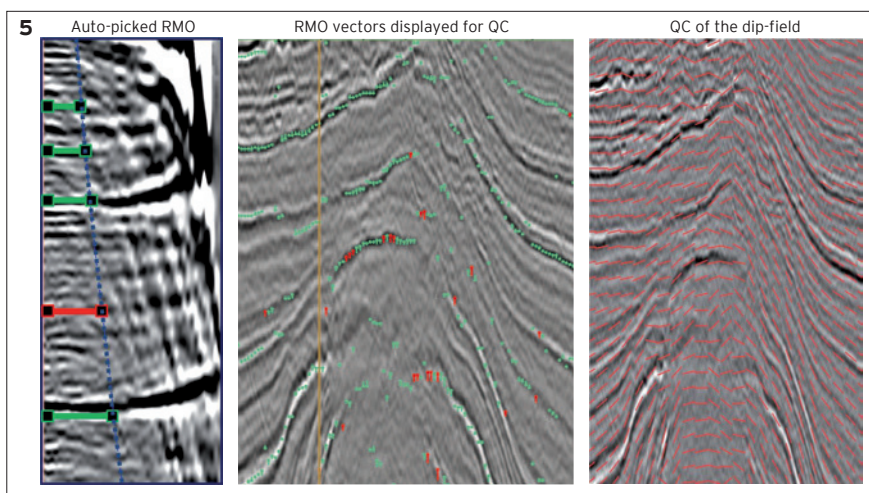




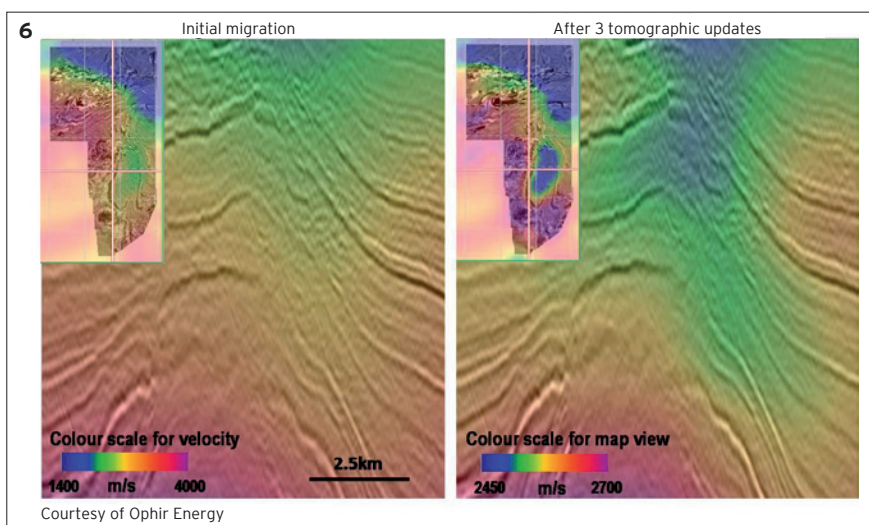
# Depth Imaging

DownUnder GeoSolutions offers two depth migration algorithms: a Kirchhoff and a Gaussian beam. Both are true amplitude, operate in isotropic or VTI mode and handle turning rays. We have an RTM in development. The velocity building toolkit contains automated dip field and residual picking combined with excellent visualisation tools for QC. Multiple iterations of reflection tomography are run to refine the velocity field. Constraints for the reflection tomography include, but are not limited to, smoothing lengths, faults and horizons.



**Figure 5.** The RMO is auto-picked using a wavelet based algorithm and the size and magnitude of the vector is displayed on a stacked section for QC. The dip field auto-picker is very robust and handles steep dips extremely well.

**Figure 6.** Multiple iterations of reflection tomography are run to optimise the velocity model. These figures show how the tomography updated the model with a low velocity zone coinciding with a volcano, resulting in an improved image and more accurate structure.



## Contact Us

You'll find DownUnder GeoSolutions at [www.dugeo.com](http://www.dugeo.com). Plus we have offices in all corners of the world. Check the website for the location nearest to you. Or contact our head office in Perth Australia on tel +61 8 9287 4100, fax +61 8 6380 2471, email [sales@dugeo.com](mailto:sales@dugeo.com).