

Henderson). They suggested that 'spilitization may in some circumstances affect REE abundances and their chondrite normalized patterns', which is in fact a very significant point to be considered in these studies.

Acknowledgements: We are grateful to Dr. R. Hekinian, Centre Oceanologique de Bretagne, France for providing Carlsberg Ridge samples and to Dr. M. Sankar Das for providing Neutron Activation Analysis Laboratory facility of the Bhabha Atomic Research Centre, Bombay and also for his interest in our research projects.

This investigation was supported in part by a grant from the Council of Scientific and Industrial Research, India to one of us (K. V. S.).

References

- HEKINIAN, R., (1968) Rocks from the Mid-Oceanic ridge in the Indian Ocean. *Deep Sea Research*, v. 15 pp 195-213
- HELLMAN, P. L. and HENDERSON, P., (1977) Are rare earth elements mobile during spilitization? *Nature*, v. 267, pp 38-40.
- REDDY, G. R., RAO, B. L., PANT, D. R. and DAS, M. S., (1976) Neutron activation analysis of 13 minor and trace elements in geological samples. *Jour. Rad. Anal. Chem.*, v. 33, pp. 39-51.
- SUKHESWALA, R. N., (1974) Gradation of tholeiitic Deccan basalt into spilite, Bombay, India. In *Spilites and spilitic rocks* (ed Amstutz, G. C., et al) Heidelberg Springer Verlag, pp 229-250

Address of the Authors

K. V. SUBBARAO and V. V. REDDY*, Indian Institute of Technology, Powai, Bombay-400076
(*Present address: Engineers India Limited, New Delhi-110001)

G. R. REDDY, Bhabha Atomic Research Center, Trombay, Bombay-400085

R. N. SUKHESWALA, St. Xavier's College, Bombay-400001.

(Received Feb 23, 1979)

REVIEW

ASBESTOS EXPLORATION IN RORO—A PROSPECTIVE STRATEGY by P. C. Pal assisted by S. Narasimha Rao and P. Unnikrishnan, Centre of Exploration Geophysics, Osmania University, Hyderabad-500007.

Asbestos mineralisation at Roro is restricted to the thin zones of serpentinisation that occur at the interfaces of the rhythmically layered ultramafics. The fibre localisation, seemingly, is better at the interface of serpentinised saxonite (also called clot peridotite, CLP) and serpentinised pyroxenite (SRP). In chapter 1 and 2, the author (s) have done a commendable job in consolidating the available data on the Roro ultramafics in general and the asbestos mineralisation in particular.

The absence of direct observational evidences because of discontinuous exposures of ultramafics has necessitated resorting to geophysical surveys. The authors have rightly appreciated that the geophysical methods cannot straightaway unravel the mineralised zones but they can only help in geological mapping of the ultramafics from which the possible areas of mineralisation could be surmised for confirmation later by test drilling. The problem, therefore, is to trace the extensions of the litho-

units CLP and SRP, (author's abbreviations) from known areas to the unknown by geophysical methods. Three types of geophysical methods were employed :

- (a) Vertical intensity (ΔZ) magnetic survey.
- (b) Electrical resistivity profiling survey, and
- (c) Vertical Electrical Sounding (VES).

Thick forests around Roro, undulating topography and erratic soil thickness are stated to have created unwarranted noise in the resistivity profiling. Likewise the ultramafics are serpentinitised to varying degrees and this factor also seem to be a cause of ambiguity in resistivity surveys. So the resistivity data was used more as a supplement to the magnetic observations. It is a happy augury to note that the authors have tried to project at relevant places in chapters 4, 5 and 6, the limitations of each method and how the interpretations have to be blended with the geologic setting.

Synthesis of data and the correlations attempted are, however, regrettably masked by too much of theorisation. It is, therefore, difficult to prudently summarise what exactly has been achieved by this exploration programme.

The monograph, however, is a good beginning in the sphere of exploration geophysics. In fact 'Geophysical exploration for Asbestos at Roro—a case study' would have been an apt title for it. The references could have been well documented by giving the titles of all the papers instead of only a few.

As it is a practical case study dealing with an Indian example, it is recommended as a reference book for the post graduate students as also professional geophysicists and geologists.

P. K. RAMAM.

ANNOUNCEMENTS

PROFESSOR L. RAMA RAO GOLD MEDAL

The Council of the Geological Society at its meeting held on 26th May 1979 has decided to award the Professor L. Rama Rao Gold Medal for the year 1977 to Professor K. S. Valdiya, Professor of Geology, Kumaun University, Nainital.

SYMPOSIUM ON PURE & APPLIED SEDIMENTOLOGY

The Second Convention, Indian Association of Sedimentologists, will be held at the Department of Geology, Manasa Gangotri, Mysore from 21–23 December 1979 (provisional) under the auspices of the University of Mysore, Geological Survey of India, Geological Society of India and the Mineralogical Society of India.

The following themes are proposed to be covered during the Convention.

<i>Session</i>	<i>Theme Title</i>
i	Lithostratigraphy, Tectonics and Sedimentation.
ii	Lithofacies and Cyclical sedimentation.
iii	Textures and Primary structures of Sedimentary rocks.
iv	Paleocurrent Analysis.
v	Mineralogy and Petrogenesis of Clastic and Carbonate rocks.
vi	Geochemistry, origin and depositional environments of sedimentary rocks and ore deposits.
vii	Coal petrology and coalification.
viii	Paleogeography and Paleohydrology.
ix	Groundwater studies in sedimentary terrains.

For further details contact :

Prof. M. N. Viswanathiah

Department of Geology, Manasa Gangotri, Mysore 570 006.