



*The impact of the mining
activity on the surface waters
from Baia Mare area*

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OBJECTIVE:

- **To determine the quality of the surface waters from the mining areas, located on the North-East and East side of Baia Mare.**

METHODOLOGY:

- From these areas there were taken water samples from eight distinct points, repeating this process in three different dates;
- The parameters taking into consideration were the pH, the redox potential (Eh), the electric conductivity (EC), the total of the dissolved solids (TDS) and the metal concentration (Cu, Zn, Fe and Mn);
- The measurement of electrochemical parameters was realised with the Consort C533 device;
- The metal concentration was determined with the flame atomic absorption spectrophotometer (AAS Analyst 700 Perkin Elmer equipment).

CONCLUSION

- ✓ **The surface waters within this area have a strong acidity, high metal concentrations, and the electrochemical parameters suffer important quality changes;**
- ✓ **The analyses of the electrochemical parameters and of the metal concentrations in the surface waters classify the rivers in classes of degraded (4th class) and poor (5th class) quality;**
- ✓ **The mining activity from Baia Mare has a significant impact on surface waters, recording low values of pH and high concentrations of TDS and metals.**

Thank you!

