

ABSTRAK

PENENTUAN KANDUNGAN LOGAM BERAT Pb, Cd, DAN Mn PADA SEDIMENT MUARA SUNGAI WAY KUALA KOTA BANDAR LAMPUNG

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Telah dilakukannya penentuan kandungan logam berat Pb, Cd, dan Mn pada sedimen yang diperoleh dari Muara Sungai Way Kuala, Kota Bandar Lampung. Sampel yang diambil berasal dari 9 titik dan pengukuran logam berat Pb, Cd, dan Mn pada air serta pengukuran dengan parameter pH, Suhu, dan Kekeruhan sebagai data penunjang. Preparasi sampel dilakukan dengan cara destruksi basah dan dianalisis menggunakan Spektrofotometer Serapan Atom (SSA). Hasil analisis pada sampel sedimen menunjukkan bahwa kadar logam Pb antara $15,777 \pm 0,310$ ppm - $25,809 \pm 0,667$ ppm, logam Cd antara $2,135 \pm 0,051$ ppm - $2,594 \pm 0,033$ ppm, dan logam Mn antara $118,946 \pm 0,905$ ppm - $164,439 \pm 2,849$ ppm berada di bawah ambang batas yang telah ditetapkan *National Sediment Quality Survey USEPA (2004)*. Hasil analisis kandungan logam Pb, Cd, dan Mn pada Air berturu-turut 10,22 ppm; 0,92 ppm; dan 63,06 ppm berada di atas baku mutu yang ditetapkan oleh Permenkes RI No. 32 Th 2017 serta pengukuran pH pada air didapatkan sebesar 7,2 dengan suhu sebesar 28°C , dan kekeruhan sebesar 23 NTU dimana kekeruhan Muara Sungai Way Kuala melebihi batas standar yang ditetapkan (Permenkes No 492 Th 2010) nilai standar kekeruhan pada air minum yaitu 5 NTU, pH 6,5-8,5 dan Suhu $\pm 3^{\circ}\text{C}$ dari suhu udara.

Kata Kunci: Logam berat, Pb, Cd, Mn, Sedimen dan air, Muara Sungai Way Kuala

ABSTRACT

DETERMINATION OF HEAVY METAL CONTENT Pb, Cd, AND Mn IN SEDIMENTS OF THE WAY KUALA RIVER Estuary, BANDAR LAMPUNG CITY

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Determination of the heavy metal content of Pb, Cd, and Mn in sediments obtained from the Way Kuala River Estuary, Bandar Lampung City. Samples were taken from 9 points and measurements of heavy metals Pb, Cd, and Mn in water as well as measurements with parameters pH, Temperature, and Turbidity as supporting data. Sample preparation was carried out by wet digestion and analyzed using Atomic Absorption Spectrophotometer (AAS). The results of the analysis on sediment samples showed that the levels of Pb metal were between $15,777 \pm 0.310$ ppm - 25.809 ± 0.667 ppm, Cd metal was between 2.135 ± 0.051 ppm - 2.594 ± 0.033 ppm, and Mn metal was between 118.946 ± 0.905 ppm - 164.439 ± 2.849 ppm. the threshold set by the USEPA National Sediment Quality Survey (2004). The results of the analysis of the metal content of Pb, Cd, and Mn in water were 10.22 ppm, respectively; 0.92 ppm; and 63.06 ppm are above the quality standard stipulated by the Minister of Health of the Republic of Indonesia No. 32 Year 2017 and measurement of pH in water was obtained at 7.2 with a temperature of 28°C, and turbidity of 23 NTU where the turbidity of the Way Kuala River Estuary exceeds the standard set limit (Permenkes No. 492 Year 2010) the standard value of turbidity in drinking water is 5 NTU , pH 6.5-8.5 and temperature ±3°C from air temperature.

Keywords: Heavy metal, Pb, Cd, Mn, Sediment and water, Way Kuala River Estuary.