

Water Quality of Outdoor Household Water Tank

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor in Science (Hons.) Biology
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

JANUARY 2017

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ABSTRACT

Water Quality of Outdoor Household Water Tank

Water tank is widely used in all countries as water storage tools to keep clean water. Exposed water tank may give harmful effects due to weathering. Trace elements such as chlorine, phosphate, nitrate that came from the tank may diffuse into the water and infestation of microorganism carried by insects that inhabit the water tank could cause a huge problem to the consumers. The aim of this study was to detect dissolve trace metal from outdoor household water tank and to screen for potential harmful bacteria from water sample in outdoor household water tank. The quantity of trace nitrate and phosphate was measured by using UV-Vis spectroscopy while chlorine was measured by using titration method. In this study, the result showed the water sample contained high concentration of chlorine compare to standard drinking water by Ministry of Health, meanwhile, concentration of nitrate and phosphate were in a safe amount indicated by Ministry of Health. The probability of bacteria in the water sample was categorized as *Shigella spp.* .