

## **ABSTRACT**

*Laundry wastewater comes from fabric softeners and detergents, which are not environmentally friendly materials, so they must be treated before disposal into the environment. This causes the high value of TDS (Total Dissolved Solid), pH and turbidity to exceed the quality standards issued by the government regarding Wastewater Quality Standards for Laundry Business and / or Activities. In this study, two wastewater treatment methods were combined, namely coagulation and filtration. The coagulant used was Calcium Oxide (CaO) by varying the mass (5, 10, 15, and 20) grams. Then filtered with variations of Zeolite, Active Carbon and Silica Sand. Parameters analyzed were Total Dissolved Solid (TDS), pH and turbidity. The result obtained showed that the variation of the mass of CaO 5 grams and the combination filter with the order of zolite- active carbon – silika sand was able to reduce TDS and pH were 87,81% and 73,18%, and the best result for reduction in tubidity was in the 20 grams CaO and the combination filter with the order of zolite- active carbon – silika sand decreased by 99,96%.*

*Keyword: Laundry Wastewater, Coagulation, Filtration, TDS, pH, Turbidity*