Abstract

The Kenyan population is growing at an alarming rate which has led to increase in demand for resources such as energy, food, and infrastructure. The discovery of coal in Mui Basin of Kitui County is so important in the realization of Kenya's blue print vision 2030. Coal is a major source of energy, and is composed of Carbon, Hydrogen, and Oxygen, with lesser amounts of Sulfur and Nitrogen. Despite the high expectation from coal, the extraction of coal and its subsequent use as a fuel source of energy comes with a myriad of challenges which among them are the emissions of sulphur oxides from combustion of sulphur in coal. This study aimed at assessing the physiochemical status of the underground water utilized for domestic purpose in the coal rich Mui basin block D. The results of the minerals content were below detectable limits with only Magnesium being in the range of 4.14-50.18 mg/l. Since coal is a major environmental pollutant from the exploration, mining as well as utilization, this study recommend the application of modern and clean coal technology in order to reduce the emission of poisonous material that pollute the water bodies and the environment in general.