



NOISE AND VIBRATION PROCEDURE

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TABLE OF CONTENTS

1	PURPOSE
2	SCOPE
3	LEGISLATIVE REQUIREMENTS 4
3.1	Acts and Regulations
3.2	Environmental Acts and Regulations4
3.3	INTERNATIONAL ORGANISATION STANDARDISATION (ISO)5
4	DEFINITIONS
4.1	CONTRACT DEFINITIONS
4.2	ACRONYMS
4.3	Personal Acronyms
5	ENVIRONMENTAL MANAGEMENT SYSTEM
5.1	OVERALL SCOPE
6	EMS POLICY
6.1	ENVIRONMENTAL POLICY
6.2	ENVIRONMENTAL POLICY STATEMENT
7	ROLES AND RESPONSIBILITIES
7.1	Project Responsibilities9
8	GOVERNANCE
8.1	GOOD GOVERNANCE
9	CONTINUOUS IMPROVEMENT 14
9.1	OPPORTUNITIES FOR IMPROVEMENT14
9.2	MANAGEMENT COMMITMENT AND PARTICIPATION14
9.3	Environmental Accountability14
9.4	SEEKING CONTINUOUS IMPROVEMENT
10	NOISE AND VIBRATION PROCEDURE
10.1	NOISE MANAGEMENT RESPONSIBILITIES
10.2	NOISE MITIGATION
10.3	PROJECT VIBRATION
10.1	VIBRATION MITIGATION
10.2	MONITORING AND MEASUREMENT
11	TRAINING REQUIREMENTS
11.1	TRAINING MAINTENANCE
12	PROCEDURE REVIEW
12.1	3 YEARLY REVIEW
13	REFERENCE DOCUMENTS
13.1	STANDARDS



13.2	EMS MANAGEMENT PLANS	19
13.3	EMS POLICIES	19
13.4	EMS PROCEDURES	19
13.5	EMS REGISTERS	20
13.6	EMS Forms	20

1 PURPOSE

The purpose of the procedure is to reduce the risk of injury or incident during the loading or unloading of material, plant and equipment and other tasks during project activities and details the process to ensure all Workers fully understand their responsibilities and necessary actions required to safely manage Noise and Vibration.

2 SCOPE

This procedure applies to all Mount Morgan Gold Mine, functions and project within the responsibility of Heritage Minerals, including Mine Maintenance, Construction and Mining Operation. All Risks associated with this Procedure will be assessed and controlled in accordance with the Hierarchy of Control ISO 31000

3 LEGISLATIVE REQUIREMENTS

3.1 Acts and Regulations

- Qld Work Health Safety Act 2011.
- Qld Work Health Safety Regulations 2011.
- Qld Mining and Quarrying Safety and Health Act 1999.
- Qld Mining and Quarrying Safety and Health Regulation 2017
- Qld Workers Compensation and Rehabilitation Act 2003.
- Qld Workers Compensation and Rehabilitation Regulation 2014.
- Qld Electrical Safety Act 2002.
- Qld Electrical Safety Regulation 2013.
- Qld Heritage Act 1992.
- Qld Building Act 1975; and
- Fair Work (Commonwealth Powers) and Other Provisions Act 2009.

3.2 Environmental Acts and Regulations

Heritage Minerals has a suite of Environmental and Federal legislative obligations which shall be met through the adoption of best practices outlined in this Environmental Management Plan. Below provides a summary of applicable key legislation including:

- Qld Environmental Protection Act 1994.
- Qld Environmental Protection Regulation 2019.
- Qld Aboriginal Cultural Heritage Act 2003.
- Qld Coastal Protection and Management Act 1995.
- Qld Coastal Protection and Management Regulation 2017.
- Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.
- Qld Fisheries Act 1994.
- Qld Planning Act 2016.
- Qld Biosecurity Act 2014.
- Commonwealth Native Title Act 1993.
- Qld Native Title Act 1993.
- Qld Nature Conservation Act 1992.





- Qld Nature Conservation Regulation (Animals) 2020.
- Qld Nature Conservation Regulation (Plants) 2020.
- Qld Heritage Act 1992.
- Qld Heritage Regulation 2015.
- Qld Vegetation Management Act 1999.
- Qld Vegetation Management Regulation 2012.
- Qld Water Act 2000.
- Qld Water Regulation 2016.
- Qld Environmental Protection Regulation 2019.
- Qld Environmental Protection (Noise Policy) 2019.
- Qld Environmental Protection (Water and Wetland Biodiversity Policy) 2019; and
- Qld Environmental Protection (Air policy) 2019.

3.3 International Organisation Standardisation (ISO)

- ISO 45001:2018 Occupation Health and Safety Management Systems,
- ISO 14001:2015 Environmental Management Systems.
- ISO 9001:2015 Quality Management Systems; and
- ISO 31000, 2019 Risk Management.

4 DEFINITIONS

4.1 Contract Definitions

Term:	Definition:
Environmental Aspect	An environmental aspect is defined in ISO 14001 as an element of an organisation's activities, products or services that can interact with the environment.
Principal	Landowner or current holder of the mining lease.
Project	The Mount Morgan mine exploration and care and maintenance activities.
Heritage Minerals Pty Ltd	Contractor for this project.
Contractor	Contractor means the Company, Business or Organisation bound to execute the work under the contract. The term Contractor is used within this document to indicate the party responsible to perform the scope of works. No other legal or contractual meaning is implied and on this project Heritage Minerals is the Contractor.
Sub-Contractor	Any person engaged by the Contractor to perform any work under contract, including a supplier, consultant or any approved Sub-Contractor, but not including a Worker of the Sub-Contractor.
Contract	Contract means the agreement between Heritage Minerals and the lease holder to perform the works outlined in the Scope of Work.
Worker	A Worker is a person who performs work in any capacity for a business or undertaking including any personnel employed, labour hire personnel,

Doc:	HM-MMM-ENV-PRO-008-R0A-Noise & Vibration	Rev Date:	01/11/2020	Rev No.:	0A	Page:	5 of 21	
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HERITAGE MINERALS	Noise and Vibration Procedure
	volunteers, work experience students, Contractors, Workers of Contractors, apprentices, trainees and outworkers. Note: a 'person' in this context can include a whole business or government agency.
Competent Person	- A competent person is any person who has acquired through training a qualification or hold the experience the knowledge and skills to carry out the tasks in accordance with the Scope of Work and has been verified competent with a certified qualification.
Visitor	A Visitor is a person who attends the project who shall not conduct any work practises and be escorted by a fully inducted person at all times.
Project	A project is where work is carried out for a business or undertaking and includes a place where a Worker goes, or is likely to be, while at work.
Reasonably Practicable	 According to the Qld WHS Act 2011 and the Qld WHS Regulation 2011, reasonably practicable means that which, or was at a particular time, reasonably able to be done in relation to ensuring Health and Safety, taking into account and weighing up all relevant matters including: The likelihood of the Hazard or Risk concerned occurring. The degree of harm that might result from the Hazard or Risk. What the person concerned know, or ought reasonably to know about. The Hazard or Risk; and Ways of eliminating the Risk. The availability and suitability of ways to eliminate or minimise the Risk. After assessing the extent of the Risk and the available ways of eliminating or minimising the Risk, including whether the cost is grossly disproportionate to the Risk.
Stakeholder	 A stakeholder is intended to encompass all parties who have a legitimate interest in the project. They may include: Government Authority. Contractors. Workers. Interest groups. Community organisations. General public or Visitors the project. Consultants. Landowners. Client; and Persons or businesses affected by the development.
Aspect	Aspect means those elements of Heritage Minerals activities, products or services that can interact with the environment can or does interact with the

HERITAGE MINERALS	Noise and Vibration Procedure
	environment and may have a significant impact. These interactions and their effects may be continuous in nature, periodic, or associated only with events, such as emergencies.
Impact	Impact is a change to the environment, whether adverse or beneficial, wholly or partially resulting from the organisations aspects
Environmental Objective	An environmental objective refers to the overall environmental aim, arising from the elements of the environmental policy, that an organisation sets itself to achieve.
Environmental Target	Environmental target refers to the detailed performance requirement, quantified where practicable, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
Must	Means when the requirement is documented it is mandatory; and deviation shall constitute non-compliance by law.
Shall	Means when the requirement is documented it is mandatory; and deviation shall constitute non-compliance by law.
Should	Indicates the requirement is recommended or expected.
Мау	Indicates that the requirement is optional or at the person's discretion.

4.2 Acronyms

Acronym:	Definition:
нм	Heritage Minerals
EA	Environmental Authority
HSEQ	Health, Safety, Environmental and Quality
WHS	Work, Health and Safety
PCBU	Person Conducting a Business or Undertaking.
EPA	Environment Protection Act
DERM	Department of Environment Resources
EMS	Environmental Management System
ЕМР	Environmental Management Plan
EIS	Environmental Impact Statement
PRA	Project Risk Assessment
HAZID	Hazard Identification
SDS	Safety Data Sheet
SWMS	Safe Method Work Statement.
JSEA	Job Safety and Environmental Analysis
VOC	Verification of Competency.

Doc:	HM-MMM-ENV-PRO-008-R0A-Noise & Vibration	Rev Date:	01/11/2020	Rev No.:	0A	Page:	7 of 21	ĺ
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HERITAGE MINERALS	Noise and Vibration Procedure	GH
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ICAM	Incident Causal Analysis Method
NCR	Non-Compliance Report

4.3 Personal Acronyms

Acronym:	Definition:
CEO	Chief Executive Officer
SSE	Site Senior Executive
HSEQM	Health, Safety, Environmental and Quality Manager
SUP	Supervisor
WRK	Worker
VIS	Visitor

5 ENVIRONMENTAL MANAGEMENT SYSTEM

5.1 Overall Scope

The Environmental Management System (EMS) is to be used for the management and control of the Operation. The Environmental Management System is a hierarchical system of documentation with the primary objective to manage Risk, Environmental aspects of the Operation. It represents a framework and documentation that will be utilised by Heritage Minerals and Contractors in the delivery of the Operation.

This Environmental Management Plan contains the main elements of the environmental management for the Project. The interaction and reference to related documents described in this Environmental Management Plan includes but is not limited to:

- Environmental Policy.
- Environmental Management Plan.
- Environmental Procedures.
- Guidelines.
- Training Material; and
- Registers, Forms and Records.

6 EMS POLICY

6.1 Environmental Policy

The Heritage Minerals Environmental Policy is the principal document of this Environmental Management Plan. All health, safety and in particular environmental objectives, targets and practices are to be consistent with the commitments set out in the policy. The policy is to be communicated to all project Workers, including sub-contractors and where requested, be displayed and introduced during Worker inductions.

Heritage Minerals Environmental Policy describes and confirms the Heritage Minerals commitment to sound environmental management on the Project. Heritage Minerals is committed to sustainable development and recognises that the long-term sustainability of the Heritage Minerals is depended upon good stewardship in

Doc:	HM-MMM-ENV-PRO-008-R0A-Noise & Vibration	Rev Date:	01/11/2020	Rev No.:	0A	Page:	8 of 21	
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both the protection of the environment, and the efficient management of the exploration and extraction of mineral resources.

6.2 Environmental Policy Statement

HERITAGE MINERALS	Environn	nental F	Policy			GHD
HERITAGE MINERALS						
Meritage Minerals Pty Ltd (the "Corporation") is committed to sustainable development and we recognise that the long-term sustainability of our business is dependent upon good stewardship in both the protection of the environment and the efficient management of the exploration and extraction of mineral resources. Our values and business principles as a Corporation are based on a "zero harm" environmental management performance; they underpin our environmental policy and represent the minimum guidelines for the Corporation in this respect. We will ensure that directors, officers, employees and contractors are aware of this policy as well as the relevant responsibilities which it sets out.						
 We are committed to complying with relevant industry standards relating to the management of environmental risks, including the International Finance Corporation's ("IFC") Performance Standards; the IFC and World Bank Environmental, Health and Safety Guidelines; and the International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold. 						
 We are committed to establishing and maintaining management systems to identify, monitor and control the environmental aspects of our activities. Where appropriate, we may require employees to undertake training to ensure they are complying with best industry practices and all applicable environmental laws, regulations and requirements. 						
We will ensure that re	 We will ensure that resources are available to meet our reclamation and environmental obligations. 					
	our employees and contractors carr and the industry standards we are	-		s in accorda	ance with	this
	cal representatives in the communi bligations associated with our activi		we operate	to educate	the comm	unity on
 We will conduct audits to monitor, measure and evaluate the effectiveness of our environmental management systems, and will communicate findings to the Safety, Health & Environment Committee of the Board of Directors, and, where appropriate, to external stakeholders. We will strive to increase transparency in our annual public disclosure on environmental matters, particularly those relating to risk management systems in place and mitigation of environmental risk. 						
 We are committed to environmental aspect 	transparent communication and c ts of our activities.	onsulting wit	h interested	and affecte	ed parties	on
	inually improve our environmental y efficiency and reducing emissions e operate.			-	_	
 We recognise the increasing awareness within our industry of climate change and the need to participate I solutions that address the long-term impact of climate change, including where feasible, the reduction of green- house gas emissions. In particular we recognise the sensitivity around water management and water scarcity, where we will aim to constantly improve water management systems and their efficiency, and to monitor our usage of water resources in our areas of operation. 						
The Board of Directors of the Corporation will review and evaluate this Policy on an annual basis to determine its efficacy. This Policy will be posted on the Corporation's website. Additionally, a copy of the policy will be posted at mine sites operated by the Corporation.						
Heritage Minerals Repres	entative: Malcolm Peterson					
Position:	Chief Executive Office	r (CEO)		- НЕ	RITA	GE
Signature:	11		- 4	MIN	ERALS	
Date:	07/12/2020					
Doc No.: HM-MMM-ENV-POI	L-001-R0A-Environmental	Rev Date:	01/11/2020	Rev No.:	OA Page	< 1 of 1

7 ROLES AND RESPONSIBILITIES

7.1 Project Responsibilities

Position:

Definition:

PCBU

A person conducts a business or undertaking when:

 Whether the person conducts Heritage Minerals or undertaking alone or with others; and

• Whether or not Heritage Minerals or undertaking is conducted for profit or gain.

And must:

• Providing the provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of Heritage Minerals or undertaking.

A business or undertaking conducted by a person includes a business or undertaking conducted by a partnership or an unincorporated association. If a business or undertaking is conducted by a partnership, other than an incorporated partnership, a reference in the WHS Act to a person conducting Heritage Minerals or undertaking is to be read as a reference to each partner in the partnership.

A person does not conduct a business or undertaking to the extent that the person is engaged solely as a Workers in, or as an Officer of, that business or undertaking. An elected member of a local government does not in that capacity conduct a business or undertaking.

A regulation may specify the circumstances in which a person may be taken not to be a person who conducts a business or undertaking for the purposes of the WHS Act or any provision of the WHS Act. A volunteer association does not conduct a business or undertaking for the purposes of the WHS Act. Volunteer association means a group of volunteers working together for 1 or more community purposes where none of the volunteers, whether alone or jointly with any other volunteers, employs any person to carry out work for the volunteer association.

Officers Under section 27 of the WHS Act, a PCBU has a duty or obligation under WHS legislation, an Officer of the PCBU must exercise 'due diligence' to ensure that the PCBU complies with the duty or obligation.

The Officer's obligation of due diligence relates to any duty or obligation that the PCBU may have under the WHS Act or WHS Regulations and is therefore potentially extensive in scope. However, a definition of 'due diligence' is provided, which may help an Officer in finding practical ways to comply with the duty. In particular, section 27 (5) defines 'due diligence' as including taking reasonable steps including:

- To acquire and keep up-to-date knowledge of work health and safety matters.
- To gain an understanding of the nature of the operations of the PCBU's business or undertaking and generally of the hazards and risks associated with those operations.
- To ensure that the PCBU has available for use; and uses, appropriate resources and processes to eliminate or minimise risks to health and safety from work Company Vehicle out as part of the conduct of Heritage Minerals or undertaking.
- To ensure that the PCBU has appropriate processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way of that information.
- To ensure that the PCBU has; and implements, processes for complying with any duty or obligation of the PCBU under WHS legislation; and

HERITAGE MINERALS		Noise and Vibration Procedure	GHD
	Further as for compl under sec Repo Cons Ensu Safet Ensu Safet taking the	erify the provision and use of the resources and processes referred to eding dot points. ssistance for Officers appears in examples at the end of section 27. The lying with duties and obligations that the PCBU shall have in place and ction 27 (5) (e) may include processes for: orting notifiable incidents. sulting with Workers. ring compliance with notices issued under WHS legislation. rring the provision of training and instruction to Workers about work ty; and rring that health and safety representatives receive their entitlements to on 27 (5) definition of 'due diligence' is inclusive, rather than exclusive e specified steps does not guarantee compliance with the duty of due taking those steps is likely to ensure compliance in most cases.	e processes implement health and to training. re. As such,
Managers	 Char stror Lead Ensu perso Prov Plan. Estal Man Impleimpr Thor have Com proc man. Ensu and a Ensu avail Com 	s are responsible for: npion the implementation and measurement of this Management Plan ng leadership and absolute commitment to HSEQ throughout the proje- by example, modelling the behaviour expected from all personnel on t re all works are conducted in a way that ensures the health and safety o onnel, the community and in general, the Environment. ide adequate resources and budget for the implementation of this Ma olish clear responsibility and accountability for implementatio agement Plan. ement change culture in accordance with project requirements for ovement. oughly overview all investigations of all incidents, ensuring that correct been implemented to prevent a reoccurrence. ply with all legislation requirements and Heritage Mineral's per edures. Taking accountability of the effectiveness of the env agement system. ring that the environmental policy and environmental objectives are or are compatible with the strategic direction and the context of the orga ring the integration of the environmental management system require tage Minerals processes. ring that the resources needed for the environmental management able. municating the importance of effective environmental management able.	ct. the project. f all project anagement n of this continuous tive actions blicies and ironmental established nisation. ements into system are

	Noise and Vibratio	on Procedure	GHD
	 Ensuring that the environmental mana outcome(s). Directing and supporting persons to c environmental management system. Promoting continual improvement; and Supporting other relevant management management relevant management management relevant management relevant managemen	contribute to the effectivene	ess of the
Supervisors	applies to their areas of responsibility.		
Supervisors	 upervisors are responsible for: Ensure all Workers under their guidance, Management Plan, associated project plans and fully carry out their responsibilities for l Lead by example and work towards achieving 	and procedures so they underst HSEQ.	•
	 Be familiar with; and enforce, work health an Mineral's projects within their area of resp practicable, the safety and wellbeing of the 	ponsibility to ensure, as far as	-
	 Establish, maintain, comply and review with all lawful instructions by Heritage Mineral N 		ake 5's and
	 Implement culture change in accordance continuous improvement. 	with Heritage Mineral require	ements for
	 Ensure all injuries and incidents are reporte happen in relation to their crews, ensuring prevent a reoccurrence. 		
	 Ensure compliance with Heritage Mine management policies and procedures. 	eral workers compensation	and injury
	 Ensure that all Workers under their super maintain the personal protective equipmen 		trained to
	 Plan the work and organise the work zone personal injury or adverse effects on equipr 		nout risk of
	 Facilitate Pre-Start / Toolbox Meetings; and and closed out. 	ensure corrective actions are for	ollowed up;
	 Carry out daily informal site inspections ar wellbeing of Workers. 	nd initiate action to ensure the	safety and
	Participate in documented project inspection	ins.	
	Conduct minimum of one HSEQ Audit mont	hly and record; and	
	 Ensure communication and consultation t matters. 	akes place on health and saf	ety related
Workers	/orkers are classified as any person who carr /orkers must:	y out work, in any capacity, f	or a PCBU.
	 Participate in hazard identification and c preparation. 	or elimination activities such a	as SWMS's

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- Regard safety as a central theme in their actions and take reasonable care to ensure their own health and safety and the health and safety of others.
- Ensure that the correct tools and equipment are used for the job.
- Use the HSEQ equipment and protective clothing supplied as appropriate and trained.
- Maintain tools and equipment in good condition.
- Report any defects in plant or equipment to the Supervisor.
- Avoid any improvising task that involves risk.
- Warn other Workers of known hazards and report IMMEADIATLEY to their Supervisor.
- Actively participate in Heritage Mineral's HSEQ Programs.
- Report to their Supervisor all incidents IMMEADIATLEY.
- Participate in the necessary Incident investigation if required to do so.
- Follow all lawful instructions by their Supervisor; and
- At all times comply with the relevant guidelines formulated and disseminated through induction, pre-start / toolbox meetings; and daily site instructions.

8 GOVERNANCE

8.1 Good Governance

Broadly, good governance is about the processes for making and implementing decisions and trying to achieve the best possible process for making those decisions. The Environmental Management System (EMS) provides the framework for good Health, Safety, Environmental and Quality governance, it provides instruction and guidance on how to manage and execute a project in terms of Health, Safety, Environmental and Quality Management.

The Environmental Management System provides the HSEQ Team with the tools to successfully manage the Environmental Aspects of Heritage Minerals and their Stakeholders. This framework shall also enable Heritage Minerals to plan and execute the project with the required Quality, efficiency and cost effectiveness. Most importantly, it allows Heritage Minerals to manage the Environmental Aspects of its people and the Environment in which the project is set.

Heritage Minerals project governance incorporates not only all the Management System including Management Plans, Policies, Procedures and forms outlined in the Health, Safety, Environmental and Quality Management processes at the activity or task-based levels in the Environmental Management System, including:

- Incident reporting.
- Change Management.
- Inductions.
- Complaints reporting.
- HSEQ Inspections.
- HSEQ Audits.
- Permits.
- Continuous improvement: and
- These processes provide the Management and control capabilities at the activity and task level.

Doc:	HM-MMM-ENV-PRO-008-R0A-Noise & Vibration	Rev Date:	01/11/2020	Rev No.:	0A	Page:	13 of 21
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9 CONTINUOUS IMPROVEMENT

9.1 Opportunities for Improvement

Heritage Minerals has Procedures which explain the method of planning and implementing the monitoring, measurement, analysis and improvement processes necessary for:

- Demonstrating compliance with the Health, Safety, Environmental and Quality requirements including the Consultation and Communication Procedure and processes.
- Ensuring Health, Safety, Environmental and Quality compliance by carrying out internal HSEQ Audits and Inspections according to the project Audit and Inspection Schedule.
- Improving the efficiency and effectiveness of the Environmental Management System within the Environmental Management System by the application and monitoring of the methods explained in the change Management process and the implementation of continuous improvement processes.
- Ongoing checks and reviews are conducted in order to ensure the capacity of the processes to reach the results planned, as well as the applicable legal and regulatory requisites, have been fulfilled.
- The degree in which the objectives have been reached depending on each of the process indicators is checked and if necessary when the planned results are not achieved, to establish corrective and or preventive actions, which ensure project compliance. Ongoing reporting of compliance is provided in the monthly project Reports; and
- Final reporting of all Health, Safety, Environmental and Quality Assurance, Risk Management, cost and scheduling shall be included in the Monthly project report that provides aggregated data on all criteria for review by the Senior Management Team in the Monthly Management Review Meetings.

9.2 Management Commitment and Participation

Heritage Minerals is committed to the Environmental wellbeing of all project aspects on the project and shall demonstrate leadership in achieving the highest attainable standards on the project's Environmental protection.

The Heritage Minerals project Management team engages through consultation and communication with Stakeholders and their personnel participating in the project to commit to Environmental principles and core values.

All Heritage Minerals team members shall participate in daily Pre-Start / Toolbox meetings, Inspections and Audit forums in line with the expectations of Key Stakeholders, this process shall be informed of their duties and participation shall be monitored throughout the project's lifecycle.

9.3 Environmental Accountability

Implementation of this Construction Environmental Management Plan requires clearly defined delegation of responsibilities, accountabilities and authorities. All Heritage Minerals Stakeholders involved in the management and daily onsite construction activities of the project shall have a general Environmental duty of care as defined in the Environmental Protection Act 1994, "no person must undertake an activity that causes or is likely to cause Environmental harm unless they take all reasonable and practicable measures to prevent or minimise such harm".

9.4 Seeking Continuous Improvement

Continuous improvement isn't about setting a high pace. It's about finding a rhythm that works for Heritage Minerals, it's about changing everyone's mindset to a systematic way of finding better ways to do things. Finding out how to work better as a team.

Showing our Workers that are important and that their thoughts, ideas and questions all matter. Everything shall be more fun if you get your team to take a greater interest in Heritage Minerals results and achievements, instead of just the individual members' goals. Employ the KISS principle, "Keep It Super Simple".

10 NOISE AND VIBRATION PROCEDURE

10.1 Noise Management Responsibilities

It is the responsibility of all Heritage Minerals management, including sub-contractors, to ensure that noise levels are kept to a minimum whilst working on site. Heritage Minerals Management are responsible for ensuring that this management Noise and Vibration procedure is implemented and the conditions of the approvals are adhered to throughout all stages of operations. The roles and responsibilities of key personnel with respect to noise and vibration management during construction are outlined below.

No.:	Task:	Occurrence:	Responsibility:
1.	Use consultation procedure with stakeholders	Prior to commencement of works and throughout the duration of the project	Project Manager
2.	Prepare and distribute formal correspondence to residents and other affected locals informing them of the timing of planned works	Prior to commencement of works	Project Manager
3.	Initial monitoring of plant and equipment for noise	As plant begins work on site	HSEQ Team / Supervisor
4.	Assess likely noise levels resulting from operational activities	For each new activity (comparison with the activities and noise levels outlined in this procedure)	Project Manager
5.	Consider reasonable and practicable mitigation for each noisy activity	For each new activity	HSEQ Team / Project Manager
6.	Confirm mitigation for each noisy activity as deemed appropriate	For each new activity	Project Manager
7.	Provide induction training for sub- contractors (including noise considerations)	Prior to sub-contractors working on-site	HSEQ Team



8.	Specify required noise mitigation measures to sub- contractors	Prior to sub-contractors working on site and for each new activity	Project Manager
9.	Implement noise mitigation measures	Daily	Project Manager
10.	Monitor noise levels at sensitive receptors	In response to a complaint	Acoustic Consultant
11.	Record noise monitoring results in complaints register	After monitoring	Acoustic Consultant
12.	Receive complaints / comments from local residents	As required	Project Manager
13.	Implement complaints register	As required	Project Manager
14.	Respond to complainant with accurate information	As required	Project Manager
15.	Provide EA with the details of the complaint and the response actions	As required	Project Manager

10.2 Noise Mitigation

Noise management must comply with AS 2436 'Guide to Noise Control on Construction, Maintenance and Demolition Sites' and the Qld Environment Protection (Noise) Policy 2019. This includes:

- Warning signs must be set up in active work areas, prohibiting entry to persons without hearing protection.
- Information regarding contact details for construction complaints must be made available to Council and the public. It is recommended that contact numbers for information and complaints are well advertised and included in clear large signs at the sites.
- Prior warnings are to be provided in the form of notification letters to potentially effected premises where noise levels are expected to be higher than the noise levels nominated in the document.
- All non-conformances and noise related complaints must be reported to the Project Manager and must be documented in the complaints register.
- Following complaints, the source of any excessive noise must be identified and work practices modified or re-scheduled to reduce or eliminate the risk of future events. The complainant must be contacted with details of the measures undertaken to minimise the noise impact, including expected completion time for specific activities.
- All noisy plant must be located away as far as possible to maximise the distance between the noise source and Workers.
- Plant known to emit highly directional noise must be orientated, where possible, so that the noise is directed towards the away from noise sensitive areas.
- Vehicle warning devices such as horns must not be used as signalling devices.
- Plan that are used intermittently must be shut down in the intervening periods between works (not left idling) or throttled down to a minimum.
- Where possible, noisy activities must be concentrated at one location and must move to another



as quickly as possible.

- Temporary acoustic enclosures and portable screening must be used where appropriate for activities such as concrete sawing, impact drilling and other stationary high noise activities.
- Two-way radios must be used at the minimum effective volume.
- Care must be taken in moving large objects and materials to avoid causing peak noise events, including materials from a height into a truck.
- Truck movements must use main access roads and avoid the unsurfaced residential access roads.
- Where possible low-noise plant and equipment must be given priority for use on the site over noisier plant.
- Only the necessary equipment must be present on site.
- Only the necessary power required to complete the task must be used. Unnecessary revving of engines must be avoided.
- Equipment used on site must be routinely well maintained and where possible fitted with adequately maintained silencers which meet the design specifications to avoid excessive noise.
- The use of quiet / silenced equipment, installation of noise control measures like silencers, barriers, enclosures and the adoption of quite alternative techniques must be considered.
- Silencers and enclosures must be kept intact, rotating plants must be balanced, loose bolts must be tightened, frictional noise must be reduced through lubrication and cutting noise reduced by keeping equipment sharp.
- Loaders and bobcats fitted with articulated buckets must be rubber lined at the contact points to ensure that noise levels are minimised during release of materials.
- Temporary movable noise barrier or hoarding may be installed must complaints warrant further control beyond management of intensity of construction activities shown in this procedure.
- Workers must reduce throttle setting and turn off equipment when not being used.
- Regularly inspect and maintain equipment to ensure it is in good working order, and check the condition of mufflers.
- Prior to operational activities being undertaken on-site, Workers must assess the potential for operations to cause a high volume of noise cumulatively. Works must be managed accordingly to avoid excessive cumulative noise.
- As part of the worksite induction process, training must be given to all contractor workers regarding noise and vibration impact and their responsibilities towards minimising it.

10.3 Project Vibration

Vibration from plant must be site specific with the level of vibration potentially dependent upon the vibration energy generated by the source, the predominate frequencies of vibration, the local geotechnical conditions and the interaction of structures and features which can dampen vibration.

10.1 Vibration Mitigation

To avoid adverse vibration impact, Heritage Minerals must comply with relevant vibration objectives outlined in this procedure.

The following processes must be undertaken:

- Avoid plant working simultaneously close together and adjacent to Workers, as far as practicable.
- Investigate alternative methodologies to minimise vibration levels when working near Workers.
- At least two weeks' notice in advance is to be provided to potentially effected premises where



vibration levels are expected to be in excess of the nominated levels in AS 2670.2 including how long the activity is expected too last.

- All non-conformances and vibration related complaints must immediately be reported to the site supervisor and must be documented in an up-to-date complaint register.
- If vibration complaints are received, the following control measures may need to be implemented:
 - Use smaller plant.
 - Minimise the use of vibration in compaction equipment; and
 - Use static rolling where possible.
- Where vibration damage targets are predicted to be exceeded, design and construction alternatives must be considered. If this is not feasible, then all practical and feasible mitigation measures must be employed to minimise the impacts, including:
 - Using plant that can achieve a similar outcome with less vibration, or modification of existing equipment to reduce vibration power levels (e.g., reducing compactor displacement setting).
 - Mounting high speed vibrating plant on rubber mounts where practicable.
 - Operating vibrating plant at the maximum practicable distance to a sensitive location.
 - Balancing variable speed vibrating plant and operating at speeds that do not produce resonances (excessive felt vibration in the ground or plant, compared to other speeds of operation); and
 - Maintaining machinery and equipment and keeping in good order.

10.2 Monitoring and Measurement

Where any Environmental controls have been implemented, the HSEQ Team shall perform a formal HSEQ Audit of the project and work crew to assess the effectiveness of the corrective actions implemented via this procedure.

If any non-compliance is observed, the details shall be included on the HSEQ Audit Form and recommendations entered and recorded on the form. When the Corrective Action is taken it shall be recorded in the Corrective Actions Register for close out.

11 TRAINING REQUIREMENTS

11.1 Training Maintenance

Training will be conducted in accordance with the National Training and Assessment Criteria of Australia. The type of training will typically include but not be limited to any requirements under statutory legislation.

Heritage Minerals shall supply the provision of any information, training, instruction or Supervision that is necessary to protect all persons from risks to their Health and Safety arising from work carried out as part of the conduct of Heritage Minerals or undertaking shall be given. A Training Needs Analysis will be completed where required for all Heritage Minerals Operations.

The Heritage Minerals Training Matrix is maintained for all Workers involved in the Heritage Minerals Operations. The Training Matrix will follow the Heritage Minerals Training Matrix format. All Worker records will be maintained on the Training Matrix, kept up to date and reviewed on a monthly basis to ensure that all records are accurate and complete.

Doc:	HM-MMM-ENV-PRO-008-R0A-Noise & Vibration	Rev Date:	01/11/2020	Rev No.:	0A	Page:	18 of 21	
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12 PROCEDURE REVIEW

12.1 3 Yearly Review

This Procedure may be reviewed from time to time by the Site Senior Executive or the HSEQ Team, a review shall be mandatory every 3 years or before according to changes or circumstantial needs. New Procedures may be introduced or amended should the Site Senior Executive or the HSEQ Team determine that it is needed and appropriate to do so. Updates of the Procedures will be made available. Procedures are to be read in conjunction with the references below. All Risks associated with this Procedure will be assessed and controlled in accordance with the Hierarchy of Control ISO 31000.

13 REFERENCE DOCUMENTS

13.1 Standards

Document Number:	Document Title:	
ISO 14001:2015	Environmental Management Systems	

13.2 EMS Management Plans

Document Number:	Document Title:
HM-MMM-ENV-PLN-001-R0A	Environmental Management Plan

13.3 EMS Policies

Document Number:	Document Title:
HM-MMM-ENV-POL-001-R0A	Environmental

13.4 EMS Procedures

Document Number:	Document Title:
HM-MMM-ENV-PRO-001-R0A	Legal Obligations Procedure
HM-MMM-ENV-PRO-002-R0A	Risk Management
HM-MMM-ENV-PRO-003-R0A	Objectives and Targets
HM-MMM-ENV-PRO-004-R0A	Monitoring and Measurement
HM-MMM-ENV-PRO-005-R0A	Dust and Air Management
HM-MMM-ENV-PRO-006-R0A	Waste Management
HM-MMM-ENV-PRO-007-R0A	Water Management
HM-MMM-ENV-PRO-008-R0A	Noise and Vibration
HM-MMM-ENV-PRO-009-R0A	Heritage and Cultural
HM-MMM-ENV-PRO-010-R0A	Hazardous Substances
HM-MMM-ENV-PRO-011-R0A	Flora Management
HM-MMM-ENV-PRO-012-R0A	Fauna Management
HM-MMM-ENV-PRO-013-R0A	Fire Management

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HM-MMM-ENV-PRO-014-R0A	Consultation and Communication
HM-MMM-ENV-PRO-015-R0A	Audit and Inspection
HM-MMM-ENV-PRO-016-R0A	Management Review
HM-MMM-ENV-PRO-017-R0A	Emergency Management
HM-MMM-ENV-PRO-018-R0A	Stakeholder Consultation
HM-MMM-ENV-PRO-019-R0A	Document Control
HM-MMM-ENV-PRO-020-R0A	Procurement
HM-MMM-ENV-PRO-021-R0A	Soil Management
HM-MMM-ENV-PRO-022-R0A	Incident Reporting

13.5 EMS Registers

HERITAGE MINERALS

Document Number:	Document Title:
HM-MMM-HSE-REG-001-R0A	HSEQ Registers

13.6 EMS Forms

Document Number:	Document Title:
HM-MMM-ENV-FRM-001-R0A	Environmental Compliance Matrix
HM-MMM-ENV-FRM-002-R0A	Management Review Meeting
HM-MMM-ENV-FRM-003-R0A	Management System Audit
HM-MMM-ENV-FRM-004-R0A	Weed and Seed Declaration
HM-MMM-ENV-FRM-005-R0A	HSEQ Induction Questionnaire
HM-MMM-ENV-FRM-006-R0A	Pre-Start-Toolbox
HM-MMM-ENV-FRM-007-R0A	Contractor Evaluation
HM-MMM-ENV-FRM-008-R0A	EMP Review
HM-MMM-ENV-FRM-009-R0A	HSEQ Monthly Report
HM-MMM-ENV-FRM-010-R0A	Annual EA Audit
HM-MMM-ENV-FRM-011-R0A	Objectives and Targets Guideline
HM-MMM-ENV-FRM-012-R0A	Aspects and Impacts Guideline
HM-MMM-ENV-FRM-013-R0A	HSEQ Monthly Audit
HM-MMM-ENV-FRM-014-R0A	HSEQ Inspection
HM-MMM-ENV-FRM-015-R0A	Water Testing
HM-MMM-ENV-FRM-016-R0A	Erosion and Sediment Audit
HM-MMM-ENV-FRM-017-R0A	Corrective Action Plan
HM-MMM-ENV-FRM-018-R0A	Fauna Inspection
HM-MMM-ENV-FRM-019-R0A	Heritage Inspection

HERITAGE MINERALS

Noise and Vibration Procedure

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HM-MMM-ENV-FRM-020-R0A	Air Quality Inspection
HM-MMM-ENV-FRM-021-R0A	Waste Management
HM-MMM-ENV-FRM-022-R0A	Noise Audit
HM-MMM-ENV-FRM-023-R0A	Ground Disturbance Permit
HM-MMM-ENV-FRM-024-R0A	EMS Document List
HM-MMM-ENV-FRM-025-R0A	Environmental Risk Assessment
HM-MMM-ENV-FRM-026-R0A	Management Observation
HM-MMM-ENV-FRM-027-R0A	Emergency Contact
HM-MMM-ENV-FRM-028-R0A	Emergency Drill
HM-MMM-ENV-FRM-029-R0A	Incident Notification
HM-MMM-ENV-FRM-030-R0A	Vegetation Removal Permit
HM-MMM-ENV-FRM-031-R0A	SWMS
HM-MMM-ENV-FRM-032-R0A	JSEA
HM-MMM-ENV-FRM-033-R0A	Incident Investigation
HM-MMM-ENV-FRM-034-R0A	Chemical Risk Assessment