

Cutting edge technology, adaptability, experience and diversity. This is what enables MEC International to deliver world class sustainable solutions to the mining industry. We deliver a broad range of services and advice, ranging from environmental permitting, laboratory testing, geomechanics engineering, advanced numerical modeling, water and tailings management to closure and reclamation. Our experienced and highly trained team will ensure you get the best advice, and the highest level of service.

Services through project life cycle

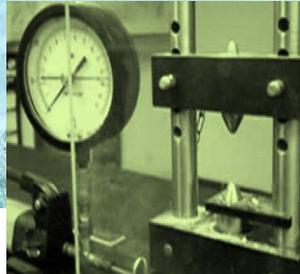
Geomechanics and Materials Testing

Sustainable environmental strategies

Advance Computer Modeling



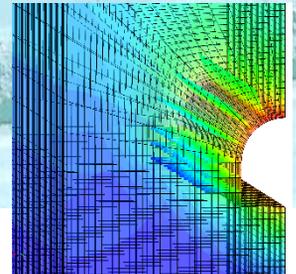
We are an international group that provides world-class solutions to your mining challenges. Our team includes leading experts in services ranging from permitting through feasibility, geotechnics, water management, tailings, air quality, remediation and closure.



MEC's laboratory experts closely integrate testing to provide material parameters that fit our client's engineering needs. Our specialized testing supports the complete characterization of a rock's physical composition, its mechanical, hydrological, and thermal behavior.



Our team is always up-to-date on environmental laws and requirements adopted by leading agencies. Our integrated approach, establishes the best strategy to minimize impacts and maximize benefits to both, your company and external stakeholders.



Our team is experienced with state-of-the-art modeling software to efficiently and accurately evaluate your project status, increase work efficiency and safety, as well as streamline and minimize costs to best serve your needs.

# Geomechanics & Materials Testing

Making sure your projects stand on safe and sound foundations

<b>Rock Properties and Strength Tests</b>	<b>ASTM</b>
Direct Shear – Intact, Sawcut or Natural Joint (up to 3 residual points)	D 5607
Direct Shear – Intact, Sawcut or Natural Joint (single points, peak and residual)	D 5607
Unconfined Compressive Strength (UCS) peak load only	D 7012, Method C
Unconfined Compressive Strength (UCS) stress-strain curve, E, $\nu$	D 7012, Method D
Unconfined Compressive Strength (UCS) E only	D 7012, Method D
Triaxial Compressive Strength, peak load only	D 7012, Method A
Triaxial Compressive Strength, with stress-strain curve, E, $\nu$	D 7012, Method B
Triaxial Compressive Strength, E only	D 7012, Method B
Unconfined/Triaxial Cyclic Compressive Strength	Modified D 7012
Indirect (Brazilian) Split Tensile Strength	D 3967
Direct Tensile Strength	D 2936
Point Load Test (per specimen)	D 5731
Sonic Velocities, unstressed conditions, with E, $\nu$ calculations	D 2845
Creep in Uniaxial Compression	D 7070 Method A
Creep in Triaxial Compression	D 7070 Method C
Rock Hardness by Rebound Hammer	D 5873
Schmidt Rebound Hardness	C 805
CERCHAR Abrasivity Index	D 7625
Thermal Properties Measurement (conductivity, thermal expansion, heat capacity, diffusivity)	D 5334 D 5335 D 4611 D 4612