ABSTRAK

Pencemaran logam menjadi suatu masalah yang sangat mengancam bagi lingkungan perairan. Hal ini, diduga karena logam berat susah hancur dan akan terakumulasi di perairan. Salah satu jenis cemaran di sedimen perairan berasal dari kegiatan antropogenik ataupun industri. Wilayah pesisir Kali Ijo diduga terkontaminasi oleh logam berat, karena banyak kegiatan antropogenik di daerah tersebut. Penelitian ini dilakukan untuk mengukur kandungan Cr^{6+} di sedimen, serta mengetahui tingkat pencemaran berdasarkan indeks EF, CF, Igeo di perairan Kali Ijo, Kecamatan Ayah, Kabupaten Kebumen. Metode yang digunakan untuk menentukan stasiun pengambilan sampel yaitu *purposive sampling*, metode analisis sampel logam Cr^{6+} menggunakan UV-VIS, sedangkan Fe menggunakan FAAS, dan untuk menjelaskan tingkat pencemaran dengan metode deskriptif. Hasil kandungan Cr^{6+} berkisar antara 20,29 – 33,28 mg/kg, berdasarkan indeks EF dikategorikan tidak ada pengayaan, indeks CF dikategorikan terkontaminasi rendah, dan indeks Igeo dikategorikan tidak tercemar. Kesimpulan dari penelitian ini yaitu kandungan logam di perairan Kali Ijo tergolong tercemar sedang menurut US-EPA dan berdasarkan indeks tingkat pencemaran di perairan Kali Ijo tergolong tidak tercemar.

Kata kunci: *Logam berat, Indeks pencemaran, Perairan Kali Ijo, Pencemaran*

ABSTRACT

Metal pollution is a very threatening problem for the aquatic environment. This is because heavy metals are difficult to disintegrate and will accumulate in the water. One type of contamination in aquatic sediments comes from anthropogenic or industrial activities. The coastal area of Kali Ijo is suspected to be contaminated by heavy metals, due to many anthropogenic activities in the area. This study was conducted to measure Cr6+ content in sediments, and to determine the level of pollution based on the EF, CF, and Igeo indices in the waters of Kali Ijo, Ayah Subdistrict, Kebumen Regency. The method used to determine the sampling station is purposive sampling, the method of analyzing Cr6+ metal samples using UV-VIS, while Fe uses FAAS, and to explain the level of pollution with descriptive methods. The results of Cr6+ content ranged from 20.29 - 33.28 mg/kg, based on the EF index is categorized as no enrichment, the CF index is categorized as low contamination, and the Igeo index is categorized as unpolluted. The conclusion of this research is that the metal content in Kali Ijo waters is classified as moderately polluted according to US-EPA and based on the index of pollution level in Kali Ijo waters is classified as unpolluted.

***Keywords**: Heavy metals, Pollution index, Kali Ijo Waters, Pollution*