MAPTEK™

PointStudio

Geotechnical Tools

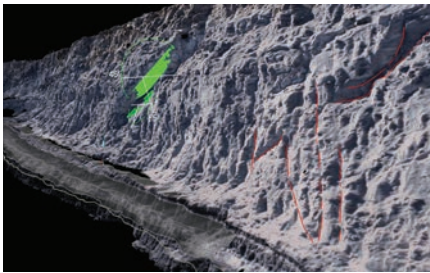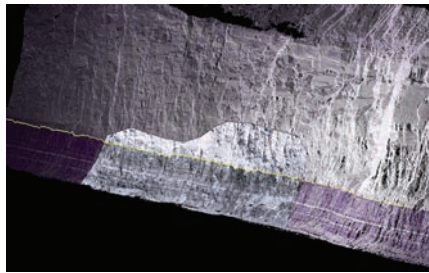Powerful software featuring intuitive workflow

Geotechnical tools

The Maptek™ PointStudio™ Geotechnical add-on features powerful analysis and mapping tools for managing risk in surface and underground mines.
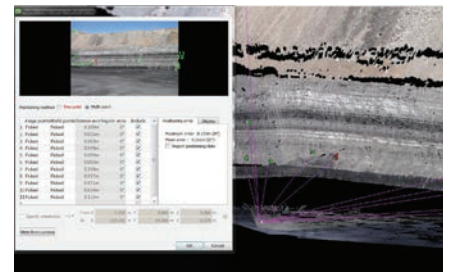
Geological mapping

1. Use **Smart Line** tools to trace geological boundaries onto high resolution imagery direct from the laser scanner.

2. Use **Intensity Map** combined with imagery to highlight key alteration zones.

3. Render high resolution HDR images over 3D scan data for increased accuracy.

Geotechnical features at a glance

Kinematic Analysis

Create great circles (planes), analyse potential failures, add daylight envelopes and friction cones.

Stereonet

Plot a stereonet of all discontinuities and other structurally defined objects.

Discontinuity

Select an area of interest to automatically identify all other areas in the view that meet the selection criteria. Discontinuities can be merged to avoid duplicate data.

Rose Diagram

Plot the frequency versus the direction of the data to identify directional trends.

Dip and Strike

Display the dip and strike of a feature.

Analyse Surface Change

Detect changes in surfaces such as walls, batters, development drives and faces on the surface and underground. Overlapping surfaces scanned at different times are used to display movement and rate of movement.
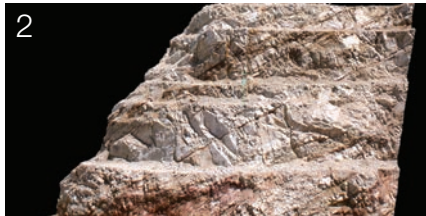
Specialised geotechnical tools and the power of PointStudio software - customisable toolbars, powerful database, intuitive filtering, flexible registration and extensive analysis tools.
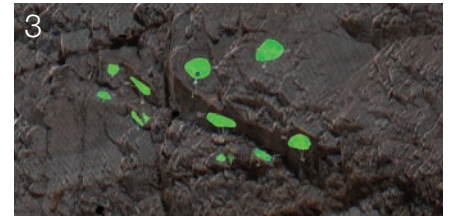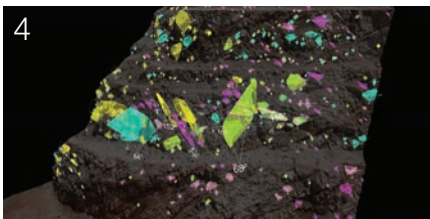
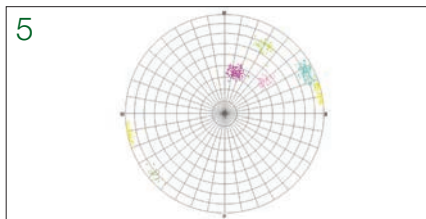## Geotechnical analysis
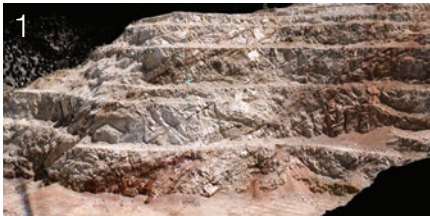
1

Scan the area using a laser scanner.

2

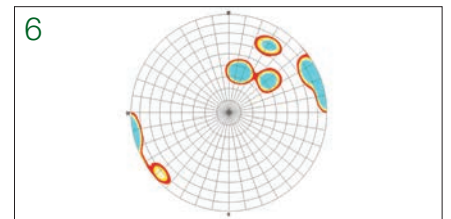Use applicable filters to remove excess data and rogue points from the area of interest.

3

Use the **Query** tool to extract dip and dip direction with user defined parameters.
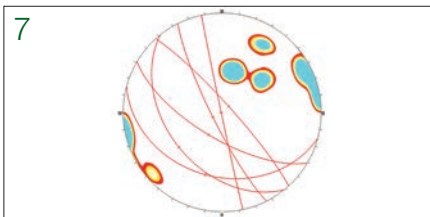

4

Automatically extract discontinuities using the **Extract Discontinuities** tool.
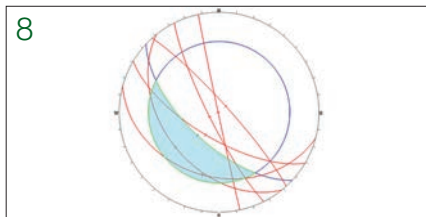

5

Create a **Stereonet** plot of discontinuities.
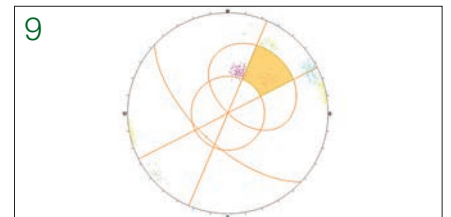

6

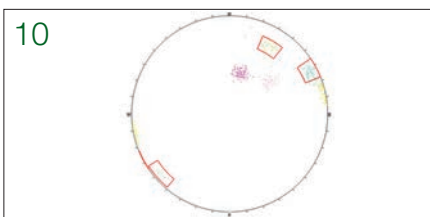Contour the poles to visualise trends.

7

Add Planes to poles to begin Kinematic Analysis to identify wedge failures.
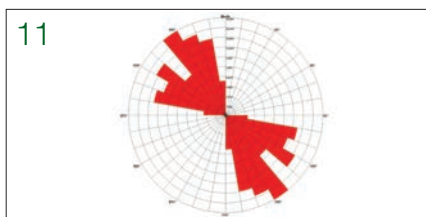

8

Use the **Kinematic Analysis** tool to analyse potential wedge failure.
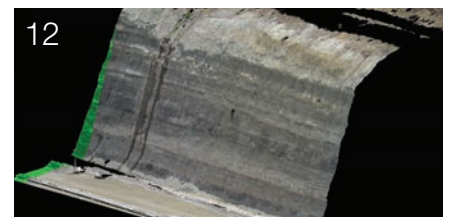

9

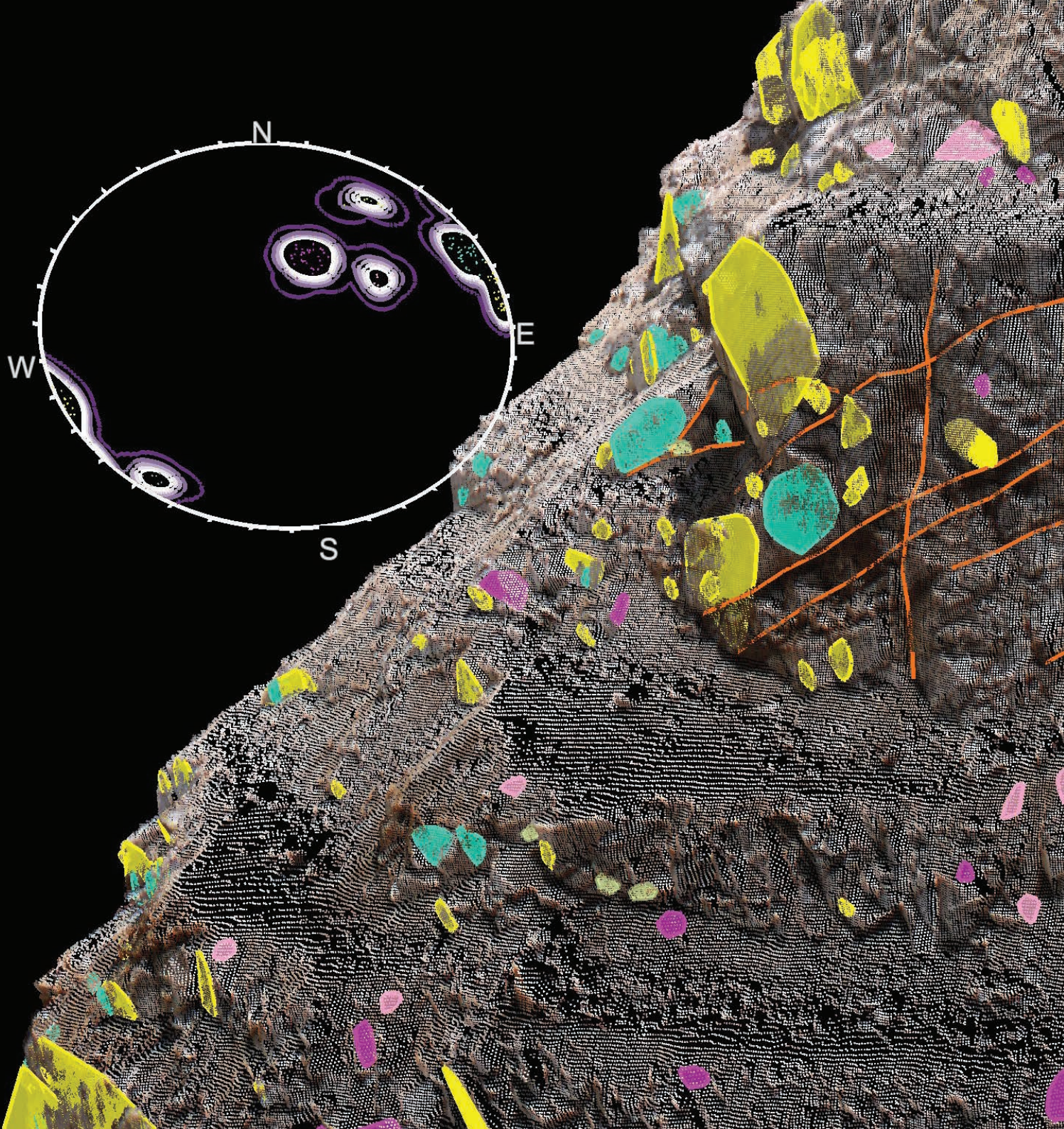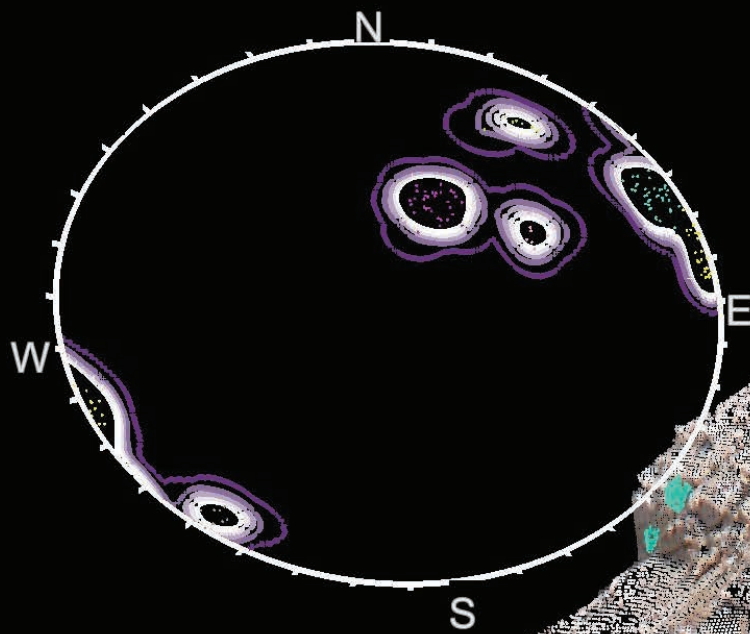Use the **Kinematic Analysis** tool to analyse potential planar failure.

10

Create **Set Windows** to highlight specific areas.

11

Create **Rose Diagrams** for blast engineers.

12

Export geotechnical data, along with ireg imagery, directly from PointStudio into Vulcan.

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