



THESIS

**DETERMINATION OF HEAVY METALS (Pb, Zn, Cd, Cu) OF
SEDIMENT COASTAL URBAN AREA, SEMARANG INDONESIA**

By:

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Submitted as one of the requirements to achieve the Master Degree

At the Master Program, Diponegoro University

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APPROVAL

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Approved

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ABSTRACT

This research purposed to find the concentrations of heavy metals (Cu, Zn, Pb, Cd) pollutants in coastal sediment, Semarang, to find relationship between the heavy metal concentration and external environment based on the result of test that will be obtained from costal sediments samples, to make recomendation about pollution and change that occurs on the state of the environment in the urban catchment, creating databae on pollution control in the region and in the future to maintain biodiversity (to give the industrial activities-pollution permits-by official bodies for the protection of the environment in the state).

This research will be conducted in 2017 with the location of sampling and water quality measurement conducted at Usman Janatin Street, Semarang. The sample analysis will be conducted at the Diponegoro University Integrated Laboratory.

Based on the result and analysis, the conclusion in this research as follows: (1)There is relationship between levels of heavy metals and external environment. The relationship is positive, it means the higher levels of heavy metals, the external environment will be more polluted. The lower levels of heavy metals, the external environment will be low polluted. (2) The internal levels of coastal sediment can be used as an index to infer the state of the environment. (3) This heavy metals determination tool can be used to support policy and decision-making.