LEVEL OF pH IN DRINKING WATER OF AN OIL AND GAS PRODUCING COMMUNITY AND PERCEIVED BIOLOGICAL AND HEALTH IMPLICATIONS

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ABSTRACT

pH level of drinking water supply in Omoku, an oil and gas producing community and headquarter of Ogba/Egbema/Ndoni local Government area (ONELGA) of Rivers state, Nigeria was ascertained using standard method. Result shows that pH ranged from4.74$\pm$0.49 in private borehole to 6.40$\pm$0.42 in rain water. The order of decreasing pH level was private borehole<public borehole<Stream water<Well water<Rain water. Although all water sample fall within the acidic range, borehole water was more acidic than stream. The result of the study showed that the five water samples did not exceed the specific standard of W.H.O for a safe drinking water quality. Analysis of variance indicated lack of significant difference between the various drinking water samples studied ($p>0.05$).Chi square statistic indicated significant negative correlations of positive and negatively responses on the perceived causal factors and impacts of low water pH ($p<0.05$).The observed pH values of Omoku community's drinking water is an indicator of potential health risk and loss of biodivserssity due to acidification of soil and aquatic habitats. Water supply therefore should be treated before distributing for human consumption to ascertain quality supply

Keywords: pH, water, acidity, biological, health.