



Antarctic research – geophysical mini-profiling for rocks differentiation based on radioactivity and magnetic susceptibility

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Abstract: The paper presents the general results and some illustrative data about the measured radioactivity (RA) and magnetic susceptibility (MS) of almost all rocks formations located around the Bulgarian Antarctic Base (BAB) “St.Kl.Ohridsky” at the Livingstone Island – South Shetlands – Antarctica. It is clearly presented that the in situ measurements following certain methodic with the selected and reliable equipments can serve as differentiation tool of the different rock formations directly on the field. The surprising result was the establishment of the rock formation (Meyers-Bluff complex) with an increased radioactivity over three levels of the background. The laboratory tests of the selected samples show that this increment is due to the increased content of K^{40} and Th^{232} .