DMO AND MIGRATION: IMAGING TOOLS IN GEOPHYSICS

CRAIG J. BEASLEY

Western Geophysical Company
1 Ang Mo Kio Street 64
Singapore 2056

The primary goal of a seismic survey is to provide a clear and accurate image of the subsurface structure of the earth. Obstacles to achieving this objective such as reverberations of the seismic source, noise in the recorded data, and lack of detailed knowledge of the physical characteristics of the subsurface often prove difficult if not impossible to overcome. However, the class of problems in seismic imaging related to focusing the seismic reflections has enjoyed dramatic success in recent years. Dip moveout (DMO) and migration are numerical processes based on the wave equation that attempt to focus the seismic images in much the same way as a camera lens focuses light. This paper will introduce the concepts of DMO and migration and demonstrate the power of these techniques through field data examples.

Warta Geologi (Newsletter of the Geological Society of Malaysia), Vol. 17, No. 4, July-August 1991