

## SECTION E

### PRELIMINARY STUDIES ON TAP WATER CHEMISTRY IN KANDY REGION

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More than 80% of cancer cases are of environmental origin, long term exposure to low concentrations of certain metals being one of the contributing factors. Tap water is a potential carrier for such trace metals.

The composite sampling method was used throughout this tap water survey in the Kandy region. Zinc, copper, lead and iron were determined using atomic absorption. It was observed that metal concentrations depended on pH, temperature, period of contact with pipelines and the presence of soluble bicarbonates. The highest values observed for copper and lead were associated with heavily welded, aged pipelines. Nitrate content was higher in PVC pipelines than in metal pipelines, due to the ability of metals to denitrify the slightly acidic water.

#### References

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### TRACE METAL ANALYSIS OF RIVER SEDIMENTS

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A programme for a systematic analysis of river sediments as an index of mineralisation and heavy metal deficiencies of significance to environmental studies has been initiated.

This paper reports results of a study of the stream sediments of the Rakwana sheet. Atomic absorption spectrophotometric analysis for Fe, Mn, Zn, Cu, Ca, Mg and Co have been carried out. The analyses have been supplemented by use of Instrumental neutron activation techniques. The results indicate high Mn and Zn of the order of 1000 - 2000 ppm. Sediments from Timbolketiya sheet also indicate high U and Th as analysed using neutron activation analysis. Samples were separated from quartz and subjected to acid digestion.

The significance of these results and the need for extended study will be discussed.

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