



## Rehabilitation

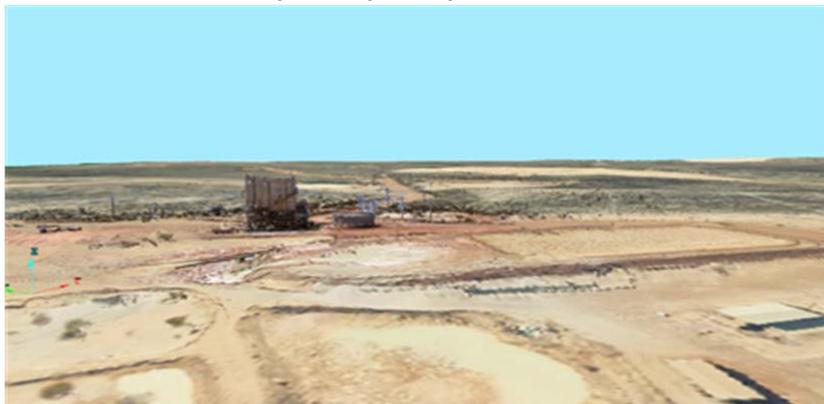
### Laser scanners

In 2013 Iluka Resources investigated the use of laser scanners to assist in its rehabilitation planning and monitoring. Although scanners have been used by mine surveyors on Iluka's mine sites for many years, it was thought that expanding their use to geological mapping and assessing the extent of irregular areas, such as mine pits and vegetation, will improve accuracy and efficiency across the rehabilitation sites.

The Maptek I-Site 8810 3D Laser Scanning System was tested at Iluka's Eneabba mine site, approximately 150km south of Geraldton, Western Australia. Mineral sands operations have been conducted at Eneabba for over 40 years. Mining idled in April 2013, and rehabilitation is ongoing. Eneabba is one of Iluka's most active rehabilitation areas, with over 180 hectares rehabilitated in 2014.

Iluka has deployed the laser scanner technology across several of its sites, with the main purpose of:

- surveying open areas, tailings dams, stockpiles and pits for the purposes of rehabilitation design, mine design, scheduling, budgeting and earthworks operations;
- end of month survey volume reconciliation from current rehabilitation work areas or mining work areas on operational sites;
- topographic surveys for design conformance and drainage control designs;
- surveys for topsoil reconciliation and thickness conformance post spreading;
- infrastructure surveys for measuring distances and lengths of structures for project teams; and
- evolution modelling of tailings storage facilities and final landforms.



#### About Iluka Resources

Iluka is a major participant in the global mineral sands industry. It is involved in the exploration, project development, operation and marketing of mineral sands products. Its main assets and operations are located in Australia, with a mining and processing operation also in Virginia, USA.

#### Iluka's rehabilitation practices

Rehabilitation of areas subject to mining is a major focus of Iluka's environmental management activities. The Company has an established record of land rehabilitation over several decades. Iluka's rehabilitation credentials have been an important component of the company gaining access to new mining areas, particularly where mining has not been a common part of land usage patterns.

#### Benefits

- More accurate rehabilitated surface profiles leading to less potential for erosion
- Development of detailed and measurable images of the pit including depth, surrounding landscape, vegetation and stockpiles
- Cost savings with more accurate measurements available on stockpile volumes for better rehabilitation planning



Laser scanner (above); laser scans overlaid with aerial photography showing infrastructure mapping at Eneabba, Western Australia (left)