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**HALL – C [Ths04]-Environmental Geology**

**Hydrogeochemical Characteristics of Acidic Water Sources  
around Can Region, Biga Peninsula, NWTurkey**

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Acid rock drainage (ARD) is one of the major sources of water pollution in some countries. Densely generation of ARD have been seen around Can Region (Biga Peninsula-NW Turkey) due to altered (silicification, argillic alteration) volcanic rocks which contain sulfide minerals and specially pyrite and there is inadequate availability of neutralizing carbonate minerals. Forty water samples (including 17 drilling, 5 drinking water, and 18 spring water) were collected from 2011 to 2012. The result show that pH of water samples is lower than 5 in most part of study area. Sulfate is the dominant anion and sodium-calcium is the dominant cation in all water samples. Total aluminium, iron and arsenic levels of water samples were as high as 32473, 5206 and 387 µg/L, respectively. Chemical analyses revealed that metals were exceeding the maximum allowable limits depicted in the national and international standards for drinking water quality. The results show that, ARD pose great risk on human health and environment. Such water should be treated for metal removal before using it for domestic applications.

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