



Trinity Consultants Canada is a leading environmental consultancy that brings together trusted advisors, scientists and engineers to help clients solve their most complex challenges. With deep local roots and the strength of a global organization, Trinity Consultants Canada delivers innovative, scientifically sound and future-ready solutions that help industry, government and Indigenous Communities navigate complex regulatory landscapes, secure project permits and approvals to achieve better environmental outcomes. They are internationally respected leaders with decades of proven expertise in Water & Ecology, Environmental Health and Safety (EHS), Built Environment and Life Sciences.

Our Water & Ecology teams are recognized leaders in environmental assessment, permitting and monitoring, offering key services to sectors including renewables, mining, ports and terminals, marine shipping, linear development, liquefied natural gas (LNG), ecological restoration, municipal wastewater, energy, and forestry.

Our Expertise

Trinity Consultants Water & Ecology provides cost effective geochemistry and metal leaching/acid rock drainage (ML/ARD) assessment services. We provide geochemical services for all stages of the mining life cycle, including geochemical baseline assessments for greenfield and brownfield projects, support to engineering designs, assistance with adaptive mine waste management throughout operations, prediction studies as part of site expansions and/or design of closure strategies, and specialized investigations at decommissioned sites. Our geochemistry studies are customized to focus on the specific needs of the project to assist with prediction, control, and management of mine site drainage. Through this approach, we develop 'fit-for-purpose' studies that satisfy technical and regulatory requirements while providing added-value by balancing practical and proven methods with innovative approaches.

Our Services

- ML/ARD prediction and assessment
- Mineralogy and solid-phase characterization
- Rock core, tailings, and mine rock sampling plan development and field implementation
- Laboratory programs: static and kinetic testing
- Mine rock and tailings field test program design, instrumentation, and monitoring
- ML/ARD management and mine waste monitoring plans



- Site-specific geochemistry operational procedure development
- Geochemical source term development
- Site-wide water balance and water quality modelling
- Geochemical speciation and reactive transport modelling
- Groundwater and pore water hydrogeochemistry
- Sediment geochemistry, sediment-water exchanges and diagenetic processes
- Treatment solids characterization
- Regulatory approvals and permitting support

CONTACT OUR TEAM!

For more information about how we can help your organization, please contact us.

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