

CASE STUDY: VAN DIEMAN MINES

Tasmania's Van Dieman Mines Selects MapInfo and Encom Technology to Build a Comprehensive Location Intelligence Solution



"This project highlights not only the flexibility of the Discover-MapInfo Professional solution, but also the value specialist solutions can provide to industry verticals."

Neil Kinnane

Executive Director - Exploration & Operations, Van Dieman Mines

CHALLENGE

VDM needed to secure funding from potential investors with a comprehensive report on the resources to be mined. Their data was on paper maps, dating from as far back as 1902.

SOLUTION

Working with MapInfo Business Partner, Encom Technology, an innovative exploration mapping company, VDM were able to convert their data into a GIS database using MapInfo technology. They were also able to create an impressive 3D animated "fly through" of the region.

Van Dieman Mines (VDM) is a publicly listed mining company based in Tasmania, Australia, who use location intelligence solutions to aid its mining efforts. In early 2004, VDM made a decision to list on the Alternative Investment Market (AIM) of the London Stock Exchange to raise funds to commence its mining operations. To be successful, VDM was required to develop prospectus presentations for potential investors that accurately depicted its resource base in Tasmania.

The Challenge

To list on the AIM it was necessary to submit a comprehensive and precise Competent Persons Report that summarised the resources contained within thirteen exploration tenements (alluvial tin and sapphire) in north-eastern Tasmania.

Neil Kinnane, Executive Director - Exploration & Operations, Van Dieman Mines said, "While normally a formality, the huge number of drill holes, in excess of 2,000 drilled during the period 1902 to 2005, made compilation of the database and accuracy of plotting difficult. However it was necessary to compile this database so as to provide rapid analysis of the resources and the easy preparation of 3D presentations highlighting the potential of the resources for investor seminars."

The Solution

Van Dieman Mines commissioned Encom Technology, a leading innovator in the development of specialist software tools for the exploration industries and geosciences, to transform hard copy maps of north-western Tasmania into a geographic information system (GIS) database.

Encom Technology's consultancy team was able to transform hard copy maps from as early as 1950's into digital formats using MapInfo Professional and Encom's flagship software solution, Discover. Encom Discover is built on MapInfo Professional and is a GIS solution designed especially for the geosciences, providing the tools to effectively compile, visualise, analyse and map spatial geoscience data.

VDM's data was entered into the system as Australian Geodetic Datum (AGD) coordinates and was followed by entry of technical information, Relative Levels (R.L.'s), drill hole data; depths to bedrock, hole depths, grades and intersections.

Neil Kinnane, Van Dieman Mines said, "All this was achieved in an amazingly short period and as a result Encom, using MapInfo as the base software, produced a set of excellent presentation maps detailing tenements, drill hole locations and resource outlines. These maps were subsequently updated into prospectus presentation maps using Encom's Discover software."

The Benefits

Encom's Discover solution enables VDM to build geological datasets; compile drill-hole cross-sections and plans; produce high-quality scaled maps, with geological symbols and line-work; create graphs with maintained spatial link; create, manipulate, contour and profile gridded surfaces; and optionally display GIS data in a 3D environment.

As part of the project, drill-hole collar locations (surface location of drill holes) were digitized in MapInfo Professional, and the drill-hole

THE MAPINFO ADVANTAGE

Encom's Discover solution enables VDM to build geological datasets; compile drill-hole cross-sections and plans; produce high-quality scaled maps, with geological symbols and line-work; create graphs with maintained spatial link; create, manipulate, contour and profile gridded surfaces; and optionally display GIS data in a 3D environment.

MapInfo Asia Pacific Headquarters

L4 170 Pacific HWY
Greenwich, NSW 2065 Australia
T: +61.2.9437.6255

www.mapinfo.com.au

Encom Technology

L1 123 Walker Street
North Sydney NSW 2060 Australia
T: +61.2.9957.4117

www.encom.com.au



With the assistance of Encom and MapInfo's technology, VDM successfully listed on AIM and raised GBP3.3 million to fund commencement of its mining operations in north eastern Tasmania.

attribute data was tabulated in Excel and then imported through Discover into the GIS environment.

Cross-sections of drill-holes displaying colour modulated concentrations of the indicator element were created using the drill-hole module. Cutoff minimum and maximum concentrations were assigned to each down hole in cross-section view by digitizing the target boundary (area containing potential economic mineralisation) producing vertical cross sections (a profile from the land surface down through the target outlined by the drill holes) outlining these resource zone (closed polygons).

To produce a 3D solid body representing the potential resource body for each of the enrichment areas, these polygons were loaded into Encom's Discover 3D module. For the final presentation, a selected series of views including a 3D navigation for each project area was recorded using the Discover 3D Fly through Animation tool. This allowed VDM's management to present their project to potential investors using 3D animation presentations

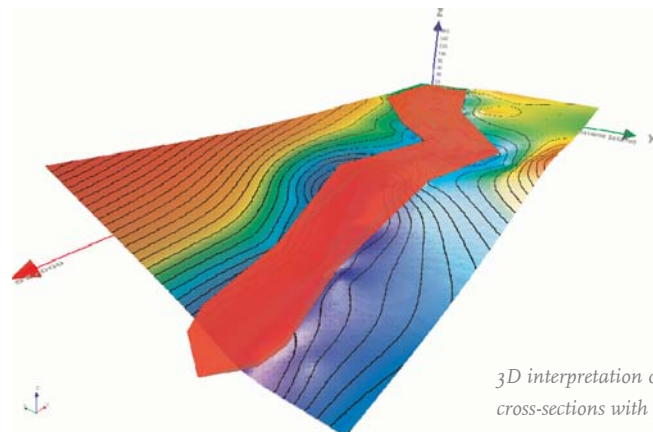
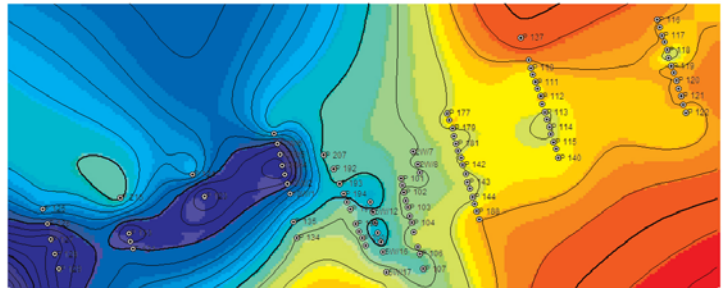
which provided a more realistic impression of the resource targets.

"This project highlights not only the flexibility of the Discover-MapInfo Professional solution, but also the value specialist solutions can provide to industry verticals," said Neil Kinnane, Van Dieman Mines.

VDM continues its association with Encom and MapInfo and is now in the process of adding further data into its GIS base with a long term aim of preparing a basement topographic map for the region. This data will enable VDM to more accurately define tertiary palaeo-drainage systems (ancient river systems) and thus target new alluvial tin and sapphire bearing resources.

With the assistance of Encom and MapInfo's technology, VDM successfully listed on AIM and raised GBP3.3 million. VDM have since implemented multiple licences of the respective software for their future project development.

Final layout of drillhole collars and orezone boundary.



3D interpretation of orezone interpolated from drillhole cross-sections with gridded basement surface.