**Urban/Suburban Groundwater Pollution in Greater Accra Region and Its Health Implications**

**Ansah, Yaw Otu**

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## ABSTRACT

Groundwater samples in the Taifa area of the Ga East District in the Greater Accra Region were sampled and analysed for physicochemical and bacteriological quality. Physicochemical properties of the samples were generally satisfactory and within the World Health Organization guideline values. However, Lead and Manganese concentrations posed health treats. The concentration of Lead was generally higher than the WHO guideline values of 0.01mg/l at all the sites for at least one month during the sampling period; the highest concentration obtained was 0.202mg/l. Manganese levels also exceeded the WHO guideline value of 0. 40mg/l at three(3) sampling sites.

Generally, the bacteriological quality of the groundwater samples collected were beyond the WHO standard of zero counts per 100ml of sample. One sample however, had zero counts for all the four (4) micro organisms tested for (Total Coliforms, Faecal Coliform, *Aeromonas spp* and *Pseudomonas aeruginosa*). The highest microbial contaminants were from *Pseudomonas* (up to 7700 counts per 100ml of sample). Similarly, but to a lesser extent, the samples had counts of *Aeromonas*, Total Coliforms and Faecal Coliform in decreasing order of number of counts.

This shows that the groundwater in the region is susceptible to microbial contamination, and was an indicator of the general unhygienic state of various groundwater bodies within the community. Drinking water from these sources without treatment is thus unsafe. The World Health Organization prescribes that Total and Faecal Coliforms should not be detectable in any 100 ml sample of drinking water, groundwater in the community should therefore be treated before consumption.

Data on the purchase of anti-diarrhoeal drugs suggested a high patronage of anti-diarrhoeal drugs and this could be a direct consequence of the poor bacteriological quality of groundwater in the community.

**SUPERVISOR(S)**

**Prof. Quakyi I.A.**

**Dr. Asare, Ansa O.D.**

**Dr. Ampofo, J. A.**