Application of Geophysical in Salving Some Problems in Nickel Mining.

Ransay, A. J. H. Republic of Cuba . Ministry of Basic Industry. Mining Company of Oriente.

After investing a great deal of capital in prospecting and exploration with its respective calculations of reserves and possible behave of the mineral, which in different from has been planned due to problems with the reserves its obvious that the nickel industry is urged to find methods, alternatives and methodologies in order to probe the physical - geological and technical irregularities of the nickel deposits. These methods, alternatives and methodologies should provide geologist and miners with the capacity to determine the needed patterns to characterize the deposits the mineral and its behavior in the industry and to for etell percentage on nickel + cobalt prospecting. Quimical geological and mining irregularities in rocks of weathering crust, provoke variations in its physical characteristics that can be detected easily with the use of geophysical methods, of surface, of laboratory and shafts.

These variations on the physical fields probe perfectly, the thickness the unstructured ocres the power of the ocres and the relief (contact between ocres and hard rocks).in some instance the crust is complete and well developed the ocres can be separated with pellets and final ocres from the initial. It also us to determine the contents of Fe, Ni, Co moisture in the rocks magnetic and the horizontal and vertical direction to locate tectonic areas of the crust weathering areas, crocked and broken in the crust, etc. All these physical parameters are important to achieve the calculation of the mineral reserves that obtained thrust drilling some deposits due to the variability of parameter mentioned before, geologist and miners are urged to density the drilling net increasing the cots.

The application of these geophysical methods is cheap fast and efficient way of getting useful of the information for geologist and

miners in geometric waste horizontal of the debris layer of characterization of nickel deposits.

In this paper are shown some examples of probing of difficulties of physical geological and mining parameters as well as the facing of Fe, Ni and Ca contents in the deposits of Cuban Oriental. There's also an analysis of the set of geophysical methods (aerial, of surface, of laboratory and shafts) that were used. Besides the net of investigation used in evaluated.