THE PERMAFROST IN THE SEYMOUR ISLAND (ANTARCTICA): TEMPERATURES AND GEOPHYSIC SOUNDINGS

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The temperatures from the air, from the active layer and from the permafrost upper-part were recorded to a depth of 2.10m. In Seymour Island (Antarctica) during the months of November and December 1987. The daily temperature variations are more noticeable in the soil first 10cm. At a greater depth temperatures are gradually less perceptible. The lowest recorded temperature was -7ºC at the botton of the drilling. The thermic characteristics are considered valid for all of the plateau area due to the physical and exposure homogeneity.The Pwaves propagation speed was determined through a seismic sounding: 183m/s. in the active layer and 2778m/s in the permafrost upper part. Four vertical electric soundings were also done with Schlumberger configuration electrodes (AB=800m.). Four zones with different resistivity and thickness ranges were determined. The zones are tentatively attributed to the permafrost different physical stages.This paper does not attempt for a definitive interpretation, but it outlines possibilities that could originate the mencioned diferences.