

# Overview of Our Services

Informed decision-making through  
comprehensive geological expertise

Expertise - Reliability - Customisation





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## Our Services

Jhon Espinoza, the Director and founder of Mineral Resource Assurance (MRA), brings over 34 years of experience in the mining industry. He has worked with major mining companies in open cut and underground operations, holding various technical and leadership roles. His expertise encompasses exploration, mine geology, resource modelling, reconciliation, and public reporting under the JORC Code (2012), US SEC S-K 1300, and NI 43-101 standards. Jhon is a Member of AusIMM and operates as an independent consultant through MRA. He partners with other professionals to deliver a highly specialised and comprehensive consulting service tailored to the unique needs of exploration and mining companies.



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### Our Values

**Integrity:** Upholding high standards of integrity, delivering transparent and ethical consulting services you can trust.

**Sustainability:** For an environmentally responsible and socially conscious resource development.

**Quality:** Top-tier quality in every project with precise and reliable solutions.

**Collaboration:** We believe in the power of collaboration and work closely with our clients to achieve their goals.

### Our Commitments

Identifying and mitigating risks, ensuring safe and secure project execution for our clients.

Delivering highly accurate and precise geological assessments and identifying opportunities for value-add.

Being highly responsive to our clients' needs and inquiries, providing prompt and effective support.

Build long-term partnerships with our clients, focusing on sustained success and mutual growth.

Providing tailored solutions that address the specific needs and complexities of each project.

### Why Choose Us

Over three decades of expertise in exploration, mine geology, resource modelling, and public reporting.

Commitment to deliver accurate and reliable assessments that are compliant with the regulations.

Tailored solutions to meet the unique needs of your projects.

The highest standards of quality, sustainability, and compliance to meet industry regulations.

MRA prioritises your goals and challenges, delivering customised solutions for your unique project requirements.



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## Exploration

*"I'm a storyteller; that's what exploration really is all about. Going to places where others haven't been and returning to tell a story they haven't heard before."*

James Cameron

MRA can assist you with the public reporting of Exploration Results and Exploration Targets following JORC Code (2012) and ASX Listing Rules. MRA can work cooperatively with clients to design Greenfields and Brownfields programs, define target ranges, assess potential, risks, and opportunities, and addressing ESG considerations for overseas exploration activities.



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### Advice

Review and design of cost-effective exploration programs.

Review and assessment of data integrity and preparation for upstream modelling.

We have experience in exploration techniques of gold, iron ore, copper and base metal deposits.

### Reporting

Key technical insight for the valuation of exploration tenements under VALMIN Code (2015).

Report of Exploration Results in line with JORC Code (2012) and ASX Listing Rules.

Range definition for the preparation of public reports of Exploration Targets under JORC Code (2012), identifying risks and opportunities for portfolio evaluation and strategy.

### For projects in South America

We partner with highly specialised geoscientists on the entire spectrum of disciplines.

Experience in Brownfields and Greenfields exploration of high-sulfidation gold deposits.

Comprehensive assessment of ESG factors that may impact exploration projects.

Geophysics and geochemistry programs.

# Mine Geology

*“Look deep into nature, and then you will understand everything better.”*

Albert Einstein

MRA can assist you in the formulation of Ore Control methodologies leveraging the potential of your recoverable resources via the definition of Grade Control guidelines and the design of mine geology routines for your staff. Enhance in-house practices with our advice on geometallurgical sampling and structural mapping.



## Advice

Independent view of mine geology processes identifying gaps and good practices.

Mine to mill/port reconciliation.

Review and characterisation of ore types.

## Leveraging value

Review and design of ore control methodologies to reduce the risk of undesired waste and dilution that impact the value chain.

Design of Geometallurgical sampling protocol.

Review and design of waste characterisation programs.

## Customisation

Establishing mine geology routines to facilitate effective collaboration and service with mine planning, scheduling, and processing departments.

Review and design of pit mapping methodologies.

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## Resource Modelling

*“It is not the language of painters but the language of nature which one should listen to, the feeling for the things themselves, for reality, is more important than the feeling for pictures.”*

Vincent Van Gogh

Our expertise in 3D Orebody Modelling, Geometallurgical Characterisation, Resource Classification, Resource Estimation, Risks and Opportunities will leverage your resource potential.



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### Advise

Independent audits or peer reviews of geological interpretation and resource models.

Definition of interpolation and kriging strategies for resource estimation and classification into Inferred, Indicated, and Measured categories.

Validation of resource estimates and identification of alternative estimation techniques.

### Leveraging Value

Geometallurgical characterisation and modelling for value adding.

Resource characterisation to assist Geotechnical, Hydrological, Environmental and Closure plans.

Diagnose of source of discrepancies in mine production (ore grades and tonnages) to help optimise mining strategies and maximise resource recovery.

### Public Reporting

For first time reporting Mineral Resources we ensure your estimates are reported in compliance with JORC Code (2012) via independent peer reviews or by assessing the reasonable prospects of eventual economic extraction.

Report of Mineral Resources in line with JORC Code (2012) and ASX Guidelines as well as other international reporting standards under CRIRSCO.

ESG effect on resource estimation and reporting.

## Assurance Activities

*"Trust, but verify."*

Ronald Reagan

MRA has extensive experience in independent audits of geological and resource models. We can provide an independent expert opinion or we can work together to collaborate in peer reviews, risk reviews, ad-hoc reviews and due diligence activities.



### Advice

We perform thorough evaluations of geological and mineral resources data to support due diligence assessments for project acquisitions, mergers, and financing.

Our services include end-to-end assessments of the resource and reserve workflows through validation, verification and compliance monitoring.

### Leveraging Value

Working in collaboration with clients to identify meaningful Geoscience inputs in investment toll gate reviews.

### Corporate Assurance

Strengthening the three lines of defence assurance model via a collaborative approach with the first and second lines of defence.

Comprehensive end-to-end audit scopes identifying gaps and opportunities to improve.

Peer reviews of technical reports and resource estimates, providing an expert second opinion.

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## Public Reporting and Compliance

*"Great companies are built on great products."*

Elon Musk

Our commitment to excellence and compliance with regulatory principles such as JORC Code (2012), VALMIN Code (2015), ASX Listing rules and others guidelines, help to maximize financial returns and mitigates project risks.



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### Advise

Continuous professional development and update of public reporting guidelines for ASX-listed companies.

MRA can assist when reporting foreign or historical Exploration Results and/or Mineral Resources.

### Compliance

Identification of pitfalls in ASX Market Announcements for the public reporting of Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves.

We can assist clients to report exploration results, resources and reserves with adherence to JORC Code (2012), VALMIN Code (2015), US SEC SK 1300, NI 43-101.

### Competence

Our experience is relevant to be a Competent Person for a variety of deposits and commodities such as gold, iron ore and copper.

Geoscience Expert for VALMIN Reports.



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MINERAL RESOURCE ASSURANCE is a business name registered on the Australian Securities and Investments Commission's (ASIC) register under section 33(8) of the Business Names Registration Act 2011.

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