

ABSTRAK

Faradita Goma. “Analisis logam berat pada sedimen di Sungai Tanoyan dengan menggunakan X-Ray Fluorescence” Penelitian ini bertujuan untuk mengetahui unsur logam berat dan unsur-unsur apa saja yang terkandung dalam sedimen disungai tanoyan. Telah dilakukan pengambilan 5 titik cuplikan berupa sedimen untuk analisis logam berat dan unsur penyusun pada setiap cuplikan. Hasil analisis menunjukkan bahwa pada setiap cuplikan (T1), (T2), (T3), (T4) dan (T5) terdapat logam berat. Cuplikan 1 (T1) Besi (Fe) 523300 ppm dan Mangan (Mn) 9700 ppm. Cuplikan 2 (T2) Besi (Fe) 503300 ppm, Mangan (Mn) 8200 ppm dan Seng (Zn) 300 ppm. Cuplikan 3 (T3) Besi (Fe) 423600 ppm, Mangan (Mn) 5600 ppm dan Seng (Zn) 200 ppm. Pada cuplikan 4 (T4) Besi (Fe) 432800 ppm, Mangan (Mn) 7900 ppm, Seng (Zn) 1000 ppm, Tembaga (Cu) 800 ppm dan Timbal (Pb) 1100 ppm. Dan pada cuplikan 5 (T5) (Fe) 500700 ppm, Mangan (Mn) 7100 ppm, Seng (Zn) 900 ppm dan Tembaga (Cu) 900 ppm. Pada setiap cuplikan konsentrasi logam berat sudah melampaui standar baku mutu. Berdasarkan *Sediment quality guideline values for metal and associated level of concern to be used in doing assessment of sediment quality* tahun 2003 standar logam berat dalam sedimen untuk Besi (Fe) ≤ 20.000 ppm, Mangan (Mn) ≤ 460 ppm, Tembaga (Cu) ≤ 32 ppm, Timbal (Pb) ≤ 36 ppm dan Seng (Zn) ≤ 120 ppm. Dan unsur yang terkandung pada setiap cuplikan yang lebih dominan adalah Unsur Besi (Fe) berturut-turut 52,33 %, 50,33 %, 42,36 %, 43,28 % dan 50,71 %.

Kata kunci : Logam berat, sedimen, XRF, Sungai Tanoyan

ABSTRACT

Faradita Goma. “The analysis of Heavy Metal on Sedimen at Tanoyan River by using X-Ray Flourescence.” This research aimed at investigating the types of heavy metal and what elements are contained in sediment of Tanoyan River. The samples were 5 point shots T1, T2, T3, T4 and T5 in form of sediment to analysis result showed that there was heavy metal in each shot. The analysis result showed that heavy metal and constructed elements in each shot T1, T2, T3, T4 and T5. T1 shot gained (Fe) as 523300 ppm and (Mn) as 9700 ppm. T2 shot gained (Fe) as 503300 ppm, (Mn) as 8200 ppm and (Zn) as 300 ppm. T3 shot gained (Fe) as 423600 ppm, (Mn) as 5600 ppm and (Zn) as 200 ppm. T4 shot gained (Fe) as 432800 ppm, (Mn) as 7900 ppm, (Zn) as 1000 ppm, (Cu) as 800 ppm, and (Pb) as 1100 ppm. T5 shot gained (Fe) as 500700 ppm, (Mn) as 100 ppm, (Zn) as 900 ppm and (Cu) as 900 ppm. the concentration of heavy metal in each shot was exceeding the quality standard. According to *Sediment quality guideline values for metal and associated level of concern to be used in doing assessment of sediment quality* in 2003, the heavy metal standard in sediment for (Fe) was ≤ 20.000 ppm, (Mn) ≤ 460 ppm, (Cu) ≤ 32 ppm, (Pb) ≤ 36 ppm and (Zn) ≤ 120 ppm. The most dominant elements in sedimen were Iron (Fe) 52,33 %, 50,33 %, 42,36 %, 43,28 % and 50,71 %.

Keywords : Heavy Metal, Sediment, XRF, Tanoyan River