concentration in concentrate amounts to 1 4%, zinc – 1 8% but concentration in tailings will be at the level of flotation tailings It will make it possible to send about 3 million tons of concentrated ore from Uchkulach dumps to the processing plant of Almalyk Mining Complex and produce from it 42 thousand tons of lead and 54 tons of zinc

Higher quality of currently mined ore and shift from unprofitable mining operation to profitable one have been reached by X-Ray – Radiometric concentration because lead content in concentrate increased by means of ore separation from 1 5-1 8 till 3 0% and zinc – from 1 6-1 9% till 3 1% Output of concentrated product is expected to be at 45-50% level with 90% lead and zinc recovery from it, and mineral contents in concentration tailings will correspond with their contents in flotation tailings

The results obtained served as sufficient grounds for making decision on development of Feasibility Study for construction of Ore Separation Complex designated for concentration of lead-zinc ore of Uchkulach Deposit as well as Ore Control Station designated for preliminary large-portion sorting of initial mined mass for the purposes of decreasing of its volume delivered to ore preparation and separation

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ORE CONTROLLING X-RAY - RADIOMETRIC COMPLEX FOR TRUCK-BY-TRUCK SORTING OF GOLD ORE

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Ore Controlling X-Ray – Radiometric Complex (RKS-A) is used for large-portion sorting of gold bearing ores at Kokpatas Deposit

The paper describes the principles of X-Ray – Radiometric presorting of mined mass by portions consisting of truck body volume into the process ore classes according to the gold content and the ore contrast The description of RKS-A process flowsheet and the reasons of use of different distinctive features are given in the paper Special attention is paid to software of RKS-A and irradiating - measuring device Also data on technical and economic effectiveness of ore presorting by means of RKS-A are given there

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X-RAY – RADIOMETRIC UNITS FOR SMALL PORTION AND PARTICLE SEPARATION OF ORES

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Current conditions of mineral-raw material base of gold deposits of Navoi Mining & Metallurgy Complex require that constantly increasing volumes of poor and low grade ores being complex by their substantial composition is involved into production Simultaneously scope of mining production has been expanding, intensive methods of mining works (powerful mining equipment, synchronized –on-line production technologies) have been introducing All the above results in increase of excavated volumes of mined ore-rock mass and respectively leads to more dilution of ore by barren rock and lower selectivity of mining