

Indian Ocean and its mineral and petroleum resources with adequate illustrations. The author has presented several aspects of the exploitable mineral resources of Indian Ocean and it is, indeed, a welcome contribution. So far, there was no single book available which presented all basic facts on different types of mineral resources including petroleum. The author deserves to be credited for attempting to fulfil this longfelt need. Author's style of writing is commendable. He has touched upon all the important aspects and presented the facts very concisely and precisely. The book, therefore, serves its purpose as a handy reference work for students as well as for mineral economists, planners and policy makers.

*Oil and Natural Gas Commission  
Bombay 400 022*

S. K. BISWAS

**ADVANCES IN GEOPHYSICS.** Edited by B. B. Bhattacharya, Oxford IBH Publishing Company Private Limited, 1988.

This is a monograph of eleven papers brought out by the Department of Applied Geophysics of the Indian School of Mines, Dhanbad, to mark the Diamond Jubilee Celebrations of the School in 1986-87. The papers reflecting the main research activities of the Department range widely from in-seam seismics to digital analysis and application of Landsat imagery for augmenting regional geological maps.

There is a case-history of geophysical exploration for groundwater around Dhanbad and other areas in South Bihar. Another paper discusses the gravity field of Eastern India in relation to Singhbhum, Gondwanas of the Damodar Valley, Ranchi-Netarhat plateau, Bihar Mica Belt and Rajmahal Hills. Two papers are devoted to the seismicity of the Indian plate boundary along the Himalayas, Arakanoma and the Baluchistan Arc. Other papers cover some interpretation techniques, design and development of MPPO-TEM system, instrumentation and modelling for in-seam seismics, depth of investigation of different electrode arrays and EM anomaly enhancement due to leakage paths between the target conductor and the host rock. The interpretation techniques discussed include the application of a method of inversion to VES measurements, use of Werner's deconvolution for automated interpretation in gravity and magnetics, use of the Hilbert transform for analysing SP anomalies, depth determination to magnetic sources, computation of X, Y and Z components from the total magnetic field through filtered response functions etc.

Although the monograph covers but familiar ground, the effort is laudable. Special credit is due to the Department of Applied Geophysics for initiating the study of in-seam seismic wave propagation that finds increasing application in day-to-day mining of underground coal.

*Geological Survey of India  
AMSE Wing  
Bangalore 560 001*

A. G. B. REDDI