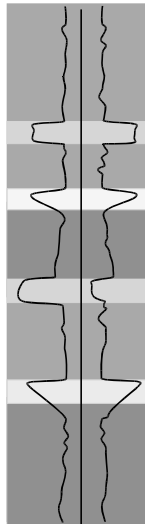


Maps and cross-sections II

Part I of this series introduced the idea of maps and cross-sections as ways to understand the geological subsurface. The basis for the maps and cross-sections is typically information from boreholes that were drilled for previous exploration or production.

The sketch at right begins a sequence of very schematic illustrations of how we get from borehole data to an understanding of the subsurface. We start here as any geologist must start, with the question “what is the geological character of this volume of the Earth?”. In our case, five boreholes have been drilled in the volume of interest, and Part III of this series starts us looking at the logs from those boreholes. Logs from boreholes are plots of variation in physical or chemical characteristics of rock (on a short horizontal axis) against depth downhole (on a necessarily long vertical axis). They are commonly shown

in pairs from a given hole, where the left and right traces show responses from two different logging tools or probes. In the example at right, a geologist would quickly see at least nine different lithologic intervals, as suggested by the shading.



Two logs from one borehole

An enigmatic volume of the Earth penetrated by five boreholes:

