



# MINING RISK ASSESSMENTS – VALEA SESEI TAILINGS POND, ROSIA POIENI, ROMANIA

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Optoelectronic Techniques for Environmental Monitoring 2010

### INTRODUCTION



#### **LOCALITATION:**

-NW of Metaliferi Mts. in the Western Carpathians; -administrative area of Lupsa village, in Alba county;

- basin of Aries river, tributary of the Mures.

#### Main risk:

• releasing significant amounts of waste, acid water and loaded with metal ions, which would reach the Aries River

## Methodology

•1. water exit from the spillway
channel ;

• 2. the Sesei valley upstream from the confluence with Little valley;

• 3. Little valley;

• 4. the Sesei valley downstream of the confluence with Little valley;

• 5. the Sesei valley about 1.5 km to the confluence with Aries river;

• 6. the Sesei valley 200 m upstream of the confluence with Aries river.

Taking samples dates: March 6<sup>th</sup> May 2<sup>nd</sup>

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### Results and discussions



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### Conclusions



Although water quality in the Sesei Valley is degraded, its impact on water quality of Aries is quite low it considering that there is a difference between the two flow rates sufficient to achieve water with a better dilution and so a better water quality.

• weather conditions can have some influence on concentrations of heavy metals, however it can be seen in the graphs that there is a correlation between samples analyzed in reducing concentrations in the two dates, even if weather conditions were different.