



RESOLVE
MINING SOLUTIONS

CAPABILITIES STATEMENT
2022

www.resolvemining.com.au



ABOUT

Founded in 2017, Resolve Mining Solutions (Resolve) continues to build a team of A-grade mining professionals who firmly believe in forging a path in industry aligned to our company purpose, mission, values. We are here To Do Better through the delivery of pragmatic and innovative solutions by inspiring, developing and supporting people.

The Team has been assembled by design using our strict selection criteria to ensure they are capable and ready to identify, explore, and deliver sustainable project outcomes and build lasting client relationships.

By maintaining a deep involvement in the global mining industry, Resolve understands the needs of national and international business and the complexities of working across jurisdictions.

Our embedded and consulting teams cover the core disciplines for almost all project needs, including geologists, geotechnical engineers, mining engineers, metallurgists, and surveyors.

RESOLVE – EMBEDDED work with our clients to assess their situation, accurately identify any issues at hand, suggest innovative solutions to help them either implement the solution internally or provide a choice of top talent to execute on their behalf.

RESOLVE – CONSULTING engages closely with clients to understand the Scope of Work to deliver tailored, pragmatic solutions. Our highly qualified personnel meet the stringent requirements of Competent Person (CP) or Qualified Person (QP).



Marcus Doyle
PRINCIPAL

Marcus is an International mining professional with extensive experience in operational management. As the Director of Resolve Mining Solutions, Marcus has hand-picked a strong team of mining professionals.

Marcus has strong leadership and an innovative vision to develop a company that delivers sustainable results. By building an inspired and aligned team, Marcus is instilling a refreshing culture of continuous improvement, innovation and accountability.

Marcus is committed to developing a high performing team that maximises potential with an operating discipline. The teams' values are the key to delivering quality to our clients.



OUR TEAM



John Nolan
OPERATIONS MANAGER

John has a remarkable depth of industry experience and knowledge. With over thirty years working both offshore and within Australia, John has a sharp eye for strategy and a deep understanding and technical know-how across the mining industry.



Bart Jesionek
MINE MANAGER

Bart has had great success with mine planning, stakeholder management and is an advocate of positive change management and continuous operational improvement, aiming to create maximum returns for the ventures he takes part in.



Luke Stannard
PROCESS MANAGER

Luke has wide-ranging experience as a mining industry management professional in operational, project and corporate roles. Luke is a solution-seeker. He adds value to operations by maximising at-hand resources, developing stakeholder engagement and improving capabilities.



Andrew Hutson
SENIOR PRINCIPAL
MINING CONSULTANT

Andrew is a mining engineer with over 30 years of experience across all facets of the mining industry, working on projects in both Australia and Africa and across numerous commodities. Andrew has a wealth of expertise, having worked for both owner-mining and contracting operations.



Claudia Vejrazka
PRINCIPAL MINING
CONSULTANT CAVING

With experience in Australia and Germany, Claudia's expertise covers underground and open-cut mine design and planning, order of magnitude and feasibility, project execution, operations and mine closure. Claudia is renowned for her effective design thinking.



OUR TEAM



“

Find a group of people who challenge and inspire you,
spend a lot of time with them, and it will change your life.

~ Amy Poehler

”



SKILLS

Resolve offers varied and flexible solutions to accommodate the needs of our clients. We can fulfil projects with a comprehensive team or utilise specific skills from our pool of highly experienced mining professionals.

Embedded Roles

- Mine / General Management
- Mine Engineering
- Mine Surveying
- Mine Geology

General Mine Management

- Mine Management
 - Open Pit / Underground
- Contract Management
- Mining Engineering
 - Mine Design
 - Mine Planning / Scheduling
 - Drill and Blast
 - Ventilation

Business Development

- Due Diligence
- Peer Reviews
- Resource / Reserves Estimation
- Full Mine Reviews
 - Underground / Open Pit
- Business Development and Strategy
- Scoping and Feasibility
- Capability and Performance Assessment
- Strategy Review
- Operational Readiness and Optimisation
- Expansion Optionality
- Contract Tender Assistance and Reviews
- Business Turnarounds
- Business Improvement
- Change Management

Operational

- General Mine Management
- Mine Restarts / Closures
- Mining / Infrastructure Projects
- Operations / General Management
- Operational Support
- Training and Development
- Narrow Vein to Large Cave Methods





ENGINEERING SERVICES

In addition to the embedded services Resolve Mining Services has built up a highly experienced team of consultants who are working with established and developing mining companies to provide high quality solutions and project advancement.



The Resolve team has extensive global experience including both through studies work and in-country management over a wide variety of commodities, the team also has the required consulting engineers to undertake JORC 2012 and NI 43-101 Ore Reserve reporting.

Our team of principal consultants have considerable experience on operating mine sites in technical and management roles. This ensures that the study work undertaken is practical and achievable, especially for the higher level, early stage studies. With this practical experience Resolve is well placed to undertake the mining engineering components of Scoping, PEA, PFS and DFS studies for both open pit and underground projects including the assessment of the optimum mining methods along with suitable trade-off studies.

Our team has a wide variety of experience across the main mining software packages including experts in the Surpac, Whittle and Deswik suite of packages but also significant experience in most of the currently available software solutions.

Resolve is committed to providing not only the highest quality studies but also to ensure each phase of the study involves the client and is communicated to all the key decision makers to ensure all company expectations are included.

Study Management

Resolve will work alongside our clients to produce a solution that meets their expectations while providing the best available technical solution. Resolve has highly experienced study managers who will ensure the outcomes are as expected but also reported and communicated to all key stakeholders.

Geotechnical Investigations

The Resolve team of experienced geotechnical engineers work with both the mining engineers and our clients to develop the design parameters and recommendations needed to complete the project assessments.

The team has significant practical on-site experience which when combined with structural interpretation, stability analysis, rock mass characterisation results in high quality pit slope design recommendations or underground design and ground support criteria for development drives, stopes, shafts and portals.

Resolve can also provide our clients with geotechnical support including design and reviewing of geotechnical investigations, provision of logging and mapping services and validation of geotechnical and structural interpretations.

ENGINEERING SERVICES

Open Pit and Stope Optimisations

At Resolve, we recognise the importance of preliminary studies to understand where the best value for the project can be uncovered.

Our consultants are specialists in both open pit and stope optimisation and will work closely with both technical and financial stakeholders to find the best arrangement of economic mining depth, ideal cross-over to underground and the practical size and scale of the operation using various mining methods, dilution modelling, phase analysis, minimum mining widths and discounted cash flow analyses.



Mine Design

In consultation with our clients Resolve will use the results of the optimisations to create the required mine designs and infrastructure layouts. Mine design can involve conceptual plans to determine layouts and sequencing before final designs are developed which will include practical pit staging, waste dumps, stockpile and haul road layouts plus underground development and stoping designs along with suitable cross-over access requirements.

Resolve are committed to providing a design that is practical and achievable which includes the parallel investigations into backfill, ventilation systems, ground support and drill and blast design including fragmentation and caving analyses.

Strategic and Life of Mine Scheduling

The production schedule is a critical to the value of the project. Resolve is keenly aware of this and will develop a practical strategic schedule to show the outcomes of the numerous constraints such as processing rates, mining advance or development rates. This strategic schedule allows for fast options analysis to assist the selection of the most practical and valuable scenario.

Resolve can then take this strategic schedule as the basis for detailed scheduling for use in short or long term mine planning. These detailed plans will include analysis of elevated cut off grades, stockpiling, ore blending, while retaining the importance of achieving a practical plan within the processing and mining constraints.

Cost Modelling and Equipment Selection

Capital and operating cost estimation is required in all stages of a mining study and all key milestones would include a net worth assessment to ensure the study retains the focus on project value.

The Resolve team have significant experience on mine sites developing operating costs which then form the basis to mine planning. This knowledge allows us to prepare high quality capital and operating cost estimates aligned with the production plan and includes equipment selection and fleet sizes, staffing levels and rosters plus the costs associated with development and mine closure.

Independent Reviews and Due Diligence Evaluations

Resolve can provide technical reviews for mining projects from early-stage evaluations to feasibility study reviews and due diligence evaluations for mergers and/or acquisitions.

Resolve can provide a range of expertise to review mining projects including geologists, geotechnical engineers, metallurgists and mining engineers, we also have strong relationships with specialists in various disciplines depending on the review requirements.



Resolve's Cave Mining team includes top Australian talent with experience across a range of Australian Caving Operations including Mining Engineers and Geotechnical Engineers. With outstanding qualifications, experience and interpersonal skills, the Resolve team can be counted on to deliver on a diverse range of projects, consultancy or embedded work throughout Australia and the world.

Resolve Mining Solutions works closely with a vast range of mining clients to maximize their value. Specialising in identifying and driving value-added improvements and enhancing business strategy, the nimble team at Resolve have the capabilities to offer simple, practical and efficient solutions to all stages of the caving project cycle.

Our team has a wide variety of experience across the main mining software packages including experts in the Deswik suite of packages, PGCA, PCBC and PCSLC but also significant experience in most of the currently available software solutions.

Embedded Roles

Resolve has a number of professionals available to work alongside clients to fill critical roles on mine sites both in short-term mine production and geotechnical roles as well as longer-term technical study roles. Their experience includes management of mining projects and contractor management.

The team has significant experience in the evaluation of caving specific risks and development and implementation of risk management systems appropriate to the caving industry.

Mine Technical

In addition to embedded services Resolve can offer a wide variety of mine technical services with the team having block and sublevel caving specific experience in mine design, mine planning and scheduling, drill and blast and ventilation.

Our team can further support our clients with technical and software training as well as ongoing operational support and reviews to enhance the professional development of the mine site technical staff.

Business Development

Productivity and business improvement is critical in the caving industry given the low-grade nature of the deposits being mined. The further enhance our clients' operations,

Resolve can offer a wide variety of business development services, including:

- Due Diligence & Peer Reviews
- Reserve Estimation compliant with JORC 2012
- Full Mine Reviews
- Scoping and Feasibility
- Capability and Performance Assessment
- Strategy Review
- Operational Readiness and Optimisation
- Expansion Optionality and trade-off studies
- Contract Tender Assistance and Reviews
- Risk Management Systems

Recent Experience Includes

- Newcrest Mining, Cadia East
- Oz Minerals, Carrapateena
- CMOC, Northparkes Mines
- BHP Nickel West, Leinster
- BHP, Olympic Dam
- EMR Capital, Capricorn Copper



METALLURGY SERVICES

Resolve Mining Services has a growing team of skilled metallurgists who are working with established and developing mining companies to provide high quality solutions and project advancement.

The Resolve team has extensive global experience including both through studies work and in-country management over a wide variety of commodities. Our team of metallurgists have considerable experience in operating mine sites in technical and management roles. This ensures that the study work undertaken is practical and achievable.

With this practical experience Resolve is well placed to support teams undertaking Scoping, PEA, PFS and DFS studies for processing plant projects across base metal, gold, and a range of industrial minerals.

Resolve is committed to providing not only the highest quality outcomes for its clients but also to ensure each phase of the study supported involves the client and is communicated to all the key decision makers to ensure all company expectations are met.

Study Support

Resolve will work alongside our clients to support studies of developing and expanding minerals processing facilities to meet their expectations while providing the best available technical solutions. The team can provide equipment reviews, process flow analysis, and plant layout reviews to deliver the solution. Resolve has highly experienced metallurgists who will ensure the outcomes are as expected but also reported and communicated to all key stakeholders.

Metallurgical Investigations and Production Improvements

The Resolve team has significant practical on-site experience which when combined with metallurgical analysis and testing results in high quality metallurgical recommendations for implementation.

Resolve can also provide our clients with the metallurgical support to navigate the path of change for clients to successfully introduce the necessary production improvements nominated.

Production Support

From commissioning to steady-state operations, plant expansions and ramp downs, Resolve's metallurgy team have run plants that are some of the world's largest, as well as smaller scale facilities. Resolve is keenly aware that each operation requires a unique production management strategy and can provide the right skill set to match the operation being supported from Plant Metallurgist level through to Process Manager.





CONTACT

Resolve has been servicing mining businesses throughout Australia since 2017 via our extensive experience delivering on short lead-times right through to long project placements, mining study work for companies large and small.

Customer Feedback

“Marcus and the Resolve team have been very responsive, flexible and committed in meeting our business’s needs. Each of the team is first class, and can be trusted to deliver”

Stuart Reid Glencore

“The Resolve team is a diverse group of engineers with varying levels of experience, They have been a great fit for us when moving into a new team, bringing with them positive attitudes and a great work ethic”

Michael Domborski, Tech Services GFM

Recent Experience

- BHP Olympic Dam
- Glencore George Fisher
- Glencore Lady Loretta
- Glencore MICO
- Red5 Ltd King of the Hills Mine
- Regis Resources Rosemont Operations
- Minesa Sociedad Minera de Santander Columbia
- Kirkland Lake Cosmo and Fosterville
- CBH Resources Rasp
- Oz Minerals Carrapateena
- Wiluna Mining – Wiluna
- Evolution Energy Minerals – Chilao
- FireFinch – Morila Gold Mine
- Allied Gold
- Podium Minerals – Parks Reef
- 29 Metals – Golden Grove
- Bellevue Gold
- Blackstone Minerals – Ban Phuc Ni
- Ernest Henry
- Evolution Mining – Lake Cowal
- Bluestone Metals – Renison
- MMG – Dugald River
- Western Areas
- Tronox – Atlas Campaspe
- Sandfire Resources – Degrua

Contact Resolve Mining Solutions

1300 220 440

info@resolvemining.com.au

www.resolvemining.com.au

Victoria

Level 2

66 Victor Cr

Narre Warren VIC 3805

Western Australia

Perth Office

L1, 220 St Georges Tce

Perth WA 6000

Insight Management and Strategy Pty Ltd

T/A Resolve Mining Solutions

ABN 75 623 510 930 ACN 623 510 930



RESOLVE
MINING SOLUTIONS