

ABSTRACT

Establishment of industry in Kaligarang River area causing environmental pollution one of them heavy metal. Research on the distribution of heavy metals used Wenner Configuration Geolistrik Method to determine the existence of under surface pollutants using resistivity cross-sectional image and AAS (Atomic Absorption Spectrophotometry) Test to find heavy metal Pb seeps using well water samples and river water residents. Geolistrik data retrieval and AAS test were conducted at Tanah Mas and Semarang Indah area.

In each field A (Tanah Mas) and B (Semarang Indah) have 3 parallel trajectories. In field A the first path until the third trajectory is predicted as clay with resistivity value between 0.00844 Ω m to 15.75 Ω m at a depth of 0.5 meters to 6.91 meters. Pollutants can be predicted with a low resistivity value, for path A of the identified pollutant with a resistivity value between 0.00844 Ω m to 2.21 Ω m. At location B the first to third trajectory is predicted as clay with resistivity value between 0.037 Ω m to 9.68 Ω m at a depth of 0.5 meters to 6.91 meters. Pollutants at location B were identified with a resistivity value between 0.037 Ω m to 2.81 Ω m. Based on AAS test which has been done at 8 point location of water and river sampling, there are only two locations that indicate the presence of heavy metal Pb that is the well water of citizen at location A third point and river water sample at location B with concentration value 0,030 mg / L and 0.072 mg / L, so it can be concluded that there is no Pb heavy metal seepage in the northern residential area.

Keyword : *River kaligarang, resistivity, wenner configuration, AAS test*