migrating said travel time to the correct depth and horizontal offset of the reflecting point.

3. The method recited in claim 1 wherein marine seismic exploration includes recording fathometer readings along said line of exploration; and

using said fathometer readings to determine the travel time used in the step of converting travel time to a depth section.

4. The method recited in claim 1 wherein the step of generating a depth section without said anomaly includes:

manually assigning a control layer and a velocity to the layer including said anomaly; and

generating a digital model of said surface layer without said anomaly.

5. The method recited in claim 1 wherein the step of generating time corrections includes determining the time difference between the reflection times of a subsurface with and without said anomaly; and

storing a matrix of the time differences.

6. The method recited in claim 5 wherein the step of time correcting includes a time variant application of said time differences to the traces of said seismograms.

7. The method recited in claim 1 further comprising stacking the time corrected traces.

8. The method recited in claim 1 wherein the distortion removed by said method is introduced by a surface layer anomaly.

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