

Process Design and Metallurgy

Mineral Processing

Tetra Tech's metallurgical engineers have extensive experience in mineral processing and extractive (including pyro- and hydro-) technologies. These professionals direct metallurgical studies and process design from concept to implementation around the world.

We have experience working with virtually all minerals and commodities, including precious and base metals, ferrous metals, industrial minerals and mineral-derived chemicals, energy minerals such as coal and uranium, gemstones, rare earths, graphite, heavy mineral sands, and minerals as a source of fertilizers, as well as particulate recycling of eScrap and other post-consumer materials.



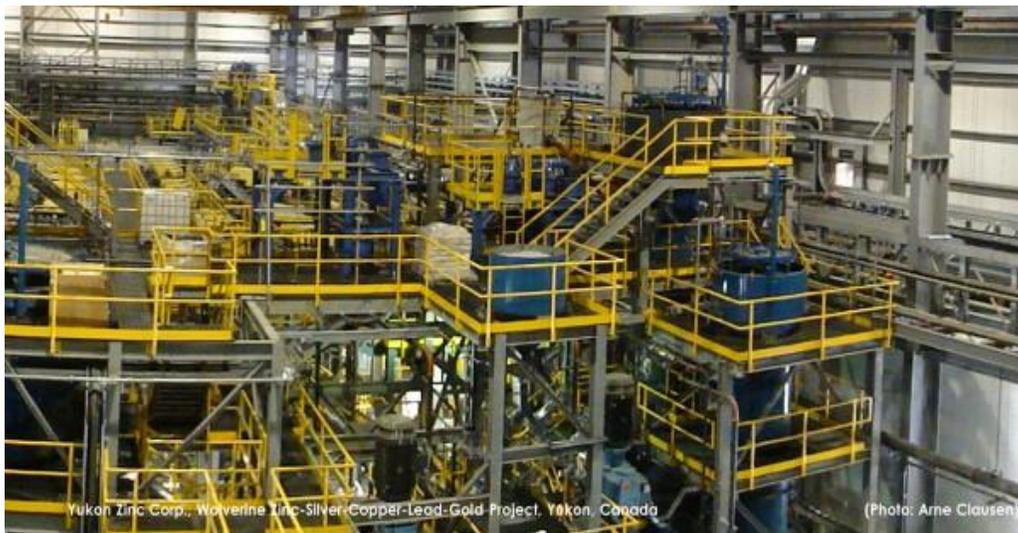
Our process and metallurgical design capabilities include:

- Metallurgical studies—conceptual to final design
- Metallurgical test work program—development, evaluation, and supervision
- Design criteria development and validation
- Process development—evaluation and supervision
- Process flow diagrams (PFD)
- Mass, energy, and water balances
- Piping and instrumentation diagrams (P&ID)
- Process plant layouts, control systems, and power supply
- Equipment selection and sizing
- Capital and operating cost estimating and financial modeling
- Manpower requirements
- Materials handling

Tetra Tech is a leading provider of consulting, engineering, program management, construction management, and technical services. The Company supports government and commercial clients by providing innovative solutions to complex problems focused on water, environment, energy, infrastructure, and resource management. With 13,000 employees worldwide, Tetra Tech's capabilities span the entire project life cycle.

We also specialize in:

- Design of metallurgical sampling programs
- Comminution—crushing, grinding, high-pressure grinding rolls
- Sizing and screening
- Gravity and magnetic separation
- Carbon-in-pulp (CIP) and carbon-in-leach (CIL)
- Flotation and concentrate handling
- Thickening and dewatering
- Heap leaching
- Refractory gold processing—bio-leaching
- Smelting of base metals



Process Optimization

Tetra Tech can help fine-tune clients' processes, attain compliance, or improve efficiency. Our engineers can assist clients by defining process control, determining the tests to run and when to run them, performing sampling and testing, developing process control spreadsheets, charting data, and helping to maintain compliance.

Sometimes existing processes can experience high-cost operational issues. Tetra Tech assists in improving operational efficiency by identifying, evaluating, and resolving such issues.

Our metallurgical engineers are able to undertake projects of any scale in any region involving almost any commodity.

Diverse Commodity Types

on our projects include gold, silver, platinum, palladium, and poly-metallic properties; aluminum, copper, nickel, and zinc; alloys of iron with chromium, manganese, silicon, tungsten, molybdenum, or vanadium; coal; rare earths; and more

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UK	Swindon, Wiltshire
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