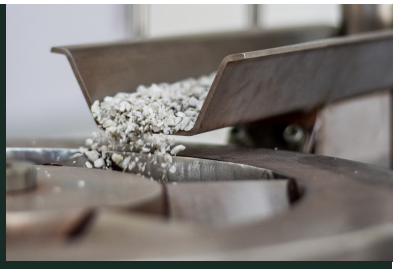
Geolabs Global

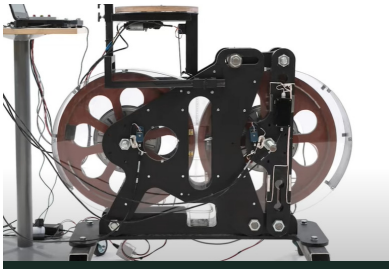
MINERAL TESTING & ANALYSIS

From mineral insight to better recovery.

Mineralogy. Comminution.
Metallurgical testwork.



SAMPLE PREPARATION



COMMINUTION



HEAVY LIQUID SEPARATION



GRAVITY SEPARATION

Laboratory insight for better decisions

Geolabs Global provides mineralogical, metallurgical and comminution testwork for mining and metals projects. From sample preparation to mineral characterisation and process testing, we help clients understand their material and plan the next stage of their project.

01 Sample preparation

Prepare representative material for testwork with crushing, splitting, milling, wet and dry screening, and pulverisation.

02 Comminution & geometallurgy

Characterise ore breakage, hardness and abrasion to inform grinding-energy estimates, circuit design and geometallurgical programmes.

03 Mineralogy & microanalysis

Identify minerals and understand their chemistry through X-ray diffraction (XRD), optical petrography and specialist microanalytical methods.

04 Metallurgical testwork

Evaluate separation and recovery options with flotation, gravity concentration, heavy liquid separation and gold leaching.

Your project. A focused test programme.

Share your material, objectives and timing. Let's define the next step.

Photography and SEM imagery from the Geolabs image archive.

The tests behind the insight

A focused overview of the methods available through Geolabs.

Comminution & geometallurgy

- Geopyörä rock breakage testing
- SMC and JK Drop Weight tests
- Bond ball and rod mill work indices
- Bond abrasion index
- Bond low-energy impact crushing work index

Mineralogy & microanalysis

- XRD: qualitative, quantitative and assay-validated analysis
- Clay speciation by XRD
- Optical petrography
- SEM, electron microprobe analysis (EMPA) and LA-ICP-MS

SEM, EMPA and LA-ICP-MS are facilitated through university or specialist laboratory partners.

Metallurgical testwork

- Froth flotation
- Heavy liquid separation (HLS)
- Shaking table and Knelson concentration
- Gold leaching: carbon-in-leach (CIL), direct cyanidation and intensive cyanide leaching

Flotation programmes cover lithium minerals, graphite, iron ore and sulphide/oxide ores.

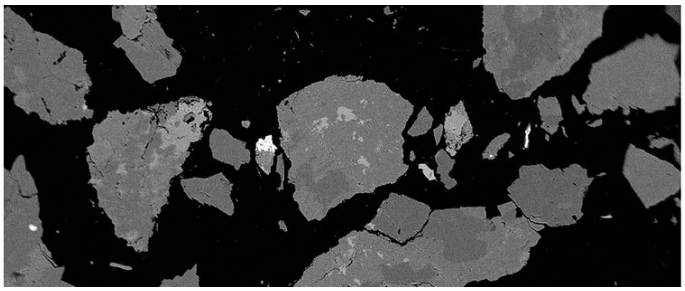
Materials & project support

Experience across lithium minerals, graphite, gold and silver, PGMs, chromite, iron ore, rare earths, columbite-tantalite and heavy mineral sands.

Additional support includes on-site sampling, verification of mineral products before shipment, training and technical support.



FROTH FLOTATION TESTWORK



SCANNING ELECTRON MICROSCOPY

Let's plan your testwork.

Send your sample type, target tests, sample quantity and timing through our online enquiry form.

geolabsglobal.com/contact-us

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