

**DETERMINATION OF HEAVY METALS AND WATER QUALITY ANALYSIS OF
GRAVITY WATER AT KG BUKIT BENDERA AND KG TAMALANG, KOTA
BELUD**

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ABSTRACT

Inland ground and surface water are globally important drinking water sources, which are influenced by natural and anthropogenic processes. The consumption of contaminated drinking water is one of the major causes of mortality and many severe diseases. The purpose of this study was to determine the concentration of lead (Pb), copper (Cu), chromium (Cr) and cadmium (Cd) in gravity water at Kg Bukit Bendera and Kg Tamalang, Kota Belud. This study was also aim to determine the quality of gravity water as a source of drinking water supply in the two study areas. The study includes measurement conducted directly in the fields and laboratory analysis. The determination of the concentration distribution of selected heavy metals was based on method using inductively coupled plasma optical emission spectrometry (ICPOES). The results showed that pH value, turbidity, total dissolved solids, total suspended solids, concentration of copper and chromium were below the standards set. However, dissolved oxygen, BOD and concentration of cadmium did not meet the standards set by the country of Malaysia, the WHO and the EU. Therefore, gravity water in the two study areas has to go through water treatment process before being conveyed to the users and used as drinking water