**Table 3** Percentage exceedances of elements with health implications in Ghanaian waters compared with WHO guideline values (Smedley et al. 2002)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Element | WHO Accepted values (mg/l) | Max-Measured (mg/l) | n | n>WHO Accepted value | % Exceeding Accepted Value | Remarks |
| **F** | **0.5** | **4.0** | **185** | **43** | **23.2** | **Skeletal Fluorosis** |
| **U** | **0.002** | **0.032** | **185** | **18** | **9.7** | **Kidney Damage** |
| **NO3-N** | **11.3** | **33.0** | **185** | **12** | **6.5** | **Transform hemoglobin to methemoglobin that lacks the oxygen-carrying ability of hemoglobin** |
| **NO2-N** | **0.06** | **11.6** | **185** | **11** | **5.9** |
| **As** | **0.01** | **0.434** | **185** | **5** | **2.7** | **Cancer, kidney, bladder diseases and skin lesions.** |
| **B** | **0.5** | **0.13** | **185** | **0** | **0** |  |
| **Ba** | **0.7** | **0.59** | **185** | **0** | **0** |  |
| **Cd** | **0.003** | **0.0002** | **185** | **0** | **0** |  |
| **Cr** | **0.05** | **0.010** | **185** | **0** | **0** |  |
| **Cu** | **2.00** | **0.030** | **185** | **0** | **0** |  |
| **Mn** | **0.50** | **0.406** | **185** | **0** | **0** |  |
| **Mo** | **0.07** | **0.015** | **185** | **0** | **0** |  |
| **Ni** | **0.02** | **0.004** | **185** | **0** | **0** |  |
| **Pb** | **0.01** | **0.004** | **185** | **0** | **0** |  |
| **Sb** | **0.005** | **0.0017** | **185** | **0** | **0** |  |