

MININGASSOCIATES

Welcome to the Mining Associates Network

Mining Associates Consulting Network provides leading geological, resource and mining consultancy services worldwide from its head office in Brisbane. Through its large network of experienced professionals, Mining Associates can assemble skilled teams to provide expert technical advice across a wide range of mineral commodities, geological settings and mining methods.

Our capabilities range from exploration to feasibility studies, mining operations and mergers and acquisitions.

Our clients include exploration and mining companies, financial institutions, stockbrokers, law firms and auditors.

Our network of associate consultants are recognised as experienced industry professionals, competent persons for all major stock exchanges and are skilled in JORC and NI 43-101 reporting.

Network Capabilities

Geology	Competent and Qualified persons in Exploration Geology and Management, Project Generation, Project Data Management, Mapping, Structural Geology, GIS, Geophysics, Geochemistry, Petrography, QAQC
Resources	Competent and Qualified persons in Resource Estimation and Geostatistics, Databases, Independent Technical Reports (JORC-2012, NI 43-101), Reconciliations
Studies	Competent and Qualified persons for Metallurgical/Mine studies, Feasibility, Pre-Feasibility and Scoping Studies, Independent Technical/Expert Reports for major exchanges (ASX, TSX, AIM, HKSE) and IPO's
Operations	Competent and Qualified persons for Ore Reserves, Project and Mine Management, Fixed and Mobile Plant Asset Management, Mine Design, Metallurgy, Geotechnics, Mine Geology, Grade Control
Corporate	Due Diligence and Audits, Mergers and Acquisitions, Finance, Valuations, Restructure and Change Management, Operational Review, Legal and Contracts, Expert Witness

Commodity Expertise

Precious Metals	gold, silver, platinum group (Au, Ag, PGMs)
Base Metals	copper, lead, zinc (Cu, Pb, Zn)
Bulk Commodities	laterites, iron ore, aluminium (Fe, Al)
Steel Industry Metals	nickel, chrome, titanium, vanadium, molybdenum, manganese (Ni, Cr, Ti, V, Mo, Mn)
Rare Metals	tin, tungsten, bismuth, cobalt, rare earth elements (Sn, W, Bi, Co, REE)
Industrial & Construction	clay, sand, dimension stone, limestone, fluorite, potash, phosphate and others
Energy	coal, gas, uranium, oil, shale, battery metals (Ni, Li, V)
Specialty	diamonds, gems and others

Contact Us

Through its network of Associates, MA can source and build multidisciplinary teams with knowledge and experience in all aspects of the Mining Business. Some of our Associates:



ANDREW J. VIGAR | Principal Geologist | BSc (App Geol), FAusIMM (CP), MSEG, MAIG

Andrew is a geologist with 40 years' experience in the minerals industry covering exploration to mining, corporate finance and education. He held multiple executive level positions prior to commencing consulting in 1996. He founded Mining Associates in 2003, Alligator Energy (ASX:AGE) in 2010 and K92 Mining in 2015. He is the Chairman of Mining Associates, the Brisbane Mining Club and lectures at the University of Queensland.



IAN TAYLOR | Principal Resource Geologist | BSc Geol (Hons), Grad Cert, MAusIMM (CP), MAIG

Ian is a Chartered Professional Geologist with over 25 years in the mining industry encompassing roles from Geologist to Resource Manager including Exploration and Mine Geology functions. Ian has experience in a range of commodity styles including orogenic gold, epithermal gold and silver, porphyry copper-gold-molybdenum, komatiitic nickel sulphide, intrusion related gold and VMS deposits. He meets JORC CP and NI 43-101 QP requirements for reporting of resources for orogenic gold, epithermal gold, intrusion related gold, porphyry copper-gold-molybdenum and komatiitic nickel mineralisation styles.



JAMES LALLY | Principal Structural and Resource Geologist | BSc Geol (Hons), MSc, PhD, MAIG

James is a Principal Resource, Exploration and Structural Geologist, with 25 years' experience in the mineral exploration industry. He is experienced in project generation, exploration project management, technical due diligence, GIS, data management, resources and structural geology. Expertise includes proficiency and implementation of GIS and database systems, structural geology, regional to prospect/deposit scale mapping, integration of geological and geophysical data into 2D and 3D geological models.



PETER CARISTO | Principal Geologist | BSc Geol (Hons), MBA, MAIG (RPGeo), FSEG

Peter is a Principal Exploration Geologist, with 25 years in the mineral exploration industry. His expertise covers project generation, drill targeting, exploration project management, technical due diligence and data management, specialising in gold. Peter has held senior positions in Newcrest Mining and OceanaGold and worked as an independent consultant covering several deposit styles and terranes including orogenic Au, low sulphidation epithermal, IRGS, and porphyry Au-Cu. He has operated exploration projects in Australia, Papua New Guinea, Indonesia and Cote d'Ivoire, and has project generation experience in Oceania, Asia and North America.



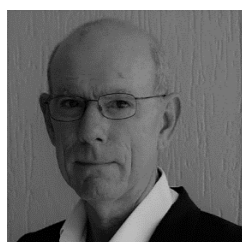
CHRISTINE BROWN | Senior Geologist | BSc Geol/Chem, MSc Econ Geol, MAIG

Christine has over 30 years' experience in mining and exploration. She has worked on projects across Australia and PNG with both major and junior mining companies and spent many years providing geological consulting and software support services to the exploration and mining industry. Christine's areas of expertise include GIS project development and data review, geological database administration and 3D geological modelling. Christine has experience in precious metals, base metals and coal.



MARK ARUNDELL | Principal Geochemist/Geologist | BSc Geol/Geoch (Hons), MSc Econ Geol, GDip Groundwater, MAIG, MSEG, FAAG

Mark is a highly experienced and successful geologist and geochemist with over 30 years' experience in mineral exploration, mining, and equity capital markets. Having worked throughout Australia and overseas, he has broad experience in copper, gold, nickel, iron ore, uranium, potash, talc and trona amongst other commodities, with specialties in geochemistry, project assessment and project generation. He has held senior roles with RGC, North Limited and Rio Tinto, as well as floating Oakland Resources and Highfield Resources, and has extensive consulting experience. Mark has also held the position of CEO with Sky Metals.



PETER POLLARD | Principal Geologist | BAppSc, BSc Geol (Hons), PhD, FSEG, MAusIMM, MGSA, MSGAMD

Peter has more than 30 years research and consulting experience in the mineral exploration and mining industry. He is an experienced board member of public and private companies and has been a presenter of short courses on ore deposit geology for over 20 years. His expertise includes target generation, project evaluation and independent expert reports and covers a range of intrusion-related mineralising systems including porphyry Cu-Au, IOCG, Sn-W, U, REE systems and low and high sulphidation Au-Ag. His exploration experience is global in scope, involving significant deposits in Africa, South America, North America, Asia and Australia.



KYLIE PRENDERGAST | Principal Geologist | BSc Geol (Hons), PhD, MAIG

Kylie is an experienced geologist with 25 years' experience in the minerals industry. She has been involved with and managed projects in Australia and abroad, at all stages including discovery, exploration, project generation, feasibility, mine development and business development.



ANDREW WALTHO | Principal Geologist | BAppSc Geol (Hons), FAIG (RPGeo), FGS, MIMMM, GAICD

Andrew has over 30 years' experience in the exploration and mining industry and has been involved at a senior level in exploration and mining projects in Australia and overseas. His expertise includes project generation, project management, technical due diligence and risk assessment and mining operations management covering multiple deposit styles and terranes. Andrew has broad commodity experience including lithium and other battery metals, gold, base metals, nickel, copper, uranium, potash, industrial minerals, heavy mineral sands, rare earth elements and coal, has held senior positions in Rio Tinto and Pasminco and worked as an independent consultant.



TONY WOODWARD | Principal Geologist | BSc Geol (Hons), MSc Expl and Mining, MAusIMM

Tony is a highly experienced geoscientist with senior level experience in minerals exploration, mine geology and project management. He is an experienced manager with a track record in brownfield exploration for gold and base metals. He has established and successfully managed technical services departments at underground and open-cut gold and copper mines in Australia, Africa and the Pacific. He is experienced with NI 43-101 and JORC reporting protocols and a CP/QP for mining, metallurgy and geology. Tony is also a CP/QP for Placer and mineral sands deposits.



CRAIG BROWN | Principal Process Engineer | BEng (Chem), Grad Dip Geosci, MAusIMM

Craig has over 30 years' experience in metallurgical engineering and management in the mining and mineral processing industries. With management level experience of company operation, project design, engineering and commissioning of small to major complex processing facilities, he has also provided consulting services to new projects and existing operations. Technical expertise covers alluvials, heap leaching, concentrator design and operation, including crushing, grinding, classification, heavy medium and gravity separation, oxide and sulphide flotation, leaching, thickening, tailings treatment, filtration and process control. He has experience in recovery and commercial aspects of many mineral commodities including gold, copper, silver-lead-zinc, nickel, magnesium, tin, iron, mineral sands, industrial minerals, uranium and coal.



TULLY DAVIES | Principal Engineer | BEng, MAppFin, Mine Manager (Qld)

Tully is a minerals industry professional with over 20 years metalliferous mining experience spanning mine design and planning, technical services management, study management, projects and mine operations. Mark has held senior positions with Evolution Mining, Minjar Gold and Sibelco and provided independent consulting services specialising in Life of Mine and associated business planning, with experience leading multi-disciplinary Mine Feasibility Study teams.



MARK MODDEJONGEN | Principal Engineer | BEng, FAusIMM, RPEQ, CPE

Mark has over 30 years mining experience in a variety of roles and covering a wide range of mineral commodities including gold, copper, silver, lead, zinc, nickel, magnetite, iron ore, cobalt, molybdenum, feldspar, silica sands, chrysoprase and coal. He has worked on projects and mines in Australia, Kazakhstan, Argentina, PNG, New Zealand, Fiji, Indonesia, Solomon Islands, Serbia, India, Laos, Armenia, South Africa, Tajikistan, Russia, DRC, Bangladesh, Eritrea, Uganda, Zambia, Dominican Republic, Tanzania, and China.



BRUCE WRIGHT | Principal Engineer | JD (Law), MEngSc (Mining), MBA, BSc, FAIM, FAICD, RPEQ, Mine Manager (Qld, NSW, NZ)

Bruce has over 30 years' experience in surface and underground mining in Australia, New Zealand, Ghana, New Caledonia, Fiji, Papua New Guinea, Sierra Leone, Saudi Arabia, Indonesia and the Philippines. He has managed mining operations in Queensland and New South Wales, been General Manager of mining operations in Queensland and Company Director of an international mining company. He has been a mining consultant for 12 years, working on coal, gold, nickel, iron ore, rare earths and uranium projects. Bruce developed the multi-disciplinary GHD Mining Services Group Brisbane and headed up that group as Manager Mining for 4.5 years undertaking resource evaluation, mine design, feasibilities, economic evaluations and due diligence.