

Environmental Geochemistry Services - Okane's Laboratory

- > Sample Receipt;***
- > Sample Preparation Including Drying, Splitting, Crushing, and Pulverising;***
- > Geological Logging;***
- > Partice Size Distribution (PSD; Sieve Analysis 5 or 14 Stages);***
- > Total Metals by Field Portable X-ray Fluorescence (XRF);***
- > Paste pH / Electrical Conductivity (EC), Net Acid Generation (NAG), Acid Neutralization Capacity (ANC), and Acid Buffering Characteristic Curve (ABCC);***
- > Shake Flask and Leachate Extractions;***
- > Free Draining AMIRA Leach Column Testing;***
- > Okane Advanced Customisable Leach Columns (ACLCs) for Long Term Analysis of Site-specific Conditions; and***
- > Flexibility to Accommodate R&D Projects.***

Integrated Environmental Geochemistry Services

- > *Development of Waste Rock and Acid and Metalliferous Drainage (AMD) Management Plans;*
- > *Water Quality and Solute Transport Modelling;*
- > *Integration of Acid Base Accounting (ABA) and Kinetic Column Leach Testing into Life of Mine Plans;*
- > *Three Dimensional Waste Block Modelling and Construction of the Mine Schedule of Waste Rock;*
- > *Calculating Advective and Diffusive Gas Fluxes into Waste Rock Structures and Cover Systems (Oxygen, Nitrogen, Carbon Dioxide);*
- > *Forensic Assessment of Historic Waste Rock Dumps and Tailings Storage Facilities (TSFs);*
- > *Rehabilitation Geochemistry;*
- > *Derivation of Long-term Acid Loads Based on Geochemistry Coupled with Gas Flux;*
- > *Design of Operational and Post Closure Treatment Strategies for AMD Impacted Waters (Active and Passive);*
- > *Geochemical Numerical Modelling;*
- > *Closure Planning Based on Geochemical and Geotechnical Modelling;*
- > *Stakeholder Engagement and Consultation;*
- > *Development of Conceptual Mine Site Geochemical Models Based on Water Quality and Mine Rock Geochemistry;*
- > *Interpretation of the Source and Fate of Aqueous Heavy Metals, Metalloids, and Radionuclides;*
- > *Geotechnical and Hydrogeological Characterization of Aquitards Using In Situ Methods;*
- > *Aqueous Geochemistry; and*
- > *Local and Regional Surface and Groundwater Instrumentation and Monitoring.*