

CORE



YOUR RESOURCE DEVELOPMENT PARTNER



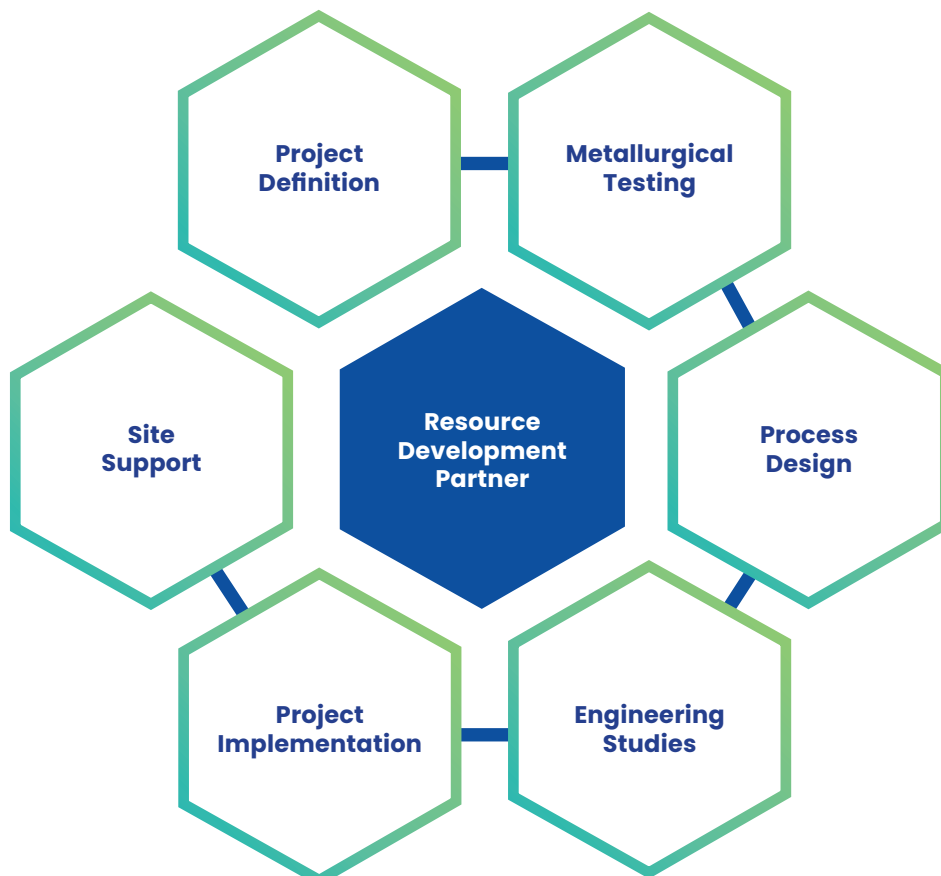
METALLURGICAL TESTING
PROCESS ENGINEERING
PROJECT SERVICES
PROCESS TECHNOLOGIES

Core Resources develops **innovative** and **sustainable** solutions to **complex metallurgical problems** allowing our partners to **realise the value** of their projects.

With a strong focus on finding practical solutions, Core provides integrated services in all aspects of metallurgical testwork, process engineering and flowsheet development, process technology development and project services for the global mining industry. We have extensive experience and expertise in the processing of critical, base and precious metals for new projects or for the retreatment of tailings and effluents for secondary mineral recovery.

Core's iconic laboratories were founded in Albion, Queensland, in 1982 and for over forty years have been at the forefront of process innovation, offering world-class metallurgical solutions from discovery to production. These are essential capabilities for successful minerals production.

Core has delivered thousands of projects, across the majority of metals and on every continent. With decades of hands-on operational knowledge, Core delivers projects that work.



METALS CORE CAN ASSIST WITH

Core possesses extensive expertise in metallurgical testing and flowsheet development for a wide range of metals and minerals.

Our metals expertise:

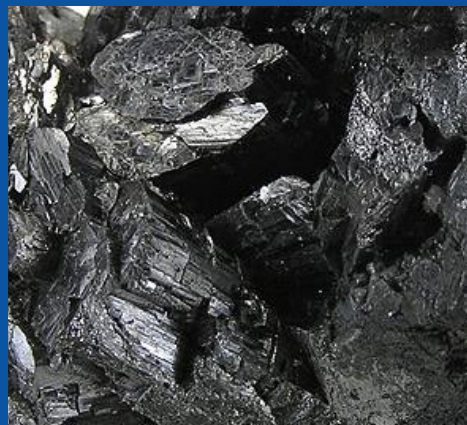
Critical and Battery Metals

Such as graphite, vanadium and rare earths



Precious Metals

Including gold, silver and platinum




Base Metals

Such as copper, nickel, cobalt, lead and zinc

Impurities and Toxic Elements

Including arsenic, antimony and fluorine

A gloved hand is shown holding a test tube. In the foreground, there is a blue rack containing several test tubes filled with a yellowish liquid. The background is a blurred laboratory setting with a blue cloth.

Leveraging our vast database of past projects, we provide clients with the knowledge and experience needed to advance their projects successfully.

More than just a laboratory, Core offers a fully integrated engineering and testwork service.

This integration of specialist process engineering services and high-quality metallurgical testwork enables us to deliver technically feasible and economically viable solutions in a cost-effective manner, helping our clients move their projects forward.



METALLURGICAL TESTING

Testwork

Core provides comprehensive metallurgical solutions across various mineral processing and hydrometallurgy operations, including comminution, flotation, leaching, solvent extraction, electrowinning, ion exchange and crystallisation.

We undertake testwork with a strong focus on process mineralogy, flowsheet development, process optimisation, and the development of new technologies.

Our testwork management services include:

- Project definition
- Geometallurgy
- Sample selection guidance
- Laboratory, batch and pilot scale metallurgical testwork
- Project management (quality, cost, schedule)
- Testwork interpretation
- Technical testwork reviews and due diligence assessments
- Specialised process equipment design and construction

Pilot Plants

With over 20 years of experience, Core specialises in designing and operating complex integrated process pilot plants, covering a wide range of mineral and hydrometallurgical processes.

Our services:

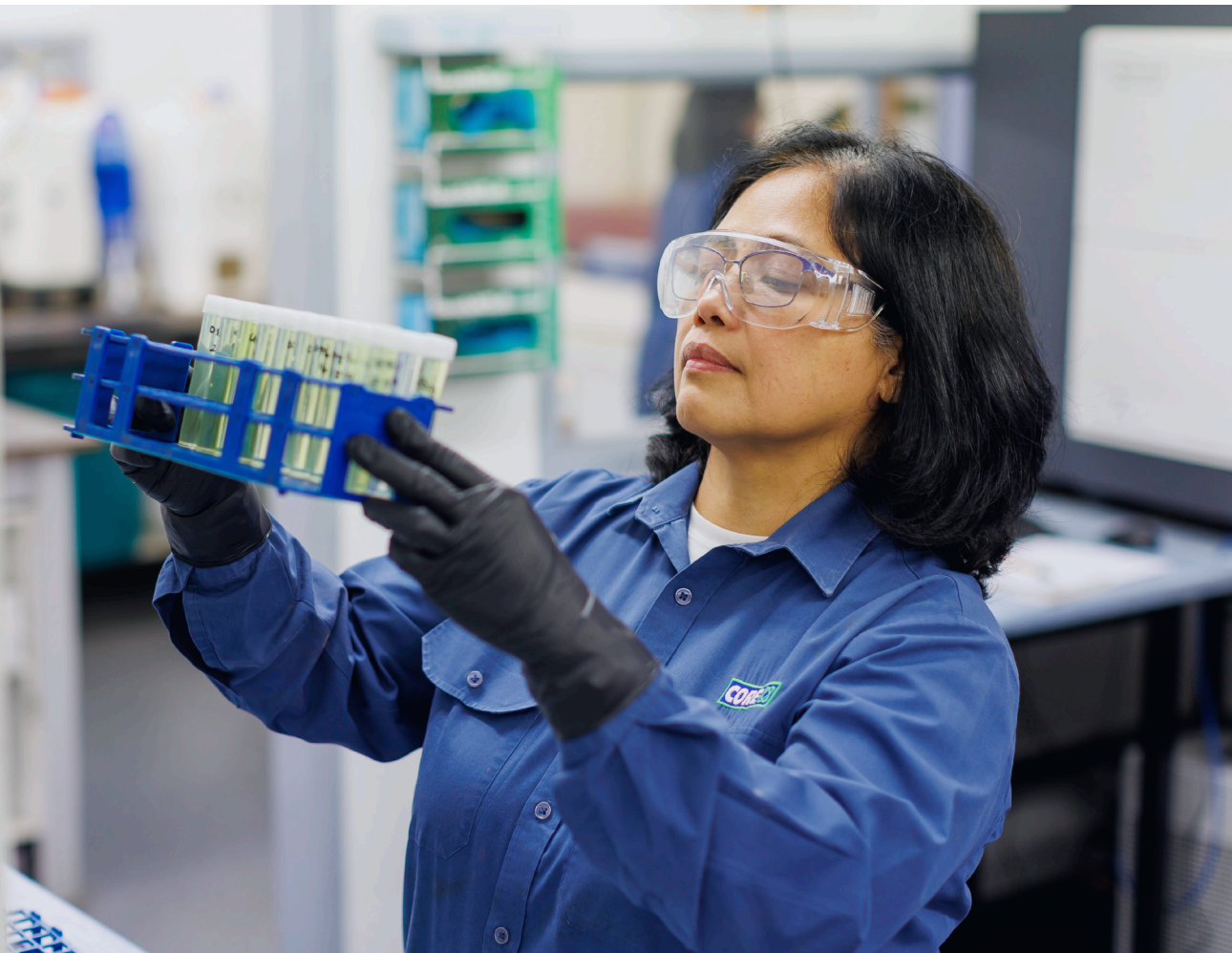
- Professionally conducted testing in advanced pilot facilities
- Pre-pilot program design and modelling
- Expertise across all mineral flowsheets including:
 - Crushing and Grinding
 - Flotation (Conventional, Jameson Cell and NovaCell)
 - Leaching (Albion Process™, Cyanide, Heap and Atmospheric)
 - Pressure Oxidation (POx) & High Pressure Acid Leaching (HPAL)
 - Solvent Extraction + Electrowinning
 - Ion Exchange
 - Crystallisation and Precipitation

Analytical Services

Core's assay laboratory offers a range of analytical services:

- In-house services for metallurgical testwork
- Fast-turnaround, high-volume analytical services for pilot plant trials
- Method development for complex matrices
- Routine analytical services for mining, chemical and process industries
- Cutting-edge analytical methods

Our dedicated team ensures exceptional quality and customer satisfaction with every analysis.





PROCESS ENGINEERING

Flowsheet Design

Core offers over 20 years of expertise in designing process flowsheets and plants for various commodities and processes.

Our services cover:

- Optimising process flowsheets to reduce risk and cut operating and capital costs
- Developing multiple processing options tailored to your resource, outlining key drivers for each
- Evaluating competing flowsheet options and identifying the optimal one
- Identifying critical process parameters and crafting strategies to address them
- Enhancing existing processes or developing alternatives to improve project economics, leading to higher grades and recoveries

Engineering Studies

Core's engineering group specialises in scoping, pre-feasibility and feasibility process engineering studies. Our experienced engineers provide expert guidance for diverse clients on metallurgical project development.

Core can assist with:

- Developing process flow diagrams and costed equipment lists
- Creating detailed mass and energy balances for your process using Excel, METSIM or HSC Chemistry
- Specifying size and cost for all process equipment using our in-house database and vendor-supplied quotes
- Calculating process operating costs, including power, reagents, consumables and labour
- Documenting process design criteria
- Establishing operational control philosophies
- Crafting Life of Mine operating strategies for your project, grounded in geometallurgical data



PROJECT SERVICES

Due Diligence

Core conducts Due Diligence assessments to evaluate the sustainability, operability and viability of mineral processing projects.

Our scope includes:

- Site visits to assess plant condition, performance and management
- Reviewing resource geometallurgy to evaluate recovery and grade performance
- Assessing operating and maintenance performance
- Reviewing Business Plans for project achievability, covering recoveries, operating time, capital and operating costs
- Identifying and commenting on Risks, Fatal Flaws and Opportunities
- Conducting techno-economic studies for improvement projects, expansions and recovery enhancements
- Providing commercial advisory services for acquisitions and joint ventures

Site Services

Core offers high-end technical expertise to review processing operations across crushing, milling, flotation, leaching, hydrometallurgical circuits and tailings/waste treatment processes.

We have global experience with site-based audits and optimisation projects in Africa, Europe, Asia, the Middle East, the Americas and Australia.

We offer a wide range of site services:

- Process commissioning
- Process optimisation and plant surveys
- Plant availability analysis and optimisation, including site condition reports
- Process debottlenecking
- Operator training
- Supplying site operating staff, including Process Managers, Metallurgists, Technicians and Operators
- Conducting safety, quality, and performance audits of site laboratory operations



PROCESS TECHNOLOGY

Commercialising Mineral Processing Technology

Core is a global leader in the development and commercialisation of process technologies for the mining industry. Our demonstrated expertise lies in the identification and development of innovative mineral processing solutions that effectively address the most pressing technical challenges in the industry. With a team of industry-leading technical experts at the helm, Core operates as a knowledge-based business, providing top-tier development services to mining projects worldwide. Our unique blend of expertise and innovation empowers us to solve complex metallurgical process issues, consistently delivering world-class solutions.



A Simple Solution for Refractory Gold and Base Metal Projects

The Albion Process™ is a proven technology that significantly enhances the value of refractory gold or base metal projects while simplifying processing plant operations. It offers lower capital costs, rapid implementation and early economic benefits, maximising returns. This process serves as a cost-effective alternative to POx, Roasting and BIOX® for treating refractory gold concentrates. Globally owned and patented by Glencore Technology, Core is the marketing partner for this technology, providing testwork and study services.



A Safe and Cost-effective Solution for Arsenic Control

The Toowong Process™ is a novel technology enabling the removal of toxic contaminants from mineral concentrates, addressing a critical global environmental problem that currently has no sustainable solutions. As ore bodies contain increasing levels of contaminants such as arsenic, the Toowong Process™ enables mining operations ship their products in a clean form.



Efficient Metal Recovery for Critical and Base Metals

CORE IPEX, a collaboration between Core Resources and IPEX, revolutionises metal recovery in mining. Building on wastewater success, this technology employs advanced Ion Exchange solutions for vanadium, base metal recovery, and tailings processing. It captures metals using specialised resins, creating purified streams for product processing.



Precision Rock Testing Reduces Project Risk

Geopyöra Rock Breakage introduces innovative rock characterisation testing, designed for modern mining. It offers efficient large-scale sample analysis, crucial for geometallurgy, comminution design and process optimisation. Comminution tests are essential for effective plant performance. Geopyöra uses small samples from drill core or crushed rocks, integrating with geochemical analysis for variability mapping, a fundamental aspect of geometallurgy.

Geopyöra provides key data empowering mining experts to reduce uncertainty and ensure resource optimisation.



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