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MINING SKILLS AUSTRALIA ANIMATION

The training industry is no stranger to disruption with traditional ways of learning evolving from classroom training to e-learning to innovate digital and blended learning experiences.

Workers are rapidly changing the way they engage with learning in the workplace. Mining Skills Australia uses a range of digital technologies to bring workers into an immersive learning environment that fosters a deeper engagement with the content. A blended learning approach will optimise/ augment a Learning Management System (LMS) with Animation, Augmented Reality (AR) or Virtual Reality (VR) resources.

As a learning tool, digital technologies outweigh traditional learning resources:

- ✓ Learners who have trained with immersive, digital resources are 40% more confident in their new skills over traditional classroom learning
- ✓ The individual controls the pace of their learning, allowing independent revision and repeatability of simulations
- ✓ Animation, when used correctly, can contract 25 minutes of material into 5 minutes, allowing for quicker and more comprehensive training
- ✓ Simulations offer a safe environment for learners to build new skills before graduating to hands-on training with expensive machinery
- ✓ Animations open limitless remote learning outcomes when paired with customized learning packages
- ✓ Augmented Reality (AR) allows live communication with experts using tablets or heads-up-displays (HUD) providing cost effective training solutions
- ✓ With VR learning, users are significantly less distracted as there are no interruptions. VR-trained employees are up to 4 times more focused during their training than standard e-learning peers and 1.5 times more focused than classroom colleagues



Core Competencies

- ✓ Consumer customizable 3D assets, environments, with curated products for specific projects
- ✓ Expertise in animation (2-D and 3-D), virtual reality, augmented reality, mining specific app development, and gamification for improved learner outcomes
- ✓ Client guidance throughout the animation process, synthesizing client 'needs' with 'wants'. This ensures each client understands why they need a particular animation medium over another
- ✓ Technical consultancy and post-deliverable support of assets (updating animation projects), technology (guiding on rollout of AR and VR packages), and scaling up and lateral growth (example: turning an animation into a VR package/game)

Mining Skills Australia can develop animations for any training-based practice for any industry. We are always looking for ways to innovate and integrate new technologies into our body of work, Mining Skills Australia prides itself on its modern integration into training and encouragement of educational material for learning development.



MINING SKILLS AUSTRALIA TRAINING

Mining Skills Australia is a supplier of proficiency and competency-based training programs and resources globally and across Australia. Our products and services are targeted at the development of all mine site personnel through practical on-site training.

To support the training needs of various sites we have a range of equipment specific animations and eLearning resources used in online and tablet-based applications. Mining Skills Australia has found that the suite of animated eLearning resources is working to lessen the knowledge gap when supporting Literacy, Language and Numeracy (LLN) issues in the workplace. The advantage of the animation resources is that they visually and audibly appeal to the learner and allows the context of the task to be demonstrated in real time in various languages.

To support our resources, Mining Skills Australia:

- ✓ Customises training resources through eLearning capabilities for remote locations globally.
- ✓ Trains on-site, new to industry personnel, certified trainers, load and haul supervision, management, and provides machine application and operator training specialists with the tools to implement proficiency and competency-based training programs.
- ✓ Develops and maintains competency-based training resources and packages in line with the Resource, Industry, and Infrastructure (RII) training packages.



- ✓ Contextualises Supervisor and Mine Management Training packages, mapped to Legislative and Industry requirements.
- ✓ Provides access to Production Mine Manager, Open Cut Examiner, Load and Haul Supervisors and Site Senior Executive trainers and mentors with over 50 years' experience in various Open Cut Mines within Australia and Internationally.

Mining Skills Australia believes operator technique standardisation is essential based on the requirements for your mine site. By providing and demonstrating hands on in cab proficiency training, we fine tune production operators across load and haul efficiency awareness ultimately to increase BCM or tonnage per hour for our clientele.

Using our specifically built analytical tool for logging and reporting operator progress, Crew, Supervisors and Training Departments can get real time reports as to operator output for review and intervention.

Mining Skills Australia's Load Haul programs emphasises production unit versus forecast improvements. During the training we complete a real time analysis of the operator. This will be measured against the targeted output required by the client so that improvements or enhancements can be made to the load and haul cycle. Overall, the minimum increase in efficiency in the load and haul cycle is approximately 20%.





Many of these programs have been customised for the requirements of the client, however we are able to supply nationally recognised competency-based training to ensure that learners meet the requirements of your statutory body.





MINING SKILLS AUSTRALIA

EMERGENCY MANAGEMENT

Mining Skills Australia specialize in providing comprehensive emergency response services. Our purpose is to ensure that our clients are operationally prepared and compliant under any Mining Health and Safety Legislation, Recognised Standards and Mining Emergency response guidance notes.

- ✓ Paramedics
- ✓ Emergency Services Officers
- ✓ Emergency Response Crew

We provide consultancy and operational personnel in conjunction with Medical Oversight, Clinical Governance, Credentialling and Drug Licensing which covers everything associated with:

- ✓ Drug management
- ✓ Alcohol and drug testing
- ✓ Credentialling
- ✓ Education
- ✓ Quality Assurance



Mining Skills Australia provide experienced and motivated emergency management teams that are proactive in the pursuit of ensuring the site is prepared for any possible incident by mapping all activities to the mine sites Emergency Management Plan.

Our emergency management teams can be used at any level:

- ✓ Planning
- ✓ Operational phase
- ✓ Strategic planning
- ✓ Site-based reviews of procedures and equipment

Our team are trained and experienced in managing any incidents, treating, or stabilising injuries and illnesses presented in the field. They understand our clients' Occupational Health and Safety strategies and guidelines and ensure our clients' interests are considered in any work-related injuries or illnesses.

Mining Skills Australia can provide a complete Medical Clinic setup incorporating Medical Equipment, Consumables & Medications compliant with all Health Standards.



MINING SKILLS AUSTRALIA EDUCATION

Mining Skills Australia is a Brisbane based supplier of Proficiency and Competency education and blended eLearning resources for the resource industry within Australia and globally.

Mining Skills Australia's Registered Training Organisation (RTO) is the compliancy back bone of the Animation, Virtual Reality, Augmented Reality, Gamification, Application based and Blended eLearning resources.

The RTO Department creates the appropriate documentation, learning material and resources to ensure National Compliancy Standards are met.

This is through collating and producing Mapping Documents, Assessments and Assessor Guides, Study Guides, eLearning Presentations, SCORM files, PowerPoint Presentations, and assisting with Learning Management Systems and uploading course material to these systems.

Mining Skills Australia's RTO Department can also implement animation, augmented reality, virtual reality, gamification, and application-based programs, that are built in house, to complement its training resources and eLearning materials to better support the learner, or for organisation's needs.

HAZARDS IN UNDERGROUND	HAZARDS IN SURFACE	IDENTIFYING POTENTIAL RISKS	DUST CONTROL
<p>Effective, appropriate work procedures and proper cabin sealing are crucial to reducing exposure limits.</p> <ul style="list-style-type: none"> Any task conducted outside of a sealed cabin should be controlled, especially where drilling has just occurred or is occurring (e.g. shot firing). Hazards can also occur especially in areas where fine drill tailings remain on the ground untreated. Other hazards include dust contaminants, fibres, gasses, vapours and bioaerosols. 			



Supporting Mining Skill's Australia's passion for equal education opportunities for all, and a desire to provide employment pathways for those with LLN (Language, Literacy and Numeracy) issues, the RTO Department are enthusiastic in creating accessible, easy-to-use, compliant training and eLearning resources, that gives everyone the ability to achieve employment, normally unattainable.

This has been demonstrated through a few examples with Mining Skills Australia working with communities in Africa, Papua New Guinea, and South America, where these communities would not have otherwise had opportunity to gain employment or education opportunities if there was not knowledge and interactive blended training provided.

Currently Mining Skills Australia is also working with Indigenous Communities and Diversity and Inclusion programmes in Central Queensland and the Northern Territory providing meaningful, knowledge-based training and positive life-skills programs creating long term employment outcomes and opportunities within these groups, even in remote communities.

Mining Skills Australia is proud to note real time success stories of higher employment and retention rates for women and indigenous populations after the implementation and delivery of MSA's training and eLearning resources.

Mining Skills Australia believes that the future in compliancy, proficiency and equipment training is through the combination of digital media technologies and simulation, backed by compliant and professional eLearning resources, which are easily accessible for the learner and the trainer simultaneously.

Post pandemic research shows that on average, students **retain 25-60%** more material when learning online compared to only **8-10%** in a classroom

VET and higher education lead to higher levels of employment and employment pathways



MINING SKILLS AUSTRALIA

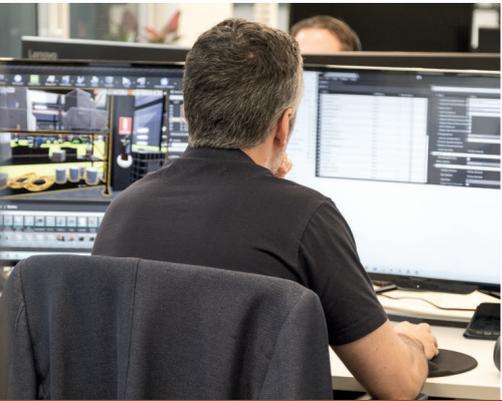
TECHNICAL SERVICES

At Mining Skills Australia, we offer selected consultancy services and training with the Geotechnical fields encompassing:

Our experienced industry professionals specialize in Open Cut and Underground mining methods and have significant experience in bulk commodities, such as Thermal and Metallurgical Coal and Iron Ore. In addition, we have experience and highly capable of providing exceptional engineering solutions for several other commodities including Diamonds, PGM's, Base Metals and Rare Metals.

Our services suit all Mine Planning facet from short term site support roles, remote support for design and scheduling duties, through to strategic planning projects including pit optimisation and LOM planning.





Our Capabilities Focus on:

Tactical Mine Planning

- ✓ Truck Shovel Design
- ✓ Dragline Design
- ✓ Short-, Medium- & Long-Term Scheduling
- ✓ Drill and Blast Design
- ✓ Dozer Push Optimisation

Technical Training Workshops

- ✓ Fundamentals of Short-Term Planning
- ✓ Fundamentals of Mine Geology / Pit Geology
- ✓ Fundamentals of Medium-Term Planning and Scheduling

Strategic Mine Planning

- ✓ Life of Mine Design and Optimisation (LOM)
- ✓ Pit Optimisation
- ✓ Feasibility Analysis & Sensitivity Analysis
- ✓ Mixed Integer Linear Programming (MILP) Model Scheduling



MINING SKILLS AUSTRALIA **DRILL AND BLAST**

We provide drill and blast consulting services to the surface and underground mining industries to improve the safety, technology and optimisation of the drill and blast process.

These include:

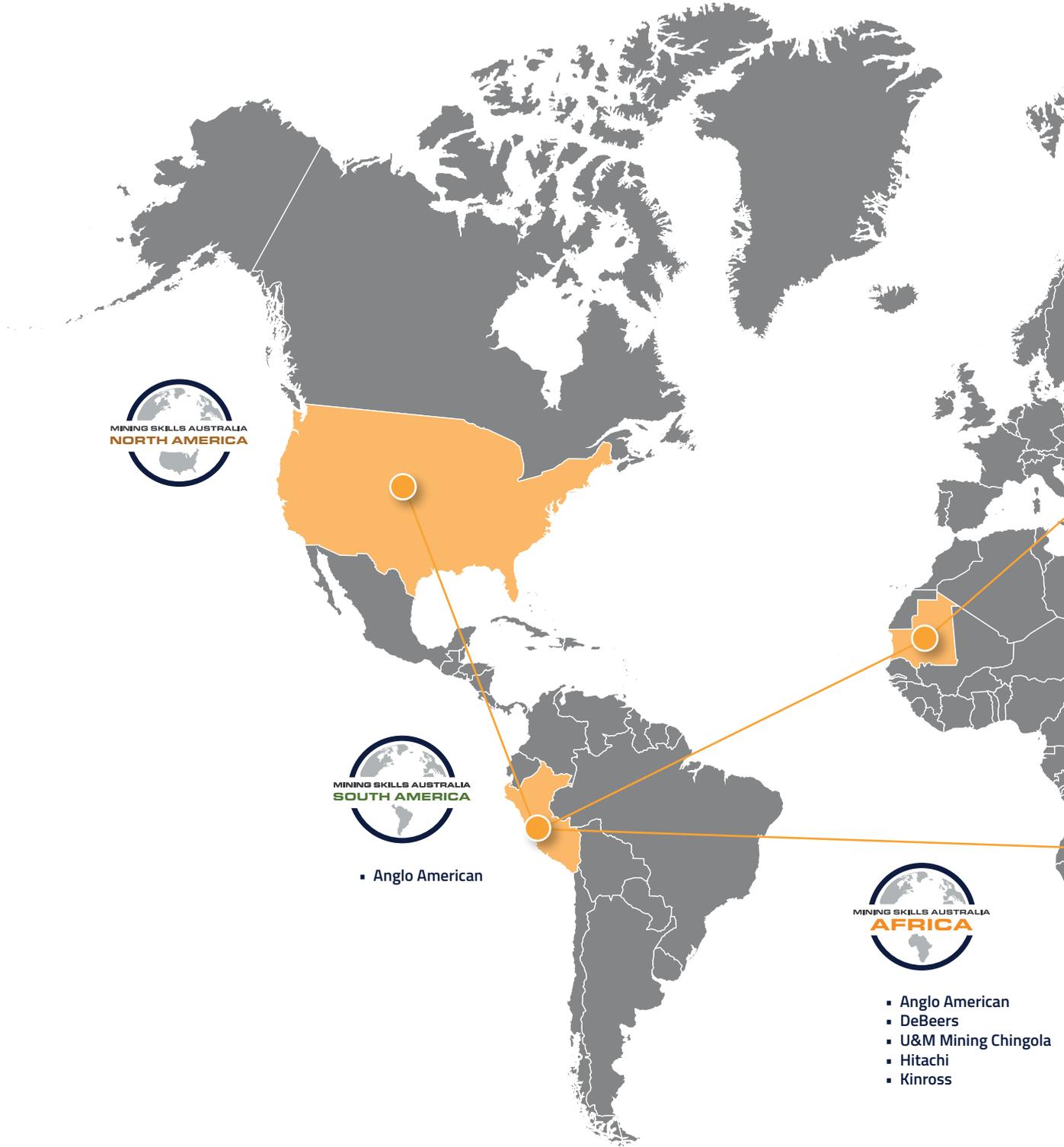
- ✓ Blast design and planning
- ✓ Explosive characteristics and product selection
- ✓ Detonation and fragmentation optimisation
- ✓ Safety, environment, and community relations
- ✓ Software solutions
- ✓ Blast crew mentoring
- ✓ Drill rig proficiency training
- ✓ MPU Skills Development

Our focus is providing technical solutions to assist our client's operations to perform optimally at all levels, generating sustainable downstream processing efficiency, cost savings, safety enhancement and productivity gains.



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GLOBAL TRAINING SERVICES





- Ferrexpo (Hitachi)
- Aktogay Mine



- Hexindo (Hitachi Mining)
- Lihir Gold
- Ok Tedi
- PT SIS (Saptaindra Sejati)

OCEANIA

- | | |
|----------------------------|------------------------|
| ▪ Alcoa | ▪ Iluka Resources |
| ▪ Anglo American | ▪ Liebherr |
| ▪ Cable Price (Hitachi) | ▪ Mackellar Mining |
| ▪ Batch Fire | ▪ Macmahon |
| ▪ Bengalla Mining | ▪ Middlemount Coal |
| ▪ BHP Iron Ore | ▪ Middlemount South |
| ▪ BMA Coal | ▪ Redpath Mining |
| ▪ Downer Mining | ▪ Rio Tinto Iron Ore |
| ▪ Glencore | ▪ Silverlake Resources |
| ▪ Goldings Contractors | ▪ Thiess |
| ▪ Hitachi | ▪ Whitehaven Coal |
| ▪ HSE Mining | ▪ Yancoal |
| ▪ EPSA Isaac Plains | ▪ Perenti - Barmingo |
| ▪ Mineral Resources United | |



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MINING SKILLS AUSTRALIA
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MINING SKILLS AUSTRALIA
TECHNICAL
SERVICES



MINING SKILLS AUSTRALIA
DRILL AND BLAST

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