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Overview of a quartz sand deposit and processing plant for the future process alteration

Tamara Kuzmanić¹ and Gordan Bedeković²

¹University of Ljubljana, Faculty of Civil and Geodetic Engineering, Slovenia

²University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Croatia

Quartz sand deposit Ravno is the biggest quartz sand deposit in the Dolenjska region in Slovenia with an area of 1.25 km². Quartz sand at the site is selectively excavated using mechanical methods. Presently, at the processing plant near the deposit, the main final mineral processing technique is flotation. Prior to the flotation, quartz sand undergoes classification and attrition. Final products produced at the plant are natural sand, washed sand and floated sand.

Recently, mining companies have been turning to simpler processing systems, such as gravity concentration, due to the price increase of floatation reagents, simplicity of the process and lower environmental impact.

Overview of the deposit and current methods used in the processing plant are presented, as a prologue to further work on the process alteration possibilities – a change from flotation to gravity concentration.