



SURFACE WATER POLLUTION GENERATED BY MINING ACTIVITIES. CASE STUDY: ARIES RIVER MIDDLE CATCHMENT BASIN, ROMANIA

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Abstract

The Arieș River, due to its geographic position and its significance in the Mureș – Tisza Basin, has a major impact on environmental media, influencing their quality. In the Middle Catchment Basin the main industrial activity is mining, since the Roman times, when the first mines were opened. The mining operations in the region generated a severe pollution of all the environmental media.

The paper identifies the risk areas in the middle Aries River in terms of surface water pollution based on analyses performed in the autumn of 2006 and spring of 2007. The content of heavy metals has been analyzed in sampling points upstream and downstream of the main mining operations in the middle segment of the river. The results illustrate the fact that the waters generated from the mining sediments and storage facilities affect the ecosystem on significant surfaces after the closure of the mining exploitations, if not subjected to an appropriate management and to the best available technologies.

Key words: mining, water pollution, Arieș River

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