

Mesong Holding Mine Blasting Capability Statement

At Mesong Holding, we are steadfast proponents of environmentally conscious mining – an approach which embodies our core values. Modern mining, defined as the extraction of Earth's resources for economic purposes, is best practiced when tethered to environmental responsibility. In South Africa, the shift of mining activities from remote expanses to peri-urban regions has underscored the need for heightened awareness, diligence and unwavering adherence to the Mine Health and Safety Act. As a result, our philosophy hinges on meticulous planning, efficiency, professionalism, and safety, all while minimising our ecological footprint.



1 Pre-blast structural and community census surveys:

We conduct a thorough environmental assessment of the mining area up to 2 km from the mine boundary, per the DMRE directives. We perform aerial surveys via both manned and unmanned vehicles to create detailed orthophotos. We also conduct census surveys to cover social aspects. This comprehensive assessment enables us to identify ecologically sensitive zones, wildlife habitats, and any potential risks to surrounding ecosystems.



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2 Strategic positioning of environmental monitors:

We use a predictive assessment algorithm to identify the best locations for blast-induced noise and ground vibration monitors. This ensures that the monitors are correctly positioned to measure the hazards and provide feedback to the mine to introduce or improve controls. This assists us to balance our efficiency goals with the commitment to environmental preservation.



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3 Blast designs:

Our blast designs espouse environmentally friendly systems. Guided by the triple bottom line principle – People, Planet, and Profitability (PPP) – we merge scientific research and site-specific conditions. This equilibrium between effective blasting and ecological responsibility exemplifies our pioneering approach.



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4 Advanced blast induced noise and ground vibration Monitoring:

Blast-induced noise and ground vibration are two pronounced side effects of mining activities. Acknowledging their potential impact, we conduct real-time monitoring during blasting. Staying within secure thresholds, safeguards nearby structures, wildlife habitats, and communities - reinforcing our unwavering focus on safety.



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5 Regulatory Adherence:

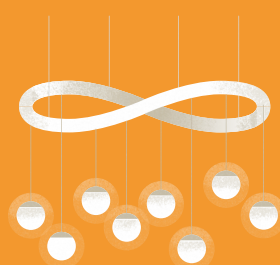
Our process adheres rigorously to all local and national regulations pertaining to blasting activities. We ensure compliance with safety standards, environmental guidelines, and community considerations.



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6 Continuous Improvement and Innovation:

We believe in continuous improvement. Our process is a living entity that evolves with advancements in technology and best practices. We continuously seek innovative solutions to enhance our efficiency, professionalism, safety measures, and environmental consciousness.



At Mesong Holding, our process for mine blasting is a holistic journey which marries efficiency, professionalism, safety, and environmental stewardship. We recognise that responsible mining is not only beneficial for mining operations but also contributes to a sustainable world for generations to come.



**MESONG
HOLDING**

Efficient. Professional. Safe.

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Our Offerings:

Blast Monitoring & drone services

Our blast monitoring solutions provide a comprehensive framework to capture and analyse critical data, enabling the quantification of overall blast performance while our drone services contribute to informed decision-making by enabling a strategic and efficient approach to mine blasting operations.



Our Services Include:

- Blast-induced noise and seismicity monitoring (Seismographs)
- Velocity of Detonation Measurements (Explosives quality and performance)
- High speed filming (Rock Response Times - Tmin)
- Drone Video footage
- Seismographs Calibration for quality assurance of blast induced noise and

“ONE CANNOT MANAGE WHAT ONE CANNOT MEASURE”



Consulting Services

We specialise in overall blast optimisation through comprehensive data analysis and industry insights to enhance operational efficiency. We provide in-depth analysis and strategic recommendations to address diverse challenges relating to Blasting. Our services ensure legal compliance while fostering a safe and sustainable mining environment.

We dedicate our time, skills and expertise to providing integrated safety enhancing services in the mining industry.

Our Services Include:

- Blast investigations
- Pre blast and census surveys
- Overall Blast optimization
- Mining Studies & Reports (CPR)
- General and specific consulting
- Mine Legislative consultation on legal compliance issues

Provision of MQA Accredited Programmes

Our hands-on instructor-led programmes equip mining personnel with the essential knowledge and expertise necessary to navigate potential hazards and promote a culture of safety. Our training courses adhere to industry standards and provide skills and awareness required to maintaining a safe mining environment.



Our Services Include:

- MQA accredited skills:
 - Occupational Health and Safety
 - Blasting Assistant
 - Handling of Explosives in Mines
 - Competent Person A
- Certificate of attendance:
 - Introduction to 4th Industrial Revolution in mining
 - Security of Explosives in the mine
 - Environmental Conscious Blast Design

Our commitment to safety in mining extends to our provision of accredited skills programmes.



Management Services

Our Mine Management Services encompass a comprehensive suite of solutions aimed at optimising overall mining operations. From strategic planning to daily execution, our seasoned team collaborates with clients to enhance efficiency, productivity, and safety.

Our Services Include:

- Explosives Responsible Person Services
- Mine Management Services