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## Resident Time Determination of IPAG60 in Order to Increase Efficiency of Drinking Water Treatment Plant for Peatland Area

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The majority of areas in Riau Province and Midle Kalimantan Province have the land with peat surface water. The characteristics of the peat water are: low pH levels (2-4) that is highly acidic; high levels of organic; high levels of iron and manganese; yellow or dark brown. This kind of surface water is basically not suitable as raw water for drinking water. Compared with other surface water that is fresh water, the water from the turf needs to be processed specifically by adding stages in the process. In order to improve the efficiency of water treatment plant, it would require a study to determine the resident time of IPAG60. Li tracer will be used in this study for the reason of availability, accuracy and easyness. Peat water treatment technology that has been established in previous studies allows the peat areas have peat water treatment facility for drinking water supply. The implementation and testing of the water treatment facility is limited in the area of Katingan Distric, Central Kalimantan province and Bengkalis Distric –Riau Province, meanwhile, a lot of territory in some areas in Indonesia, especially Sumatra and Kalimantan, which has a clean water source issues. Implementation of this technology in the wider area is necessary to support the increase in water services in the region. The quality of peat water and clean water (treated by IPAG) indicate that the IPAG can improve peat water quality (class C) into clean water quality (class A).

Key words : resident time, peat water, IPAG60, water quality, efficiency

### Country/Organization invited to participate

Indonesia

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