

## IRON BEHAVIOUR IN THE ZAIRE ESTUARY

by

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### I. INTRODUCTION

Field evidence for iron removal during estuarine mixing has been presented by various authors (COONLEY, BAKER & HOLLAND, 1971; DUINKER & NOLTING, 1976; HOLLIDAY & LISS, 1976; YEATS & BEWERS, 1976; BOYLE, EDMOND & SHOLKOVITZ, 1977). However most of these surveys have been carried out in temperate regions in the USA and western Europe, and may further have been affected by pollution. It was thus worthwhile to investigate the behaviour of dissolved iron in a large tropical estuary. Previous studies have been generally carried out on samples filtered through 0.45  $\mu\text{m}$  pore-sized filters, but there are now many examples of a decrease of the so-called dissolved iron in river waters through smaller pore sizes (KENNEDY, ZELLWEGER & JONES, 1974; WAGEMANN & BRUNSKILL, 1975). The effect of pore size, however, has not often been investigated in estuaries. Therefore, most times we systematically filtered the Zaire estuary water samples over various filters ranging from 5  $\mu\text{m}$  to 0.025  $\mu\text{m}$  pore size.

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### II. SAMPLING AND FILTRATION

Table I gives the numbers of the stations sampled in seaward order