



Metal Concentration in Artana Ore Flotation Products

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Abstract. In this scientific work, it has been discussed the problem of distribution of elements like Cu, Cd, Bi, Ag and Au during the ore flotation process from Artana mine in the flotation “KIZHNICA” in Kizhnica. Samples have been taken for ten days in row (15-24/10/2009) starting from the entering ore (after the mill with balls), Pb concentrate, Zn concentrate, and waste material. After physical preparation of samples, their chemical analyzing is done with the complexometric method, polarographic, AAS and gravimetric method. It is done also the balancing of metals (Pb, Zn, Cu, Cd, Bi, Ag and Au), and from the obtained results which are shown in the tables 1,2,3 and 4 it is seen the concentration of elements in analyzed materials, distribution, their participation and balance. Meanwhile in the table is seen also their recovery, which is not considered as satisfactory and their losses are relatively high in waste. Therefore, there must be undertaken further research for improvement of their exploitation by applying changes in the quantity of flotation reagents and on milling the lead-zinc ore, and possibly computerizing the process.

Keywords: *ore, concentrate, waste, analysis, distribution, losses.*

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