

## ABSTRACT

The analysis of natural tritium contents in groundwater of Semarang regency has been done. The analysis was carried out with LSC PACKARD 2000 CA/LL and enrichment using *benzene synthesizer Task Inc., USA* for sample pretreatment. The optimal condition could be achieved if a pico flour scintillator used with the volume ratio of samples H<sub>2</sub>O and pico flour is 10:10. Results shows that the activity of Manyaran area is  $33.80 \pm 7.15$  TU and Semarang center is  $28.39 \pm 8.78$  TU, so the age groundwater of Manyaran area is younger than Semarang center.



## INTISARI

Telah dilakukan analisis kadar tritium pada airtanah di beberapa lokasi di Semarang menggunakan pencacah kelip cair (*Liquid Scintillation Counter*) PACKARD 2000 CA/LL. Sebelum pencacahan, cuplikan airtanah diperkaya lebih dahulu dengan *benzene synthesizer Task Inc., USA*. Dari percobaan diperoleh hasil optimum pada perbandingan cuplikan airtanah dan pengelip (pico fluor) 10:10. Kadar tritium hanya terdeteksi pada daerah Manyaran dan Semarang kota dengan hasil masing-masing  $33,80 \pm 7,15$  TU dan  $28,39 \pm 8,78$  TU. Data tersebut memperlihatkan bahwa airtanah di Manyaran lebih muda dibanding airtanah di Semarang kota.

