



RARE EARTHS

Independent Metallurgical Operations Pty Ltd (IMO) has significant experience in the development of rare earth beneficiation flowsheets for all rare earth oxides. Our team has proven capabilities in the design and management of rare earth testwork programs, project development and operations throughout Australia and overseas.

Our scope of services ranges from sample selection, ore characterisation and mineralogy, through to management of metallurgical testwork, process aspects of scoping and feasibility studies, client representation and process plant site support.



PROJECT	CLIENT	OUR WORK
Ngualla Rare Earth, Tanzania	Peak Resources Limited	DFS beneficiation process development achieving improved results from the PFS (also managed by IMO). Testwork and process design management plus collation of conceptual flowsheet / mass balance.
Kanyika Niobium Project, Malawi	Globe Metals and Mining	Process flowsheet development and optimisation of oxide flotation and hydrometallurgical treatment to produce saleable product. Assisting with DFS document and CAPEX and OPEX generation.
Mt Weld, Western Australia	Lynas Corporation	Provision of metallurgical site support.
Nolans Bore Rare Earths, Northern Territory	Arafura Resources	Beneficiation flowsheet development and testwork management. Assisting with DFS document and financial model (CAPEX and OPEX) compilation.
Panda Hill Niobium Project, Tanzania	Cradle Resources	Assisting client with flowsheet design, testwork management, process engineering and collation of PFS documentation.
Nechalacho Project, Canada	Vital Metals	Overseas laboratory testwork management, beneficiation and refinery flowsheet development, process development and initial results review. Testwork being managed, included ore sorting, gravity separation, magnetic separation and flotation.
Kipawa Project, Canada	Vital Metals	Desktop study, including process flowsheet update, definition of TREO mass balance and process design criteria, which formed the basis of an updated factored capital and operating cost estimate. Additional data review.
North Tardiff Project, Canada	Vital Metals	Client representation: to providing feedback, tracking the testwork schedule and ensuring that all the data is adequately captured and documented.
Browns Range Project, Western Australia, Northern Territory	Northern Minerals	Beneficiation flowsheet development and testwork management. Testwork conducted included ore sorting, gravity separation, magnetic separation and flotation.
Longonjo Rare Earth Prospect, Angola	Rift Valley Resources Limited	Beneficiation and hydrometallurgical flowsheet development plus testwork management.
Tanami Rare Earth Project, Western Australia	PVW Resources	Beneficiation flowsheet development and testwork management. Testwork conducted included ore sorting, magnetic separation, leaching and flotation.

► Please contact us for more details on how we can provide you with assistance and support to your project.

www.indmetops.com.au

IMO Consulting & Operations

Independent Metallurgical Operations Pty Ltd
 88 Thomas Street, West Perth, Western Australia, 6005
 Phone: +61 8 9254 6900 Fax: +61 8 9322 1808
 Email: imo@indmetops.com.au

RARE EARTHS continued

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Khotgor REO Project, Southern Mongolia	Met Chem Consulting	Initial data review. Beneficiation flowsheet development, testwork management and improvement of previous testwork results.
Mangaroon Rare Earth Project, Western Australia	Dreadnought Resources	Management of initial flotation sighter testwork along with competent person signoff of the related Dreadnought ASX statement as Dreadnought's metallurgical representative.
Wudinna REE Project, South Australia	Cobra Resources	Metallurgical consulting on future steps of the client's REE project based on preliminary hydrometallurgical testing.
Songwe Hill REO Project, Malawi	Mkango Resources	Beneficiation flowsheet confirmation via metallurgical testwork.
Mrima Hill Niobium and REO Project, Kenya	Pacific Wildcat Resources	Beneficiation flowsheet development and testwork management.
Confidential Client, South Africa	Confidential Client	Initial data review. Beneficiation flowsheet development, testwork management.
West Arunta Project, Western Australia	WA1 Resources Ltd	Characterisation of mineral distribution of valuable niobium and rare earth bearing minerals along with determining sample requirements for metallurgical testwork and mineral resource input.

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