

Radon Concentration Measurements in the Drinking Water Supply of Nablus City, Palestine

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Abstract:

Radon gas is the second cause of lung cancer and it is found naturally in rock, soil, and water. In this work, radon concentration measurements in water samples, collected from the main sources which supply Nablus city, are performed. It is found that the value of radon concentration in these sources ranged from 2.3 to 23.4 Bq/l with an average of 6.9. 4.6 Bq/L and 9.5 Bq/L are the means for springs and wells respectively. Concentrations in tap water, from seven regions in the city, ranged from 0.9 to 1.3 Bq/l with an average of 1.0 Bq/l whereas old city samples gave an average of 2.3 Bq/l.

These results show that radon concentrations in wells and springs that supply Nablus city are below the United States environmental protection agency Maximum Contaminated Level (MCL) of 11 Bq/l except for Badan well. The low concentrations in tap water pose lesser risk from exposure to radon.

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