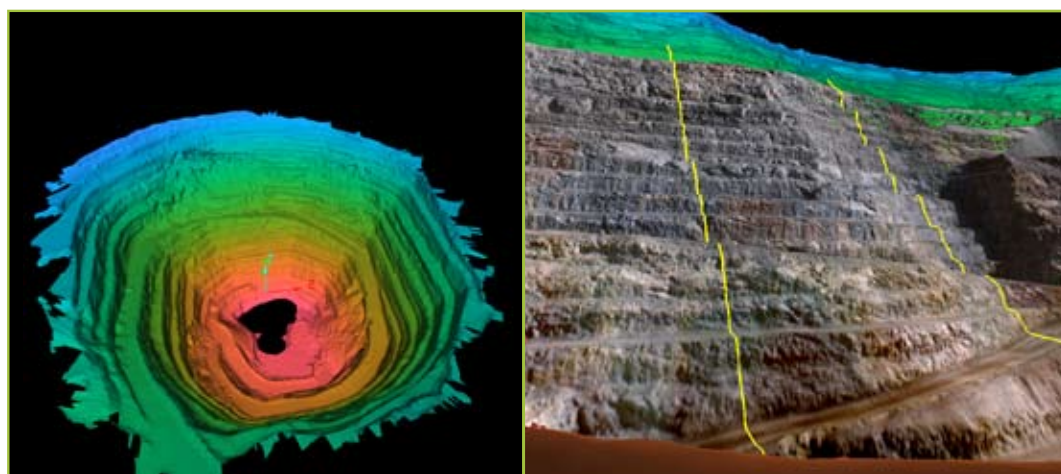


Safe Survey Technology

Mantos de Oro commenced development of several mineral deposits in the high mountain ranges in the north of Chile in the 1980s; La Coipa being of major importance. Maptek™ I-Site™ technology was recently used to safely survey abandoned areas of several open pits.



I-SITE 4400LR ADVANTAGES

- Range up to 700 metres
- Software tools for auto-registration and backsighting
- Built-in compensator for levelling
- Rapid registration of multiple setups for efficient large area coverage
- 37 megapixel panoramic imagery
- Ideal for survey of difficult areas

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.

From a remote stand off point, it was possible to capture inaccessible areas inside the pit.

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.





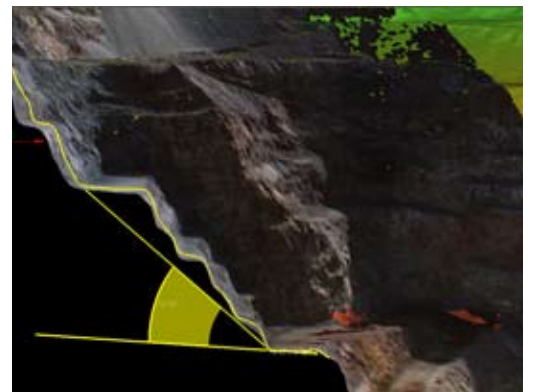
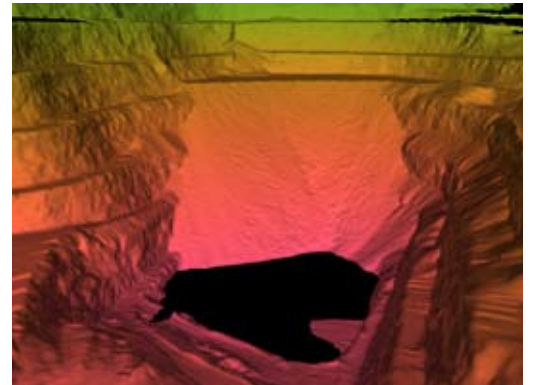
'THE I-SITE SYSTEM
ALLOWS DATA
CAPTURE AND
GENERATION OF
CONCRETE RESULTS
IN JUST A FEW DAYS,
IN THIS CASE UNDER
EXTREME CONDITIONS
OF HIGH ALTITUDE AND
LOW TEMPERATURE.'

Simultaneous high resolution digital
photographs are captured by the I-Site
4400LR scanner.

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
Mantos de Oro*



*Panorama and scans of La Coipa deposit in northern
Chile provide accurate data for topographic modelling
and analysis*