

# CONCERNS FOR THE IMPACT OF THE MINING PLANTS ON THE WATER QUALITY OF BISTRITA RIVER

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## Abstract

This paper presents the results of the monitoring water quality on Bistrita River, affluent of Siret River. Water is an important element for life and development of human communities. For a more accurate assessment of the Bistrița River water quality there is required a monitoring and a physico – chemical verification of the indicators not to exceed the quality standards. The chemical composition of water resulting from mining operations varies depending on the nature of the terrain they cross. Contaminated water is characterized in particular by the presence of metal ions arising from the deterioration of polymetallic sulfides, heavy metals. Mining is an important risk factor on water quality. The closing of mines in the upper sector of the Bistrița River did not lead to eliminating sources of pollution, which is now a source of pollution and water quality are retained. Water undergoes a substantial reduction from its initial value due to its selfpurification capacity. Water samples used in this paper were taken from monitoring sections Bărnar, Bărnărel - Crucera, Cârlibaba and Argeștru. For these samples were measured several water quality parameters to meet water needs in agriculture. Analysis of these parameters of water quality is to achieve "good status" of water, as required by the Framework Directive, which has the following objectives: ensuring source water deficit areas, rehabilitation of centralized water and sewer towns and cities, improving water quality, protection of aquatic ecosystems, land and wetlands, flood and drought risk reduction, soil erosion and degradation torrent, potential water use in agriculture.

**Key words:** water quality monitoring, water pollution, pollution sources