

SECTION D

PRELIMINARY HYDROGEOCHEMICAL STUDIES ON THE MUTURAJAWELA PEAT DEPOSIT

✓ C. B. Dissanayake, A. Senaratne and S. V. R. Weerasooriya

(Dept. of Geology, University of Peradeniya)

and G. P. Wannigama

(Dept. of Chemistry, University of Peradeniya)

Water samples were collected on a square grid basis from the Muturajawela peat deposit and analysed for copper, total iron, manganese, cobalt and zinc using atomic absorption. Average total trace metal concentrations were generally well below W. H. O. accepted maxima and below the values determined in a perimeter outside the peat deposit. The low values are due to absorption by humic matter and clay sediments associated with peat. Among the trace metals, copper showed the expected high preference for peat. Ground water pH averaged 4.5 to 6.0. Conductivity and salinity were high due to underground seepage of saline water from the nearby canal through permeable clay sediments. In some locations such seepage accounted for relatively high trace metal concentrations and an odour of hydrogen sulphide.

References

1. Tebbutt, T. H. Y. Principles of water quality control. Oxford, Pergamon Press, 1979.
2. Tennakoon, D. T. B., Dissanayake, C. B. and Weerasooriya, S. V. R. *Proc. Sri Lanka Assoc. Adv. Sci.* 36 79 (1980).