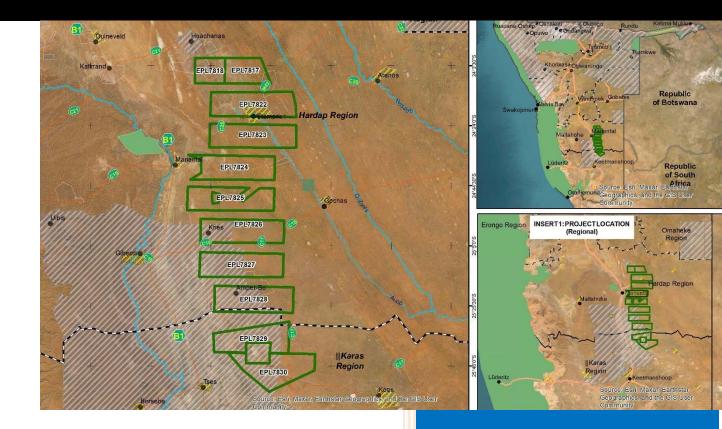
2025

Updated Environmental Management Plan

Exploration Activities on Exclusive Prospecting License (EPL) No. 7822, in Hardap Region





Environmental Management Plan

RENEWAL OF THE ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE EXPLORATION ACTIVITIES ON EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 7822, IN HARDAP REGION

PROJECT DETAILS

PROPONENT

Green Mining (Pty) Ltd P.O Box 5996 Windhoek Tel: +264 85 753 1650 Email: <u>denis.tcybulia@gmail.com</u>

REPORTDATE:

01 July 2025

AUTHORS:

Signature:

fh.

Colin P Namene P.O. Box 24213 Windhoek Tel: +264 81 458 4297 Fax: 061 - 258 470 Email: colin@environam.com

Table of Contents

1		5
2	PROJECT LOCATION	6
3	OPERATIONAL ACTIVITIES	8
4	APPLICABLE LEGISLATION	8
5	ROLES AND RESPONSIBILITIES	2
5.1	Competent Authority1	2
5.2	Proponent1	2
5.3	Exploration Manager1	2
5.4	Health Safety and Environmental Officer (HSEO)1	3
5.5	Environmental Control Officer (ECO)1	3
5.6	Contractors and Subcontractors1	3
5.7	Employees1	4
6	MANAGEMENT ACTIONS	4
6.1	Management of Negative Impacts Associated with Exploration Phase:1	5
6.1.:	1 Impact on landscape1	5
6.1.2	2 Impact on fauna1	6
6.1.3	3 Vegetation Loss1	7
6.1.4	4 Impact of waste1	8
6.1.	5 Impact on surface and groundwater2	0
6.1.0	6 Air quality2	1
6.1.7	•	
6.1.8	8 Noise2	2
6.2	Management Of Socio-Economic Impacts Associated with Exploration Phase	
6.2.3		3
6.2.2	2 Damage to roads	4
6.2.3	3 Impacts associated with camping of exploration staff2	5
6.2.4		
6.2.		
6.2.	6 Population Influx2	7
6.3	Positive Impacts Associated with the Project2	
6.3.		
6.3.2		
6.3.3	3 Generation of Revenue2	9
6.3		
7	ENVIRONMENTAL MONITORING 3	1
8	CONCLUSION	2
8.1	RECOMMENDATIONS	2
9	REFERENCES	3

List of Tables

Table 1:Legal provisions relevant to this development	8
Table 2: Monitoring activities	31

ABBREVIATIONS

AIDS	Acquired Immuno-Deficiency Syndrome	
EA	Environmental Assessment	
ECC	Environmental Clearance Certificate	
ECO	Environmental Control Officer	
EIA	Environmental Impact Assessment	
EMA	Environmental Management Act	
EMP	Environmental Management Plan	
GG	Government Gazette	
GIS	Geographic Information System	
GN	Government Notice	
GPS	Global Positioning System	
HIV	Human Immuno-deficiency Virus	
I&APs	Interested and Affected Parties	
NHC	National Heritage Council	
PR	Proponent's Representative	
Reg.	Regulation	
S	Section	
ТВ	Tuberculosis	

1 INTRODUCTION

Green Mining (Pty) Ltd, as the Proponent, is seeking to renew the Environmental Clearance Certificate (ECC) for EPL 7822, located in the Hardap Region. The mineral rights for EPL No. EPL 7822 are held by Green Mining (Pty) Ltd. This EPL encompasses a total area of 74807.9877 hectares and is focused on the exploration of nuclear fuel minerals and precious minerals. Additionally, EPL EPL 7822 includes several commercial farmlands. The Ministry of Mines and Energy issued the EPL on 28/07/2020, which is valid until 27/07/2023.

The proponent intends to undertake prospecting for precious metals and nuclear fuels mineral covering desktop studies and review of historical exploration in the area, aerial surveys such as geophysical and hyperspectral surveys, initial and detailed field-based activities such as geological mapping, ground geophysics, trenching, drilling, and sampling with laboratory testing.

The proponent appointed Risk Based Solutions (RBS) to undertake the Environmental Impact Assessment (EIA) in order to obtain an Environmental Clearance Certificate (ECC) for the activities from the Office of the Environmental Commissioner in the Ministry of Environment, Forestry and Tourism (MEFT). The ECC was issued in 2022.

This ECC is now up for renewal (2025) and the proponent has appointed Environam Consultants Trading (ECT) to apply for the renewal of the ECC. ECT hereby acknowledges the work previously carried out by RBS.

The proponent has experienced challenges obtaining access permit to enter the farmland from the landowners. This has led to the misalignment of getting the ECC and EPL approved at the same time. The application for extension of the EPL has been submitted to the Ministry of Industrialisation, Mines and Energy and the renewal is pending the approval of the application for renewal of the ECC.

This Environmental Management Plan (EMP) has been developed to manage possible impacts associated with the exploration phase. The EMP has been developed in terms of the Environmental Management Act No 7 of 2007, EMA regulations of 2012 and other relevant legislations binding to Namibia. According to the Environmental Management Act of 2007 and its regulations of 2012, mineral exploration is an activity which cannot be undertaken without an ECC.

The EMP is a legally binding document in terms of the provisions of the Environmental Management Act of 2007. The Proponent and its contractors must therefore adhere to the contents of this document.

An EMP is one of the most important outputs of the EIA process as it synthesises all of the proposed mitigation and monitoring actions, set to a timeline and with specific assigned

responsibilities. This EMP details the mitigation and monitoring actions to be implemented during the following phases of this development:

• <u>Planning and Design</u> - the period, prior to construction, during which preliminary legislative and administrative arrangements, necessary for the preparation of the land, are made and engineering designs are carried out. The preparation of construction tender documents forms part of this phase;

• <u>Construction</u> - the period during which the proponent, having dealt with the necessary legislative and administrative arrangements, appoints a contractor for the construction of services infrastructure, buildings as well as any other construction process(s) within the development areas;

- <u>Operation and Maintenance</u> the period during which the development will be fully functional, operational and maintained.
- <u>Decommissioning</u> the period at which activities on site have reached the end of economic viability and closure is imminent.

The EMP aims to take a pro-active route by addressing potential problems before they occur. The objectives of the EMP are therefore;

- To outline mitigation measures in order to manage environmental and socio-economic impacts associated with the exploration phase
- Provide a framework for implementing the management actions recommended in the EIA for exploration activities.
- To ensure that the project will comply with the relevant environmental legislations of Namibia and other requirements throughout its activities.

2 PROJECT LOCATION

Exclusive Prospecting License (EPL) 7822 is situated in the Hardap Region. The license area spans over private commercial farmlands. It is located at centre coordinates -24.271389°, 18.388333°. See Figure 1 below for the locality map.

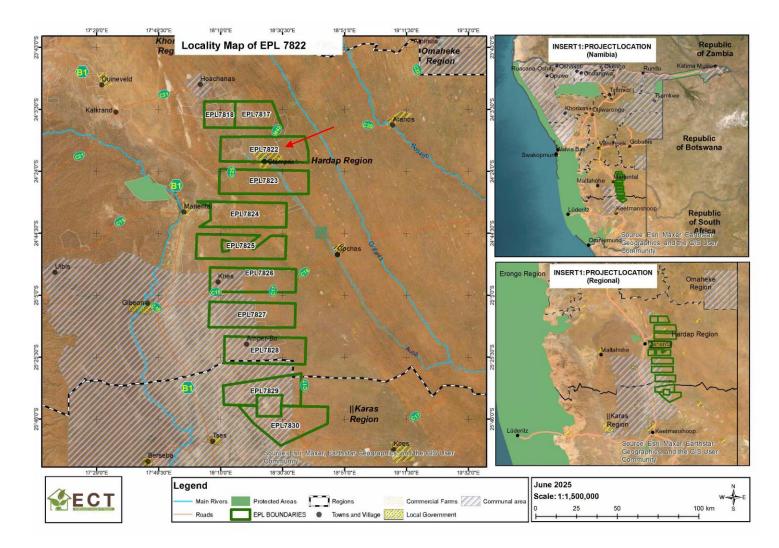


Figure 1: Locality Map of EPL7822

3 OPERATIONAL ACTIVITIES

No activities were carried out on EPL 7822 for the period from 2019 to date. This is mainly due to challenges in obtaining access permits from the landowners. However, if the ECC is renewed, pending drilling permits from the Ministry of Agriculture, Fisheries, Water and Land Reform, the proponent plans to conduct exploration activities which include: exploration drilling, hydrogeological drilling, and core sampling. geophysical well logging and testing of hydrogeological wells for radionuclides.

4 APPLICABLE LEGISLATION

Legal provisions that have relevance to various aspects of this development are listed in

 Table 1 below. The legal instrument and applicable corresponding provisions are provided.

Table 1:Legal provisions relevant to this development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT		
The Constitution of the	Article 91 (c) provides for duty	Sustainable development		
Republic of Namibia as	to guard against "the	should be at the forefront of		
Amended	degradation and destruction of	this development.		
	ecosystems and failure to			
	protect the beauty and			
	character of Namibia."			
	Article 95(l) deals with the			
	"maintenance of ecosystems,			
	essential ecological processes			
	and biological diversity" and			
	sustainable use of the country's			
	natural resources.			
Environmental	Section 2 outlines the objective	The development should be		
Management Act No. 7	of the Act and the means to	informed by the EMA.		
of 2007 (EMA)	achieve that.			
	Section 3 details the principle			
	of Environmental Management			

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
EIA Regulations GN 28,	GN 29 Identifies and lists certain	Activity 3.1 The
29, and 30 of EMA	activities that cannot be	construction of facilities for
(2012)	undertaken without an	any process or activities
	environmental clearance	which requires a licence,
	certificate.	right or other form of
	GN 30 provides the regulations	authorisation, and the
	governing the environmental	renewal of a licence, right
	assessment (EA) process.	or other form of
		authorisation, in terms of
		the Minerals (Prospecting
		and Mining Act), 1992.
		Activity 3.2 Other forms of
		mining or extraction of any
		natural resources whether
		regulated by law or not.
		Activity 3.3 Resource
		extraction, manipulation,
		conservation and related
		activities.
Convention on	Article 1 lists the conservation of	The project should consider
Biological Diversity	biological diversity amongst the	the impact it will have on the
(1992)	objectives of the convention.	biodiversity of the area.
Draft Procedures and	Part 1, Stage 8 of the guidelines	The EA process should
Guidelines for	states that if a proposal is likely	incorporate the aspects
conducting EIAs and	to affect people, certain	outlined in the guidelines.
compiling EMPs (2008)	guidelines should be considered	
	by the proponent in the scoping	
	process.	
Namibia Vision 2030	Vision 2030 states that the	Care should be taken that the
	solitude, silence and natural	development does not lead to
	beauty that many areas in	the degradation of the natural
	Namibia provide are becoming	beauty of the area.
	sought after commodities and	
	must be regarded as valuable	
	natural assets.	

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Water Resources	To provide for the management,	The pollution of water
Management Act 11 of	protection, development, use	resources should be avoided
2013	and conservation of water	during the operation of the
	resources.	development.
The Ministry of	MEFT has developed a policy on	The proponent and its
Environment, Forestry	HIV and AIDS. In addition, it has	contractor have to adhere to
and Tourism (MEFT)	also initiated a programme	the guidelines provided to
Policy on HIV & AIDS	aimed at mainstreaming HIV and	manage the aspects of
	gender issues into environmental	HIV/AIDS. Experience with
	impact assessments.	construction projects has
		shown that a significant risk is
		created when construction
		workers interact with local
		communities.
Minerals (Prospecting	This Act deals with the granting	Compliance to this instrument
and Mining) Act 33 of	of access to mineral resources.	is critical.
1992		
Labour Act no 11 of	Chapter 2 details the	Given the employment
2007	fundamental rights and	opportunities presented by the
	protections.	development, compliance with
	Chapter 3 deals with the basic	the labour law is essential.
	conditions of employment.	
Public and	Section 3 prohibits persons from	Owner, contractors and
Environmental Act of	causing nuisance.	employees have to comply with
2015		these legal requirements.
Nature Conservation	Chapter 6 provides for	Indigenous and protected
Ordinance no 4 of 1975	legislation regarding the	plants have to be managed
	protection of indigenous plants	within the legal confines.
Atmospheric Pollution	The Ordinance objective is to	All activities on the site will
Prevention Ordinance	provide for the prevention of the	have to take due consideration
(No. 11 of 1976).	pollution of the atmosphere, and	of the provisions of this
	for matters incidental thereto.	legislation.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Hazardous Substance	The ordinance provides for the	The waste generated on site
Ordinance, No. 14 of	control of substances which may	and at the campsite should be
1974	cause injury or ill-health or	suitably categorized /
	death of human beings because	classified and disposed of
	of their toxic, corrosive, irritant,	properly and in accordance
	strongly sensitizing or flammable	with the measures outlined in
	nature.	the Ordinance and Bill.
Roads Ordinance 17 of	This Ordinance consolidates the	The provisions of this
1972	laws relating to roads.	legislation have to be taken
		into consideration in as far as
		access to the development site
		is concerned.
Roads Authority Act,	Section 16(5) of this Act places a	Some functions of the Roads
1999	duty on the Roads Authority to	Ordinance 17 of 1972 have been
	ensure a safe road system.	assigned to the Roads
		Authority.
Petroleum Products	This Act regulates the on-site	The storage of fuel for the use
and Energy Act of 1990	storage of fuel amongst others	of machinery should adhere to
		the relevant legislation.
Heritage Act, 2004 (Act	The Heritage Act of 2004 makes	In an event that the Proponent
No. 27 of 2004)	provision for the developer to	comes across any
	identify and assess any	archaeological or historical
	archaeological and historical	sites of significance, they
	sites of significance. The	should report immediately to
	existence of any such sites	the Monuments Council.
	should be reported to the	
	Monuments Council as soon as	
	possible. The Council may serve	
	notice that prohibits any	
	activities as prescribed within a	
	specified distance of an	
	identified heritage/archaeology	
	site.	

5 ROLES AND RESPONSIBILITIES

This Environmental Management Plan (EMP) shall clearly state the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. The Proponent shall appoint an overall responsible person (Environmental Control Officer) to ensure the successful implementation of the EMP. The Environmental Control Officer needs to have qualifications and knowledge in environmental management implementation.

5.1 Competent Authority

The competent authority will be, the Department of Environmental Affairs: Ministry of Environment Forestry and Tourism. They will be responsible for the review and approval of the updated EMP.

5.2 Proponent

The Proponent (Green Mining (Pty) Ltd), has the overall responsibility for all financial and work force provisions, which will facilitate the implementation of this EMP. The Proponent is responsible for the appointment of other personnel responsible for the implementation of this EMP.

The Proponent is ultimately responsible for the implementation of the EMP, from the planning and design phase to the decommissioning phase of this development, if the development is in future decommissioned. The Proponent will delegate this responsibility as the project progresses through its life cycle.

5.3 Exploration Manager

The Exploration Manager is required to carry out the overall responsibility for the implementation of the EMP and to ensure that all required resources and mechanisms for environmental management are in place. The responsibilities of the Exploration Manager will be:

- Ensure that the Proponent's responsibilities are executed in compliance with the relevant legislation;
- Ensure that all the necessary environmental authorizations and permits have been obtained;
- Assist the exploration contractor/s in finding environmentally responsible solutions to challenges that may arise;
- Should the EM be of the opinion that a serious threat to, or impact on the environment may be caused by the exploration activities, he/she may stop work; the proponent

must be informed of the reasons for the stoppage as soon as possible;

- The EM has the authority to issue fines for transgressions of basic conduct rules and/or contravention of the EMP;
- Should the Contractor fail to show adequate consideration for the environmental aspects related to the EMP, the EM can have person(s) and/or equipment removed from the site or work suspended until the matter is remedied.

5.4 Health Safety and Environmental Officer (HSEO)

The HSEO is overall responsible of all environmental issues and safety of employees. The Proponent is to appoint a Health, Safety and Environment Officer (HSEO) with the following responsibilities with respect to the EMP implementation:

- Responsible of all environmental issues and safety of employees;
- Assist the EM in ensuring that the necessary environmental authorizations and permits have been obtained;
- Assist the EM and Contractor/s in finding environmentally responsible solutions to challenges that may arise;
- Carry out regular site inspections of all exploration areas with regards to compliance with the EMP; report any non-compliance(s) to the EM as soon as possible;
- Organize for an independent internal audit on the implementation of and compliance to the EMP to be carried out half way through each field-based exploration activity; audit reports to be submitted to the EM;
- Continuously review the EMP and recommend additions and/or changes to the EMP document;
- Monitor the Contractor's environmental awareness training for all new personnel coming on site; Keep records of all activities related to environmental control and monitoring; the latter to include a photographic record of the exploration activities, rehabilitation process and a register of all major incidents;
- Attend regular site meetings;
- The HSEO should record and report all incidents on site.

5.5 Environmental Control Officer (ECO)

Required to take independent responsibility of the implementation of this EMP. ECO is contracted to conduct periodic auditing of the sites, compilation of bi-annual and annual reports to be submitted to MEFT: DEA for renewal of the environmental clearance certificate.

5.6 Contractors and Subcontractors

All contractors, subcontractors and service providers are ultimately responsible for:

• Complying with the relevant legislation and EMP provisions;

- Provide Environmental; Method Statements to the Exploration Manager with regards to how certain activities on-site will be conducted;
- Adhering to environmental instructions issued by the EM;
- Arrange that all the contractor's employees receive training. Trainings have to be appropriate for the level of the tasks and functions undertaken.

The Environmental Method Statement referred to above will cover applicable details with regard to:

- Equipment to be used;
- Getting the equipment to and from site;
- How the equipment will be moved while on-site;
- How and where material will be stored;
- The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- Identified potential impacts of the activity and mitigation measures thereof;
- Compliance/non-compliance with the Environmental Specifications; and
- Any other information deemed necessary by the EM.

5.7 Employees

Required to follow instructions as directed by the EM. Report any potential environmental issues to the EM, HSEO or supervisor at site.

6 MANAGEMENT ACTIONS

The following tables form the core of this EMP for the exploration phase. The Proponent should continue to implement the proposed mitigation measures during the exploration phase. If the need arises, the Proponent can add additional measures to the EMP as the aim is to protect the environment. The below information shown in the tables, should be used as a checklist for environmental monitoring and auditing on site.

6.1 Management of Negative Impacts Associated with Exploration Phase:

6.1.1Impact on landscape

Impact	Description	Mitigation Measures	Project	Responsibility
			Phase	
Landscape	The scenery view of the site might be affected by clearing vegetation to pave way for the following activities: - Establishment of exploration camps - Exploration drilling - Hydrogeological drilling - Clearing for access roads	 Removed rocks and soil should be replaced back and levelling of the area done so as to try to restore the area to its natural state. Do not cut down vegetation unnecessary around the site. Maximise on using existing roads and minimise on creating new access roads, no off-road that could result in land scarring is allowed. Minimise the presence of secondary structures: remove inoperative support structures. Remove all infrastructure and reclaim, or rehabilitate the project site after exploration activities are completed. 	n Phase	 Proponent Exploration Manager HSEO Contractor &Subcontractors Appointed Environment al Control Officer

6.1.2Impact on fauna

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Fauna	Noise generated from the	 Poaching of wildlife and indiscriminate killing of 	Exploration	Proponent
	following exploration	perceived dangerous species (e.g., snakes, etc.) shall not	Phase	Exploration
	activities might disturb	be allowed.	Thuse	Manager
	animals:	 A drilling interval should be established, used and 		 HSEO
	- Drilling activities	adhered to.		 Contractor &
	- Drilling activities	 Working hours should be limited to minimum of 8 hours 		subcontractors
	- Movement of vehicles	per day.		Environmental
	- Walking and talking	 Noise should be addressed and mitigated at an early stage. 		Control Officer
		 Proper and timely maintenance of machineries and 		
	In addition, wild animals	vehicles to prevent noise.		
	might also be at risk if	 Avoid driving randomly rather stick to permanently placed 		
	exploration personnel	roads/tracks. This would minimise the effect on localised		
	practice poaching or	potentially sensitive habitats in the area.		
	smoking at the site. Smoking	 Stick to speed limits of maximum 30km/h as this would 		
	might result in fires.	result in fewer faunal road mortalities.		
		 Avoid disturbance of habitat areas such as big trees, 		
		boulders, rocky outcrops as these areas serve as habitat		
		for a myriad of fauna.		
		 Prevent and discourage fires as this results in loss of 		
		grazing & fauna mortalities.		
		 No foodstuff should be left lying around as this will attract 		
		animals which might result in human-animal conflict.		

6.1.3Vegetation Loss

Impact Descr	cription	Mitigation Measures	Project Phase	Responsibility
Vegetation Clear Loss way f - Ex - Hy - Hy - Ex - Ac Howe done roads need this for bo dwell chain broke The to saf	ring of vegetation will be done to pave for the following activities: kploration drilling ydrogeological drilling kploration camps ccess roads rever, no massive clearing shall be e. Existing roads shall be used and new is shall only be created when there is d. In cases that vegetation is removed will cause habitat destruction both ground dwelling species and tree lling species. The ecosystem food in on and around the area will also be	 Protected plant species shall not be removed Massive clearing shall not be allowed. All the major trees will be preserved and the activities will fit into the environment without affecting the trees. Exploration personnel shall not be allowed to cut trees for firewood. Environmental considerations will be adhered to at all times before clearing roads, drilling and establishing exploration camps. Prevent and discourage fires as this affects the grazing land and also the flora. 		 Proponent Exploration Manager HSEO Contractor &subcontractors Environme ntal Control Officer

6.1.4Impact of waste

Impact	Description	Μ	litigation Measures	Project Phase	R	esponsibility
Impact of	Waste generated might either be general	•	Burial of waste within the EPL area shall not be	Explorati	•	Proponent
waste	or hazardous waste. General waste		allowed, all generated waste must be disposed	on Phase	•	Exploration
	includes papers, food leftovers etc. while		at an approved municipal waste disposal site.			Manager
	hazardous waste includes oil leaks and	•	Strictly, no burning of waste on the site shall be		•	HSEO
	spills.		allowed as it possess environmental and public		-	Contractor &
			health impacts.			subcontractor
		-	Minimize solid waste generated on site (reduce,		-	Environmental
			reuse, or recycle).			Control Officer
		•	Excavation waste should be re-used or backfilled			
		•	Portable toilets and ablution facilities must be			
			provided on site and should not be located close			
			to Ephemeral Rivers or visible discontinuities			
			(fractures, joints or faults).			
		-	Provide waste disposal bins and never dispose of			
			hazardous waste in the bins intended for general			
			waste.			
		•	No littering shall be allowed.			
		-	Hazardous Waste			
		•	Machinery should be well maintained to			
			prevent oil leaks.			
		•	Contractor should only be allowed to store oil/fuel.			

on site provided the site store has containment
to prevent oil/fuel permeating into the soil in
cases of spillages.
 Contaminated wastes in the form of soil,
litter and other material must be disposed of
at an appropriate disposal site.
 Servicing of machinery or vehicles on site
shall not be allowed.
 Use drip trays to capture oil drips and spills
from machinery or vehicles.

6.1.5Impact on surface and groundwater

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Surface and	Within the EPL there is a pan.	Installation of hydrogeological wells to	Exploration	Proponent
groundwater	Possible sources which might cause	monitor groundwater.	Phase	Exploration
	pollution include; oil and fuel	Conduct water sampling tests to use as		Manager
	leakages from vehicles and drilling	a benchmark.		■ HSEO
	machines thus if spillages happen in	 Water sampling tests to be conducted after all 		Contractor &
	large volumes or frequently.	activities interacting with underground or		subcontractor
		surface water sources. For transparency seek,		Environmental
	Drilling activities might interact with	affected landowners / farmers must be given		Control Officer
	the water table hence the need for	full access to the water test results.		
	hydrogeological wells to monitor	 Drill water source should be from either, treated 		
	for any contamination.	water from a mains supply, clean/treated surface		
		waters or groundwater of a satisfactory quality.		
		Use appropriate additives in broken or fractured		
		bedrock to prevent ingress into the aquifer.		
		Ensure additives are non-hazardous, non – toxic		
		and biodegradable.		
		Proper storage of fuel.		
		Proper disposal of contaminated waste.		
		Use of drip trays.		

6.1.6Air quality

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
Air quality	 Sources of air quality pollution will be; Dust from vehicles and drilling machinery. Emissions from vehicles and drill rigs. People at risk are likely to be exploration 	 Soil watering when soil works are being executed and where dust is emitted Control speed and operation of exploration vehicles. Prohibit idling of vehicles. 	Exploration Phase	 Proponent Exploration Manager HSEO Contractor & subcontractor Environmental
	personnel working on the immediate surrounding. Accumulation of dust might lead to respiratory problems.	 Workers should be provided with dust masks if working in sensitive areas. Regular monitoring to ensure safe operation. 		Control Officer

6.1.7Impact on soil

Impact	Description	Mi	itigation Measures	Project Phase	Responsibility
Soil	Soil will be disturbed during drilling and	•	After completion of exploration activities	Exploration	Proponent
	also it might be affected by oil or fuel		removed soil layers must be replaced and	Phase	Exploration
	leakages from machines and vehicles.		levelling must be done so that the original		Manager
	However, comparing with trenching,		condition is restored.		HSEO
	drilling does not cause significate impact	•	Proper care should be taken so that there is		Contractor &
	on the soil.		no spill that would cause soil contamination.		subcontractor
		•	If any hazardous waste is produced it should		Environmental
			be properly handled and sent for disposal to		Control Officer
			appropriate disposal areas.		

6.1.8Noise

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
Noise	 Noise might be generated from: Drilling activities Frequent movement of vehicles The Proponent should continue to safeguard against noise as excessive noise can affect exploration personnel and animals. High noise levels can inhibit worker communication; reduce productivity and increase the chances of accidents. Prolonged exposure to excessive noise can result in permanent hearing loss and health problems such as sleep disturbance. However, farm owners are unlikely to be affected given that the exploration activities are conducted far from the farm houses. 	 A drilling interval will be established, used and adhered to. Working hours should be limited to minimum of 8 hours per day. Noise should be addressed and mitigated at an early stage. Proper and timely maintenance of machineries and vehicles. Employees to be equipped with ear protection equipment. Limit vehicle movements and adhere to speed limits. National or international acoustic design standards must be followed. 	Exploration Phase	 Proponent Exploration Manager HSEO Contractor & subcontractor Environmental Control Officer

6.2 Management Of Socio-Economic Impacts Associated with Exploration Phase

6.2.1Occupational Health and Safety

Impact	Description	Mitigation Measures	Project Phase	Responsibility
OHS	Noise, dust, occupational stress,	 Conduct Hazard identification and risk assessments 	Exploration	Proponent
	working in hot environments,	 Comply with all Health and Safety standards specified in the 	Phase	Exploration
	bushfires, ionising radiation and	Labour Act.		Manager
	remoteness of exploration area	 Provide all staff on site with relevant and adequate protective 		HSEO
	are some of the occupational	clothing and equipment (helmets, gloves, respirators, work		 Contractor &
	hazards associated with the	suits, earplugs, goggles and safety shoes where applicable).		subcontractor
	exploration phase.	 Use of dust suppression measures. 		Environmental
	To note, currently the exploration personnel are mainly exposed to natural radiation of the area. However, precautions are being taken for personnel working with Core samples. The personnel carry radiometers to	 Reduce noise exposure by isolating noisy equipment and rotate tasks. Provision of First Aid at the site Provisions of immediate accident/incident reporting and investigation. Safety Posters and slogans should be exhibited at conspicuous places. 		Control Officer
	measure the intensity of the natural radiation levels so as to determine whether it is safe to work within the area.	 Employer should allocate time for employees to visit their families. No person under the influence of alcohol or drugs is allowed to work on site. Train workers on personal safety and disaster preparedness. Continuous and vigilant monitoring of the radiation levels. 		

6.2.2Damage to roads

Impact	Description	Mi	tigation Measures	Project Phase	Responsibility
Damage	Frequent movement of vehicles and	•	Do not drive randomly throughout the area	Exploration	Proponent
to roads	machinery have the possibility of degrading	•	Where access roads have to be established,	Phase	Exploration
	the existing roads.		the routes should be selected causing minimal		Manager
			damage to the environment – e.g. use the		HSEO
			same tracks; cross drainage lines at right		Contractor &
			angles; avoid placing tracks within drainage		subcontractor
			lines; avoid collateral damage (i.e. select		Environmental
			routes that do not require the unnecessary		Control Officer
			removal of trees/shrubs, especially protected		
			species).		
		-	No drilling equipment allowed on farms		
			during the rainy season.		
		-	Leave vehicles on tracks and walk to point of		
			interest, when possible.		
		-	Rehabilitate new tracks created.		

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Impacts	Establishment of camps and associated	 Select camp sites and other temporary lay over 	Exploration	Proponent
associated with	camping results in effects such as	sites with care – i.e. avoid important habitats	Phase	Exploration
camping	clearing of vegetation and in some cases	(e.g. raptor breeding sites).		Manager
of exploration	poor housekeeping and fires.	 No visitors allowed 		HSEO
staff		 Ablution facilities to be provided in the form of 		 Contractor &
		portable toilets.		subcontractor
		 Good housekeeping. 		Environmental
		 No poaching or collecting of unique plants (e.g., 		Control Officer
		various Aloe and Lithop).		
		 Smoking and drinking alcohol shall not be 		
		allowed on sit.		
		 Remove and relocate slow moving vertebrate 		
		fauna to suitable habitat elsewhere on property		
		 Avoid the removal and/or damaging of protected 		
		flora and big trees.		
		 Ensure that adequate firefighting equipment is 		
		available at camp sites and clear kitchen areas to		
		avoid accidental fires.		
		 Exploration personnel should aim to protect the 		
		environment.		

6.2.3Impacts associated with camping of exploration staff

6.2.4Heritage impact

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Heritage impact	At the site, there are no known heritage areas or artefacts deemed to be impacted by the exploration activities.	 All works are to be immediately ceased should an archaeological or heritage resource be discovered. The National Heritage Council of Namibia (NHCN) should advise with regards to the removal, packaging and transfer of the potential resource. 	Exploration Phase	 Proponent Exploration Manager HSEO

6.2.5Risk and spread of HIV/AIDS

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
HIV/AIDS	Even though a few people are employed	 Employer should allocate time for employees 	Exploration	 Proponent
	at this stage (exploration), the disease	to visit their families.	Phase	 Exploration
	might still spread hence the need for	 Free distribution of condoms. 		Manager
	continuous sensitisation.			 HSEO
				 Contractor & subcontractor

6.2.6Population Influx

Impacts	Description	Μ	itigation Measures	Project Phase	Re	sponsibility
Population	Green Mining (Pty) Ltd has its exploration	•	Local employment should be a priority so as	Exploration		Proponent
Influx	personnel and it also contracts local		to reduce the number of outsiders.	Phase	•	Exploration
	companies for drilling and other activities	•	Contractors should submit a code of conduct			Manager
	associated with exploration. This has an effect		and disciplinary actions should be in		•	HSEO
	of increasing the number of people in the		accordance with Namibian legislation.		•	Contractor &
	area. Security might also be compromised	•	An access agreement to be signed prior to			subcontractor
	given that new people from different areas		exploration.			
	will come either in search of work or offering	•	No gates to be left open or fences damaged			
	different services.	•	An identification document with all			
			exploration staff to be supplied to farm			
			owners prior to exploration.			
		•	All staff to carry identification badges.			

6.3 Positive Impacts Associated with the Project

6.3.1Employment creation

Impact	Description	Enhancement Required	Project Phase	Responsibility
Employment	The Proponent contracts local companies to carry	 Employ locals in all casual labour and 	Exploration	 Proponent
creation	out exploration and drilling activities. In addition,	ensure gender equality.	Phase	
	locals are also benefiting as they are being	 Equity, transparency, to be put into 		
	employed on non- skilled jobs.	account when hiring and recruiting.		
	Even though a few people are currently employed			
	during the exploration phase, if medium to minable			
	deposits are found and mining activities start, many			
	people will be employed. This project therefore is			
	definitely going to be beneficial in future.			

6.3.2Social responsibility

Impact	Description	Enhancement Required	Project Phase	Responsibility	
Social	Green Mining (Pty) Ltd participates in	 Continue promoting community 	Exploration	 Proponent 	
responsibility	community development programmes.	development programmes.	Phase		

6.3.3Generation of Revenue

Impact		Description	Enhancement Required		Project Phase	Responsibility
Generation	of	Green Mining (Pty) Ltd pays tax hence	•	The Proponent, Contractors and	Exploration	 Proponent
Revenue		generating revenue.		subcontractors to pay taxes as stipulated by the law of Namibia.	Phase	 Contractor & subcontractor

Impact	Description	Mi	tigation Measures	Project	Re	sponsibility
				Phase		
Post-	The stage of exploration is expected to have	-	All holes or pits shall be backfilled or	Post-exploration	•	Proponent
exploration	minimum damage to the environment as		contoured to a stable angle of repose.	Phase		
stage	compared to mining. However, the major	•	Remove all exploration temporary			
	issue which need to be looked after the phase		structures on site and ensure the area is			
	of exploration is how the project has		left clean.			
	impacted the environment.	•	Water sampling results for the exploration			
			phase should be available and an analysis			
	To note, current measures already in place		should be done to check if groundwater			
	include backfilling and sealing the exploration		was impacted.			
	wells after exploration of the site. The	•	Rehabilitate any area disturbed by the			
	exploration team will only move to the next		exploration activities.			
	site after rehabilitating the area they have					
	been working on. A general consensus is					
	made between the landowner and					
	Proponent if the land has been rehabilitated					
	well.					

7 ENVIRONMENTAL MONITORING

A monitoring programme will be in place to ensure conformance with the EMP. The Environmental Control Officer will ensure compliance with the EMP, and carry out monitoring/auditing activities. The Environmental Control Officer must have the appropriate experience and qualifications to undertake the necessary tasks. The Environmental Control Officer will report to the Proponent should any non-compliance be evident or corrective action necessary. The Proponent may opt to engage the services of an independent Environmental Consultant to undertake the monitoring and auditing activities. The suggested monitoring details are outlined in table 2 below.

Table 2: Monitoring activities

IMPACTS	RECEPTORS	TYPE OF MONITORING	PERIOD/TIME
Alternation of existing landscape	Environment	 Inspections 	During and after drilling
Dust	Employees	 Regular site inspections 	■ Daily
Impact on fauna	Environment	 Inspections 	Period of drilling
Surface & groundwater Pollution	Environment	 Hydrogeological tests 	 During and after activities that interact with underground and surface water bodies
Noise	Employees & Fauna	 Noise monitoring 	■ Daily
Vegetation loss	Environment	 Inspection of protected plant species and big trees and incorporate them into the development 	 Period of establishing exploration camps Period of drilling Period of creating access roads.
Heritage	Land	 Inspection 	Period of exploration
O.H. S	Employees	 Site inspection Conducting Hazard and Risk Assessments 	■ Daily
Impact on soil	Environment.	 Site inspections 	Period of exploration
Generation of waste (solid)	Land	 Site inspection on housekeeping Regular collection of waste 	DailyWeekly
HIV/AIDS	Employees	Free testing	Annually

8 CONCLUSION

It is recommended that the application for renewing the Environmental Clearance Certificate (ECC) for EPL 7822 be approved, conditional upon rigorous implementation of the Environmental Management Plan (EMP). Adherence to the EMP will mitigate potential environmental impacts and ensure compliance with regulatory standards. The applicant bears responsibility for ensuring the EMP is contractually binding for all contractors involved and for enforcing its provisions as a mandatory on-site reference. Any party found in violation of the EMP must bear responsibility for necessary rehabilitation measures, including costs and corrective actions.

8.1 RECOMMENDATIONS

The following recommendations have been brought forward:

- Environmental monitoring by an independent environmental consultancy must be carried out during the exploration phase to monitor environmental compliance.
- Bi- annual and annual reports should be compiled and submitted to MEFT.
- These monitoring reports should accompany the application for renewal of the environmental clearance certificate after 3 years

9 **REFERENCES**

- Constitution of the Republic of Namibia Act No 1 of 1990, Namibia: [Online] Available from: <u>https://nan.gov.na/acts.</u>
- Risk Based Solutions (RBS), 2022. Environmental Management Plan (EMP) Report to Support the Application for Environmental Clearance Certificate (ECC) for the proposed Minerals Exploration/ Prospecting Activities in Exclusive Prospecting License (EPL) 7822 Hardap Region.
- 3. Environmental Impact Assessment Regulations Act of 2012, Namibia.
- 4. Environmental Management Act of 2007, Namibia.
- 5. Hazardous Substance Ordinance No. 14 of 1974, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
- 6. Heritage Act No 27 of 2004, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
- 7. Labour Act No 11 of 2007, Namibia: [Online] Available from: <u>http://www.lac.org.na/index.php/laws/statutes/</u>
- Mendelsohn. J, Jarvis. A, Roberts.C, Robertson. T (2003). Atlas of Namibia. Cape Town South Africa: David Philip publishers
- 9. Minerals (Prospecting and Mining) Act No 33 1 of 1992, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
- 10. Nature Conservation Ordinance No. 4 of 1975, Namibia: [Online] Available from: <u>http://www.lac.org.na/index.php/laws/statutes/</u>
- 11. Peters, R. J. (2013). Acoustics and noise control. Routledge.
- 12. Public Health and Environmental Act 2015, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
- 13. Soil
 Conservation
 Act
 6
 of
 1969,
 Namibia:
 [Online]

 Available
 from: http://www.lac.org.na/index.php/laws/statutes/
- 14. Water Act 54 of 1956, Namibia: [Online] Available from: <u>http://www.lac.org.na/index.php/laws/statutes/</u> [Accessed 4 July 2022]
- 15. Water Resources Management Act 11 of 2013, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/

Appendix A - Old ECC



