

Wastewater Technology Centre (WTC)

(continued)

Technological expertise

The WTC consists of three research and three support divisions:

1. Biological processes
2. Physical/chemical processes
3. Residue management
4. Laboratory services
5. Computing and information
6. Support services

Scientists, engineers and various support staff in these divisions have unique research facilities consisting of a wide variety of wastewater and sludge treatment pilot plants, laboratories and offices. Emphasis is placed on developing bench scale and pilot scale processes utilizing industrial wastewaters, municipal and industrial sludges and other contaminated materials. Mobile pilot scale process units and laboratories are employed to facilitate field projects and demonstrations at locations across Canada.

Expert systems developed for the selection of treatment methodologies and in-plant process optimization is another important component; such systems offer tremendous potential for maximizing processing cost-efficiency while maintaining environmental quality control.

The area of advanced industrial materials development is also important for waste control and treatment; potential applications include landfill liners, waste stabilization and new types of membranes and coagulants for physical/chemical wastewater treatment.

Gold mill design expert system; membrane applications; liner technology; others

Products developed

Examples of products developed include:

- Oil-from-sludge technology
- Sludge conditioning controller
- Process audit technology
- Soil remediation criteria expert system (AERIS)

Services offered include advice in providing sampling protocols, data interpretation and quality assurance, and research is undertaken on analytical methods and enhanced sampling techniques.

Products in development

Biotechnology is the focus of much of the research and technology development currently being undertaken at the Wastewater Technology Centre.