



## CANMET MINING AND MINERAL SCIENCES LABORATORIES

# Mine Waste Management



### Program objectives

The Mine Waste Management Program works with industry, governments and research institutions to develop and assess long-term, scientifically sound and sustainable options for the disposal, management and rehabilitation of mine wastes, including tailings, waste rock and treatment sludge. Experts provide environmental capacity building in the north and in developing countries. In addition, experts perform research related to mine waste management and the delivery of multistakeholder projects such as Green Mines-Green Energy and Metal in Soils.

### Expertise

The program relies on a team of internationally recognized scientists with expertise in advanced waste characterization, water treatment, geochemistry, soil science, waste management, acidic drainage and mine reclamation and decommissioning.

### Key research areas

#### Waste management

- water cover on reactive tailings
- recovery of metals from mine wastes

- disposal options for hydrometallurgical plant residues
- sludge stability, disposal, reuse and reprocessing options

#### Mine water treatment

- review of acidic drainage treatment and sludge management operations
- sulphate removal and total dissolved solids reduction
- projects on lime treatment optimization

#### Metal behaviour and stability

- mobilization, attenuation and transformation of arsenic and antimony
- molecular-scale characterization of arsenical minerals and compounds
- Metals in Soils Initiative

#### Mine reclamation

- Green Mines-Green Energy Initiative – energy crop production on mining lands
- mine waste management for the North
- environmental ore deposit models for the North

### Contact Us

This research is part of CANMET-MMSL's broader plan to foster sustainable growth in Canada's mining and mineral industry. To work with us, contact

[www.nrcan-rncan.gc.ca/mms-smm/tect-tech/index-eng.htm](http://www.nrcan-rncan.gc.ca/mms-smm/tect-tech/index-eng.htm)

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