

Geometrics Knowledgebase

Estimating Depth to basement

Magnetic surveying as a means of estimating depth to basement requires the collection of a data set that can be processed to yield the average radial power spectra as a function of survey position. The assumption here is that the basement rocks are much more magnetic than the overlying sediment and make a much greater contribution to the observed magnetic anomalies than do the sediments at the longer spatial wavelengths. This type of power spectral analysis relies on accurate data that are extensive in two dimensions relative to both the depth of the basement and the aerial extent of structural high that you seek. If the data are not extensive, the spatial truncation of the data set will limit power spectra to short wave lengths and this is likely to bias the spectra power average yielding a poor estimate of depth to basement. If this discussion intrigues you, contact Magnetometer Sales for a more thorough discussion.

<http://support.geometrics.com/kb/questions.php?questionid=52>