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APP-002661

PROJECT DETAILS

Title	ENVIRONMENTAL MANAGEMENT PLAN FOR THE EXPLORATION ACTIVITIES FOR BASE & RARE METALS, DIMENSION STONE, INDUSTRIAL MINERALS AND PRECIOUS STONES ON THE EASTERN PORTION OF FARM KAMPANENO 104 UNDER EPL 5476, OMARURU CONSTITUENCY, ERONGO REGION, NAMIBIA.		
HEEC Reference	HEEC0032021		
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DECLARATION

We hereby declare that:

- a. We have the knowledge of and experience in conducting assessments, including knowledge of the Acts, Regulations and Guidelines that are relevant to the proposed exploration activities for base & rare metals, dimension stone, industrial minerals and precious stones.

- b. We have performed the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant.



.....

Tanaka D. Nyatoro

Environmental Assessment Practitioner (EAP)

Table of Contents

1. Environmental Management Plan (EMP)	1
1.1. Background	1
1.2. Project description	1
1.3. Summary of the proposed activities	1
1.4. Environmental & legal requirements	2
1.5. Fulfilments of the environmental requirements	3
1.6. What is an Environmental Management Plan?	5
1.7. What are the legal implications and obligations under this plan?	5
1.8. Positive Impacts	6
1.8.1. Employment/job creation	6
1.8.2. Enhancement measures for employment/job creation	6
1.8.3. Support to local retailers shop	6
1.8.4. Enhancement measures for support to local retailers shop	7
1.8.5. Export taxes and VAT payments	7
1.8.6. Enhancement measures for export taxes and VAT payment	7
1.9. Negative Impacts	7
1.9.1. Solid waste: wires, drill bits, and human waste	7
1.9.2. Impact of oil spills on groundwater aquifer and surface water streams	8
1.9.3. Land or soil disturbance: on site and the proposed internal road network	8
1.9.4. Dust generation on site	9
1.9.5. Biodiversity (fauna and flora)	10
1.9.6. Potential spread of HIV/AIDS	10
1.9.7 Covid19 INFECTION PREVENTION AND CONTROL MEASURES	11
2.0 Implementing the environmental management plan (EMP)	15
2.1 Overview	15
2.2 Monitoring, reporting and corrective action	20
2.2.1 Overview	20
2.3 Environmental awareness	24
3.0 Conclusion and recommendations	30
3.1 Conclusion	30
3.2 Recommendations	30
4.0 References	32

LISTS OF TABLES

Table 1: List of triggered activities identified in the EIA Regulations which apply to the proposed project	4
Table 2: Project Planning and Implementation	16
Table 3: Implementing of the Positive Impacts	17
Table 4: Implementing of the Negative Impacts	18
Table 5: Solid waste disposal: wire, paper, drill bits, and human waste	20
Table 6: Oil spillage or used oil.....	21
Table 7: Land and Soil Disturbance.....	22
Table 8: Dust generation on site and gravel roads stretch	22
Table 9: Biodiversity (fauna and flora)	23
Table 10: Compliance	23
Table 11: Environmental Personnel Register.....	28

ABBREVIATIONS AND ACRONYMS

EMP	Environmental Management Plan
EIA	Environmental Impact Assessment
EC	Environmental Commissioner
SADC	Southern African Development Community
MME	Ministry of Mines and Energy
MEFT	Ministry of Environment, Forestry and Tourism
MAWLR	Ministry of Agriculture Water and Land Reform
DWA	Department of Water Affairs
MC	Mining Claim
DEA	Department of Environmental Affairs
SM	Site Manager
ENC	Environmental control officer
SF	Site Foreman
PS	Project Staff
PP	Project Proponent
EAP	Environmental Assessment Practitioner
I&APs	Interested and Affected Parties
EAs	Environmental Assessments

1. Environmental Management Plan (EMP)

1.1. Background

Royal Unity Mining CC holds the rights over EPL 5476 located in Omaruru Constituency, Erongo Region. Royal Unity Mining CC intends to undertake exploration activities for Base & Rare Metals, Dimension Stone, Industrial Minerals and Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476.

1.2. Project description

Royal Unity Mining CC intends to undertake exploration of Base & Rare Metals, Dimension Stone, Industrial Minerals and Precious Stones while focusing on dimension stones specifically granite with the current potential economic demand. The proposed exploration activities on the eastern portion of Farm Kampaneno 104 has a strong focus on dimension stone in particular granite. The intended surface mining for granite will use the cutting methods to remove the granite slabs and various technological equipment and instruments will be used in the bulk sampling process.

1.3. Summary of the proposed activities

The environmental issues related to surface exploration of Base & Rare Metals, Dimension Stone, Industrial Minerals and Precious Stones are mostly local and are common to most surface operations. These issues include oil spillage, dust or air pollution, impact on biodiversity, and land disturbance, impact on groundwater aquifer and also social economic impacts. The quarrying operations processes and associated activities are as follows:

- Ground or land disturbances will take place and this will result in localized loss of flora as well as any other fauna that maybe depended on such specific flora;
- Cutting, Drilling, trenching, and bulk sampling will be used in test mining for loosening the hard rock.
- The creation of internal access roads on the eastern portion of Farm Kampaneno 104 under the EPL 5476 area;

1.4. Environmental & legal requirements

Royal Unity Mining CC is required by law to undertake an Environmental Impact Assessment (EIA) for the exploration of Base & Rare Metals, Dimension Stone, Industrial Minerals and Precious Stones in line with the following legal requirements:

- The Constitution of the Republic of Namibia as Amended
- Environmental Management Act No. 7 of 2007 (EMA)
- EIA Regulations GN 28, 29, and 30 of EMA (2012)
- Prospecting and Mining Act, 1992, (Act No 33 of 1992);
- Environmental Assessment Policy for Sustainable Development and Environmental Conservation of 1995;
- Convention on Biological Diversity (1992)
- Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)
- Namibia Vision 2030
- Water Act No. 54 of 1956
- The Ministry of Environment and Tourism (MET) Policy on HIV & AIDS
- Local Authorities Act No. 23 of 1992
- Labour Act No. 11 of 2007
- Public and Environmental Health Act of 2015
- Nature Conservation Ordinance No. 4 of 1975
- Soil Conservation Act 6 of 1969.

1.5. Fulfilments of the environmental requirements

Royal Unity Mining CC has appointed Healthy Earth Environmental Consultants CC (HEEC) as the Environmental Consultant. Therefore Healthy Earth Environmental Consultants CC (HEEC) has prepared this Environmental Assessment Report covering the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) in order to meet the statutory environmental management requirements for the proposed quarrying activity for EPL 5476. This Environmental Assessment report has been undertaken within the framework of the existing environmental assessment process as described in the Environmental Assessment Policy for Sustainable Development and Environmental Conservation of 1995, published by the Ministry of Environment and Tourism as well as the provisions of the Environmental Management Act, (Act No. 7 of 2007) and its EIA regulation of 2012.

The objective of the intended Environmental Assessment is thus needed in order to assess the potential social and environmental impacts associated with the exploration activities for Base & Rare Metals, Dimension Stone, Industrial Minerals And Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476, Omaruru Constituency, Erongo Region and also to formulate methods of rehabilitation of the open quarry pits/trenches at the sites.

The above is a listed activity in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

In terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), the following listed activities in **Table 1** were triggered by the proposed project:

Table 1: List of triggered activities identified in the EIA Regulations which apply to the proposed project

Activity description and No(s):	Description of relevant Activity	The portion of the development as per the project description that relates to the applicable listed activity
Activity 3.1 (Mining and Quarrying Activities)	The construction of facilities for any process or activities which requires a licence, right or other form of authorisation, and the renewal of a licence, right or other form of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992.	The proposed project includes the exploration activities for Base & Rare Metals, Dimension Stone, Industrial Minerals And Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476, Omaruru Constituency, Erongo Region, Namibia.
Activity 3.2 (Mining and Quarrying Activities)	Other forms of mining or extraction of any natural resources whether regulated by law or not.	The proposed project entails the exploration activities for Base & Rare Metals, Dimension Stone, Industrial Minerals And Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476, Omaruru Constituency, Erongo Region, Namibia.
Activity 3.3 (Mining and Quarrying Activities)	Resource extraction, manipulation, conservation and related activities.	The proposed project entails the exploration activities for Base & Rare Metals, Dimension Stone, Industrial Minerals And Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476, Omaruru Constituency, Erongo Region, Namibia.

1.6. What is an Environmental Management Plan?

Environmental Management Plans (EMP's) are important tools that focus on the management actions that are required to ensure not only environmental compliance of projects, but also on implementing mitigation measures aimed at maximizing positive impacts while minimizing negative ones. The statutory validity and compliance significance of the EMP is inherited from the provisions of Regulations (2012) of the Environmental Management Act (2007) state that "the environmental management plan shall set out steps that are intended to be taken to manage any significant environmental impact that may result from the operation of the undertaking".

Against the above given context, EMP are thus by their nature recurring processes that transform mitigation measures into actions and through biannual monitoring, auditing, review and corrective action, ensures conformance with stated EMP aims and objectives. Inherently, an EMP must respond to unforeseen events and changes in project implementation that were not considered before, and this is achieved through biannual monitoring and auditing, including feedback for continual improvement in environmental performance.

1.7. What are the legal implications and obligations under this plan?

The Environmental Management Plan will be sent to the Directorate of Environmental Affairs (DEA) of the Ministry of Environment, Forestry and Tourism (MEFT) for approval. Once the DEA is satisfied with the contents of the EMP, they will issue an Environmental Clearance Certificate to Royal Unity Mining CC. The Environmental Clearance Certificate is linked with the recommendations of the Environmental Management Plan.

The EMP, once accepted with the issuance of the Environmental Clearance, therefore becomes a legally binding document and each role-player including contractors and sub-contractors who are made responsible to implement the relevant sections of this EMP, are required to abide to the conditions stipulated in this EMP document .

1.8. Positive Impacts

1.8.1. Employment/job creation

The exploration activities will provide jobs both direct and indirectly to the residents of the nearby Omatjete village & surrounding settlements and Omaruru town. The sampling activities will employ of about 15 to 20 people, whereas, the transporting, offloading and shipping of samples will create about 5 jobs. Indirect jobs will come from the multiplier effects of the pressure on disposal sites and upstream service providers to the proposed project. Geological mapping is an essential tool for mining exploration work. It is carried out at different scales according to progress in exploration and generates geological maps that show the lithology of the outcrops and the structures with mineralization and mining potential.

1.8.2. Enhancement measures for employment/job creation

- Where unskilled labour can be used, a 'locals first' policy should be considered by Royal Unity Mining CC.
- It is proposed that local people, meaning the community members from Omatjete village & surrounding settlements and the Omaruru Town, should be employed as far as possible, especially where no specific skills are required.
- The Omaruru Town Councilor could be requested to assist with the recruitment of construction/exploration workers.
- Both men and women should be granted the opportunity to be employed by this project.

1.8.3. Support to local retailers shop

Mining is the highest foreign currency earner and GDP contributor to the Namibian economy, therefore the presence of mining/exploration activities near local authorities stand to benefit the local economies from project related purchases, for example, the retail, accommodation and recreation sectors.

1.8.4. Enhancement measures for support to local retailers shop

Royal Unity Mining CC and its employees are encouraged to purchase or support local retailers in Omaruru Town unless the intended material/product to purchase is not available.

1.8.5. Export taxes and VAT payments

Export taxes and VAT payments contribute significantly to the national economy contribution. Thus, without these payments our government will not be able to roll out project on infrastructure, being it water, road or electricity and also sanitation facilities nationwide.

1.8.6. Enhancement measures for export taxes and VAT payment

Royal Unity Mining CC and its employees are encouraged to make these payments when applicable to support the economic growth of the country.

1.9. Negative Impacts

1.9.1. Solid waste: wires, drill bits, and human waste

Human activities at the exploration site will to some extent produce litter, particularly small items that people throw away on the ground. This impact will be minimized or/and eliminated by providing adequate labelled waste collection bins. In addition; awareness posters are proposed as constant reminders in reinforcing this commitment.

1.9.1.1. *Mitigation*

- Provision of adequate labelled waste bins for different waste streams, particularly in litter prone areas of the site, and
- Awareness enhancement measures by use of visual posters, chiefly for those who cannot read.
- For human waste, mobile toilets should be made available on site for workers and once these facilities are full, the collected human waste should be disposed at the Omaruru Town human waste disposal site. Prior to the disposal of the above mentioned wastes Royal Unity Mining CC must enter into an agreement with the Omaruru Town for permission to use their facility.

1.9.2. Impact of oil spills on groundwater aquifer and surface water streams

The use of industrial vehicles and air compressor generators on the exploration sites will pose a risk of oils spillage. Besides the health risk of its bio-availability, oil and oil spillage contaminates top soil, groundwater aquifer and is a fire risk and impairs biological productivity of top soil.

1.9.2.1. *Mitigation*

- Train and supervise staff to ensure minimal spillage of oil.
- Routine inspections before the start of every work schedule involving potential spillage.
- Collect used oil in drums and to be collected by a recycling company

1.9.3. Land or soil disturbance: on site and the proposed internal road network

The sampling process will involve cutting out bulk samples from in situ granite outcrops and therefore disturbing the landform and the soil cover in the immediate surroundings of the exploration site. This undertaking will have visual impact and has the potential of disturbing the structural integrity and biological productivity of top soil.

1.9.3.1. *Mitigation*

- The top soil from 0 to 30cm to be removed and stockpile and to be used during the rehabilitation process.
- The top soil in the immediate vicinity of the sampling site should be removed and stored for re-cultivation during decommissioning.
- It is recommended that top soil to be removed down to the subsoil, where it is significantly thicker than 0.5m, as topsoil is always a scarce resource, and even if this lower material does not contain seed and is poorer in soil organisms, it has been found to be useful in reclamation.
- Where top soil is less than 150mm thick the unconsolidated material beneath should also be removed and treated as topsoil.
- Land markings and pits induced during sampling shall be restored to original landform and visual state as much as possible. Furthermore, this mitigation measure shall

extend and applies to any disturbance induced by any internal access roads. Raking or/and dragging with tyres could help in restoration of vehicle tracks.

1.9.4. Dust generation on site

During the quarrying (exploration phase) process dust will be generated onsite by earth moving equipment and also on the gravel road by trucks and vehicles. On site, granite blocks will be cut into smaller blocks in order to give them the desired smooth shape. During the cutting process about 25% the original granite mass is lost in the form of dust. In addition, processing of granite results in the formation of granite dust, which is suspended in the air and which could be inhaled by the workers. Epidemiological studies indicates that workers exposed to granite dust stand an increased risk of suffering from asthma symptoms, chronic bronchitis, nasal inflammation and impairment of lung function (Camici et al., 1978; Angotzi et al., 2005; Leikin et al., 2009)

1.9.4.1. Mitigation

- Measures such as the use of wet processes enclosure of dust-producing processes under negative air pressure (slight vacuum compared to the air pressure outside the enclosure),
- Exhausting air containing dust through a collection system before emission to the atmosphere, and exhaust ventilation should be used in the workplace.
- Use of personal protective equipment for proper dust control for respiratory protection and should be used only where dust control methods are not yet effective or are inadequate.
- Direct skin contact should be prevented by gloves, wearing respiratory protection during cleanup,
- Educational awareness programs for workers should be instituted about hazard of exposure to granite dust and on the use and maintenance of exhaust ventilation systems, and the use and maintenance of personal protective equipment to avoid risk of dust and noise.
- All gravel roads in exploration areas should have a speed limit of 60km/h for light vehicles and 30km/h for heavy vehicles in order to minimise the amount of dust generated by vehicles.

- In addition, where available water allows, roads should be sprayed with water on a regular basis in order to prevent dust creation.

1.9.5. Biodiversity (fauna and flora)

Some of the activities of the proposed exploration project i.e. vehicle & human movement, excavating pose a risk to the integrity of baseline biodiversity as well as the biological productivity of the site and the immediate proximity.

1.9.5.1. Mitigation

- Disturbed areas must be kept to a minimum
- Barriers/barricades confining driving trucks must be erected to avoid stray driving and trampling on habitat
- Rules pertaining to safe guarding against poaching and collection of plant and plant products must be established and enforced.
- Avoid damage to protected or high use value trees during exploration and usage of heavy machines.
- Disturbance of marginal vegetation at the rocky outcrops/hills should be limited.
- Avoid disturbance on invertebrate on site and along the gravel road stretch.
- During operation avoid the creation of multiple road strips, which could result in the disturbance of breeding sites for various mammals.

1.9.6. Potential spread of HIV/AIDS

In the proposed project area, it is estimated that one out of every four people are HIV positive. Previous experience has shown that construction workers or mining workers residing in a construction camps may engage in risky sexual behaviour with members of the community. This can contribute to the spread of HIV both in the project area and beyond to other region.

1.9.6.1. Mitigation

- Royal Unity Mining CC, ECO should sensitize the risks of sexual behaviour, and also the effects of HIV/AIDS to its employees. Workers should be prohibited to engage in such activities with especially minors. Mitigation measures as outlined in the EMP should be adhered to.

1.9.7 Covid19 INFECTION PREVENTION AND CONTROL MEASURES

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus i.e. severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, and quickly fall on floors or surfaces. You can be infected by breathing in the virus if you are within close proximity of someone who has COVID-19, or by touching a contaminated surface and then your eyes, nose or mouth.

Employers must implement a code of practice to manage and prevent the spread of COVID-19. This is to ensure that mine employees returning to work and any other persons at the mine site, are protected from transmission of the coronavirus at the workplace, whilst providing guidance to all stakeholders regarding their roles and responsibilities in the management of the virus. The regulations require mine operators to supply protective equipment, screen all people entering the mine, provide standby quarantine facilities before transferring infected persons to the state quarantine centres, identify those with pre-existing conditions and carry out routine disinfection.

They also have to keep mineworkers between one and two metres apart. Failure to enforce the rules would constitute a violation of the nationwide Covid19 regulations as stipulated by the Head of State and the relevant arms of government to curb the spread of the corona virus.

After arrival of employees at the mining site, employers should comply with the following:

- Infection prevention and control measures should be applied to all modes of transport for employees, screening areas and active work areas.

1.9.7.1 Education of workers should be given on:

Maintaining physical distancing. Ensure employees and staff keep a distance of at least 1-2 m when in contact with other people; where this is not possible, issue appropriate facemasks, as per the Guidance on PPE for COVID-19.

- Regular washing of hands with soap.
- Regular sanitising of hands with alcohol-based hand rub (ABHR) or other appropriate sanitisers.
- Avoid touching your face areas (mouth, eyes and nose).
- Avoid physical hand contact such as handshakes.
- Avoid using other people's personal belongings such as stationery, cell phones and sharing food etc.

- When coughing or sneezing do not use your hands, rather use a tissue/toilet paper or the inside of your elbow.
- Use disposable tissues rather than a handkerchief; immediately dispose of these tissues in a closed bin and wash or sanitise your hands thereafter.
- Avoid big crowds and travelling.
- Avoid touching objects before sanitising, like steering wheels on machinery, toilet seats, tables and chairs.
- Coach and teach family members.
- Wearing and handling of appropriate PPE.

a) Posters on Infection Prevention to be visible at designated areas of the mining claim sites (See **Figure 1** for a typical Covid19 information poster).

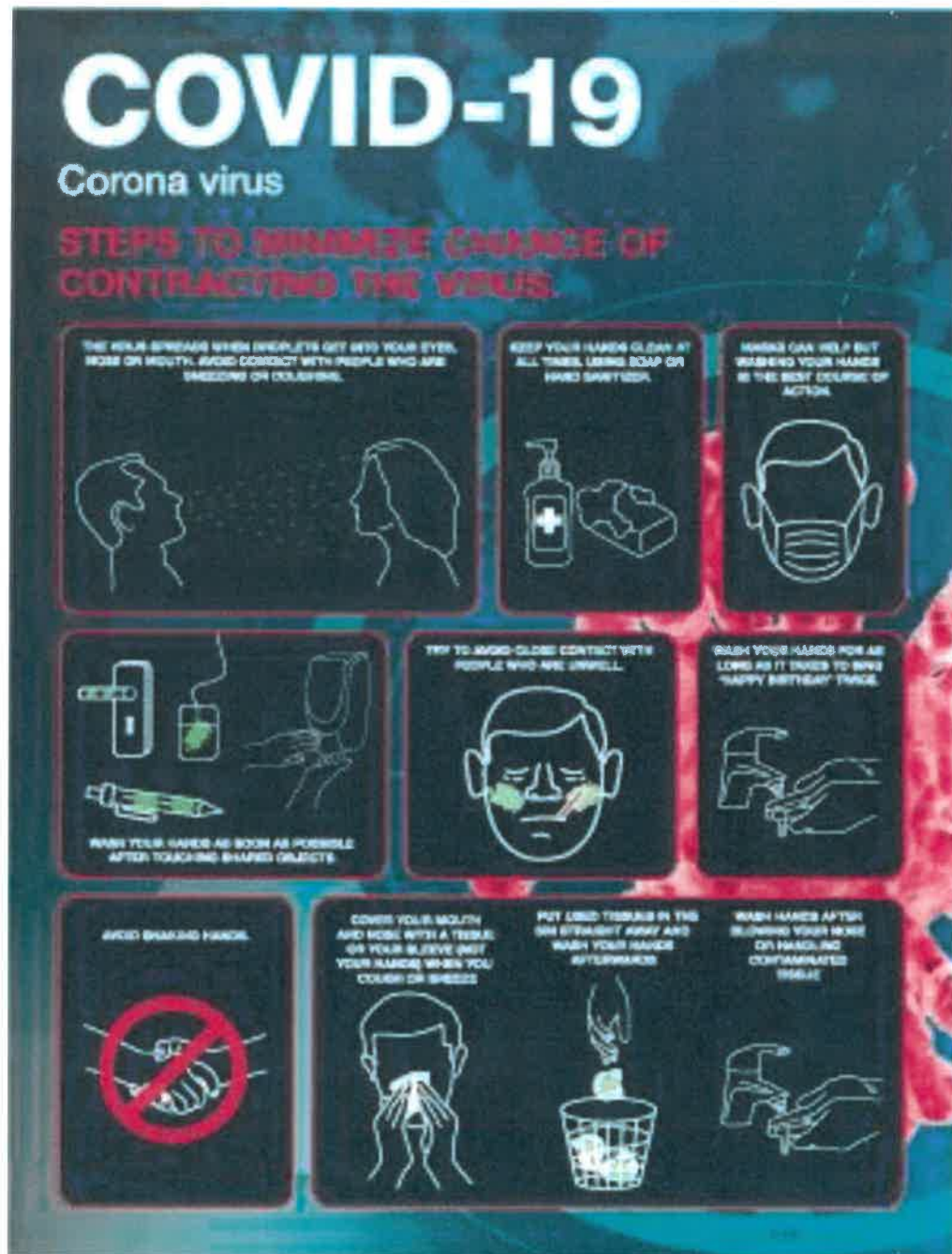


Figure 1: Typical COVID-19 information poster to be placed at designated areas at the mining sites.

- b) Sanitisers (as per World Health Organisation guidelines) should be made available at the entrance and exit points of all screening facilities, security entrances and all entrances and exits at the common areas at the mining camp, and at the starting points and end points of all places where close contact among workers is likely to occur, including in underground working places.

- c) Sanitisers (as per World Health Organisation guidelines) should be available in each consultation room and testing areas at the screening centre, and sanitisation should take place before and after every consultation.
- d) PPE is required for all staff, and PPE management programmes should be in place to ensure that PPE is worn correctly (including fit testing), replaced as necessary, stored correctly and disposed of safely.
- e) Employees not able to socially distance by 1 m should be provided with PPE as per the Guidance on PPE for COVID-19.
- f) Re-enforce compliance with the taking of chronic medication.

1.9.7.2 Screening and testing at the designated areas

Employers should comply with the following:

- a) Where there is company accommodation, initial pre-screening should be done at the residences, before getting to the work site. This is to isolate and quarantine any possible cases and suspects.
- b) At work, pre-screening of workers should be done before entering the facility (at the gate) either by nursing or security staff as per agreed-on protocol. This should include a temperature check.
- c) Employees with elevated temperatures should be referred directly to the isolation area for assessment by a Registered Nurse.
- d) Employees who do not have elevated temperatures should be referred to the site office for COVID-19 Risk Assessment and to complete a return to work medical (**Annexure B**).

1.9.7.3 Continuous Measures

Employers should comply with the following:

- a) Training of staff and employees.
- b) Continually re-enforcing of universal hygiene precautions.
- c) Enforce physical distancing in the workplace.
- d) Continue use of facemasks.
- e) Promotion of good hygiene practices.

The employer should allocate an appropriate person to monitor and document compliance with this EMP specifically for ensuring adherence to the Covid19 regulations as continually prescribed as the pandemic is monitored and as per WHO guidelines.

2.0 Implementing the environmental management plan (EMP)

2.1 Overview

In the preceding sections, the environmental aspects which may be affected by the proposed project have been categorized into negative and positive impacts. As an extension of the preceding sections, this section summarizes the objectives, indicators to be observed, schedules to be adhered to roles and responsibilities of various stakeholders to the EMP.

The following abbreviations are used to indicate who is responsible for what impact mitigation objective:

Site Manager and Environmental Control Officer	SM/ECO
Site Foreman	SF
Project Staff	PS
Project Proponent	PP
Environmental Assessment Practitioner	EAP
Environmental Commissioner	EC
Interested and Affected parties	I&AP

Table 2: Project Planning and Implementation

Objectives	Indicators	Schedule	Responsibility
Establish a strong environmental protocol from project implementation to final closure to ensure least possible impacts to the environment.	Resources (Financial, human, equipment and safety gear) are provided for the awareness, meetings, monitoring and reporting.	At the beginning of the exploration phase.	PP, SM
To maximize the economic spin off into the local economy	Expedite the appointment of a senior person to assume the responsibility of an environmental control officer (ENC)	At the planning stage or at the beginning of the implementation phase of the exploration phase.	PP, I & AP

Table 3: Implementing of the Positive Impacts

Objectives	Indicators	Schedule	Responsibility
<p>The objective pertaining to creation of employment/job relates to an internal company policy of maximizing people, particular in semi to unskilled job categories</p>	<p>At least 60 % of the semi-skilled to unskilled site workers should be locals</p>	<p>From the beginning of the exploration phase right through to the end.</p>	<p>SM, PP</p>
<p>To maximize the economic spin off into the local economy and nation at large through export taxes and VAT payment</p>	<p>The town of Omaruru should first be considered in the procurement of services and equipment, particularly those which can be sourced locally</p>	<p>From the planning of the exploration phase right through to the end</p>	<p>PP, SM</p>

Since tourism is the major economic sector of the economy of the Erongo Region, it will be appropriate in this regard for the proponent to identify and make use of exploration methods that cause the least visual intrusion and maintain the landscape to as much close to natural as possible by matching the existing contours of the terrain once a site has been explored.

Table 4: Implementing of the Negative Impacts

Objectives	Indicators	Schedule	Responsibility
To avoid any form of litter by paper, wires, human waste and drill bites on and around the exploration site	No litter or/and remnants of litter shall be visible around the project site	From the beginning of the exploration phase right through to the end	SF, PS, SM
To avoid any form of oil spills on and around the exploration site	No oil spillage or/and remnants of oil spillage shall be visible around the project site	From the beginning of the exploration phase right through to the end	SF, PS
To minimize land and soil disturbance	Driving tracks and excavation shall be restricted and only be visible within the project site.	From the beginning of the quarry phase right through to the end	SM, SF
To minimize dust generation on site and atmospheric pollution	Emissions/generation particulate content of the dust around the site and gravel roads shall not exceed maximum allowable concentration that may affect human being and animals. Mitigation measures prescribed under subsection 1.9.4.1 should be adhered to.	From the beginning of the quarry phase right through to the end	SM,SF
To protect and conserve fauna and	Minimum levels of habitat disturbance as	From the beginning of the quarry phase	

flora within the project area	prescribed in sub-section 1.9.5.1 should be adhered to.	right through to the end	SM,SF
To prevent the potential spread of HIV/AIDS & the Covid19 virus	No potential spread of HIV/AIDS by the employees and mitigation measures prescribed in sub-section 1.9.6.1 & 1.9.7 should be adhered to	From the beginning of the quarry phase right through to the end	SM,SF
To ensure compliance with statutory requirements	Assurance measures shall be put in place and Periodic inspections aimed at corrective action undertaken, recorded and documented	From the beginning of the quarry phase right through to the end	EC, PP

2.2 Monitoring, reporting and corrective action

2.2.1 Overview

Monitoring of the EMP performance for the proposed surface mining project by Royal Unity Mining CC emphasizes early dictation, reporting and corrective action. It is divided into three parts, namely:

- Monitoring of activities and effects to be undertaken by the environmental control officer (ECO)
- Reporting of all incidents and situations which have the potential of jeopardizing compliance of statutory provisions as well as provisions of this EMP.
- Taking corrective measures which are prompt, adequate and long lasting in addressing non-compliance activities or behaviour.

Table 5: Solid waste disposal: wire, paper, drill bits, and human waste

Mitigation	Compliance	Follow up Action Required	By Whom	When	Date Completed
Are disposal drums/bins available or full?					
Is there any litter around the site and its surroundings?					

Table 6: Oil spillage or used oil

Mitigation	Compliance	Follow up Action Required	By Whom	When	Date When Completed
Are disposal Drums available or full?					
Is there any oil spills around the site and its surroundings?					

Table 7: Land and Soil Disturbance

Mitigation	Compliance	Follow up Action Required	By Whom	When	Date Completed
Are there any deviations from the provisions of the EMP on land and soil disturbance?					
Are car track barricades in place?					

Table 8: Dust generation on site and gravel roads stretch

Mitigation	Compliance	Follow up Action Required	By Whom	When	Date Completed
Are there any deviations from the provisions of the EMP on dust pollution?					
Are the fume and particulate levels acceptable?					

Table 9: Biodiversity (fauna and flora)

Mitigation	Compliance	Follow up Action Required	By Whom	When	Date Completed
Are there any deviations from the provisions of the EMP on biodiversity?					
It is traipses harvesting plant taking place feeding of animal or introduction of animals?					

Table 10: Compliance

Mitigation	Compliance	Follow up Action Required	By Whom	When	Date Completed
Are staff members and site visitors aware of the provisions of the EMP?					
Is there a copy of the EMP on site?					
Ask at least two people on various provisions of the EMP?					

2.3 Environmental awareness

Environmental regulations, rules and procedures apply to everybody, including subcontractors, visitors, permanent and temporal workers. Therefore anybody who finds him or herself within the boundaries of the mining area must adhere to the Environmental Code of Conduct as outlined in this section of the EMP.

- The term environment refers to the whole surrounding around us, or conditions in which a person, animal, or plant lives or operates. In context of this project, the term environment denotes the natural surroundings in a particular geographical area, especially as affected by human activity.
- The environmental control officer will implement on site environmental guidelines and has the authority to issue warnings as well as discipline any person who transgresses environmental rules and procedures. Persistent transgression of environmental rules will result in a disciplinary hearing and thereafter continued noncompliance behaviour will result in permanent removal from the exploration site.
- Continuous assistance from the environmental control officer must be maintained in case some members of the project team do not understand or do not know how to keep up with established environmental guidelines.

2.3.1 Natural environment management guidelines

- a. Never feed, tease or play with, hunt, kill, destroy or set devices to trap any wild animal (including birds, reptiles and mammals), livestock or pets. Do not bring any wild animal or pet to the exploration site;
- b. Do not pick any plant or take any animal out of the exploration area EVER. You will be prosecuted and asked to leave the project area;
- c. Never leave rubbish and food scraps or bones where it will attract animals, birds or insects. Rubbish must be thrown into the correct rubbish bins or bags provided;
- d. Protect the surface material by not driving over it unnecessarily;
- e. Do not drive over, build upon, or camp on any sensitive habitats for plants and animals;
- f. Do not cut down any part of living trees / bushes for firewood;
- g. Do not destroy bird nest, dens, burrow pits, termite hills etc. or any other natural objects in the area.

2.3.2 Vehicle use and access guidance

- i. Never drive any vehicle without a valid licence for that particular vehicle and do not drive any vehicle that appears not to be road-worthy;
- ii. Never drive any vehicle when under the influence of alcohol or drugs;
- iii. DO NOT make any new roads without permission. Stay within demarcated areas;
- iv. Avoid U-Turns and large turning circles. 3-point turns are encouraged. Do not ever drive on rocky slopes;
- v. Stay on the road, do not make a second set of tracks and do not cut corners;
- vi. DO NOT SPEED - 60 km per hour for normal vehicles and 30km per hour for heavy trucks on gravel roads and around the site;
- vii. No off-road driving is allowed;
- viii. Vehicles may only drive on demarcated roads;
- ix. Adhere to speed limits (i.e. 60 km per hour for normal vehicles and 30km per hour for heavy trucks on gravel roads and around the site) and drive with headlights switched on along any gravel road.

2.3.3 Control of dust guidance

- a. Do not make new roads or clear any vegetation unless instructed to do so by your Contractor or the Environmental control officer or site manager;
- b. Do not try to disturb the surface of the natural landscape as little as possible.
- c. Do not speed on gravel roads and around the exploration site, and adhere to the speed limits.
- d. Apply water to suppress the dust were the generation of the dust on either gravel roads or exploration site is beyond control.

2.3.4 Health and safety guidance

- a. Drink lots of water every day, but only from the fresh water supplies;
- b. Take the necessary precautions to avoid contracting the Covid19 & HIV/AIDS virus;
- c. Never enter any area that is out of bounds, or demarcated as dangerous or wander off without informing or permission of team leader;
- d. Never climb over any fence or trespass on private property without permission of the landowner or consultation with the Environmental control officer, Site Manager;

- e. Report to your Contractor if you see a stranger or unauthorised person in the exploration area;
- f. Do not remove any vehicle, machinery, equipment or any other object from the exploration camp site or along the profile or at a seismic testing station without permission of your Contractor or Site Manager;
- g. Wear protective clothing and equipment required and according to instructions from your Contractor or Site Manager;
- h. Don not engages in sexual relationship with minor and also adhere to zero tolerance to spread HIV/AIDS.

2.3.5 Preventing pollution and dangerous working conditions guidance

- I. Never throw any hazardous substance such as fuel, oil, solvents, etc. into streams or onto the ground;
- II. Never allow any hazardous substance to soak into the soil;
- III. Immediately tell your Contractor or Environmental control officer when you spill, or notice any hazardous substance being spilled anywhere in the field or camp;
- IV. Report to your Contractor or Environmental control officer when you notice any container, which may hold a hazardous substance, overflow, leak or drip;
- V. Immediately report to your Contractor or Environmental control officer when you notice overflowing problems or unhygienic conditions at the ablution facilities, vehicles, equipment and machinery, containers and other surfaces.

2.3.6 Disposal of solid and liquid waste guidance

- a. Learn to know the difference between the two main types of waste, namely: General Waste; and Hazardous Waste.
- b. Learn how to identify the containers, bins, drums or bags for the different types of wastes. Never dispose of hazardous waste in the bins or skips intended for general waste or exploration rubble;
- c. Never burn or bury any waste on the camp or in the field;
- d. Never overfill any waste container, drum, bin or bag. Inform your Contractor or the Environmental control officer/ the Project Geologist / Site Manager if the containers, drums, bins or skips are nearly full;
- e. Never litter or throwaway any waste on the site, in the field or along any road.
- f. No illegal dumping;
- g. Littering is prohibited.

2.3.7 Dealing with environmental complaints guidance

- a. If you have any complaint about dangerous working conditions or potential pollution to the environment, immediately report this to the Environmental control officer
- b. If any person complains to you about noise, lights, littering, pollution, or any other harmful or dangerous condition, immediately report this to your Contractor.

2.3.8 Environmental Personnel Register

Table 11 shows the Environmental Personnel Register to be signed by every person who receives or attends the Environmental Awareness Training or who has the training material explained to him or her or in possession of the training material.

Table 11: Environmental Personnel Register

Date	Name	Company	Signature

2.3.9 Site closure and rehabilitation

In the context the proposed project, rehabilitation refers to the process of returning disturbed land and soil to some degree of its pristine state. The scope of the Royal Unity Mining CC site rehabilitation emphasizes the backfilling of sampling/drilling holes and cover with top soil in areas that will be disturbed by mining/ exploration activities. These will be but not limited to the access road, vehicle tracks around the site, removal and restoration of areas covered by stockpile and rock piles. Furthermore, this section outlines rehabilitation objectives and proposes rehabilitation commitments which the proponent shall adhere to.

2.3.9.1 Objectives of the site closure and rehabilitation

- Reduction or elimination of the need for a long term management program to control and minimize the long term impacts.
 - Clean up, treatment or restoration of disturbed or/and contaminated areas.

In addition, the following rehabilitation measures are important and should be implemented wherever necessary:

- A site inspection will be held after completion of the exploration process to determine the nature and scope of the rehabilitation work to be undertaken. The rehabilitation will be done to the satisfaction of both Royal Unity Mining CC and MEFT: DEA.
- The rehabilitation work should commence soon after the end the active mining period.
- The access road and all vehicle tracks should be rehabilitated by raking or dragging with tyres or tree branches (other suitable methods) behind a vehicle.
- With regard to both biological productivity and erosion, topsoil is arguably the most important resource in the project area, for that reason, the recovered topsoil and subsoil should be utilized to reconstruct the original soil profile.
- All waste shall be removed, and potential hazards, particularly pits closed and left in a safe disposition.
- All rehabilitated areas shall be considered no go areas and the environmental control officer shall ensure that none of the staff members enters the area after rehabilitation.

3.0 Conclusion and recommendations

3.1 Conclusion

The fundamental principle behind environmental assessments (EAs) is to ensure a balance in social, economic and environmental needs, particularly when proposed projects are of such a nature that they negatively affect some needs at the expense of the other. Ultimately, EAs should enhance proposed projects' propensity towards being more beneficial and important by suggesting measures, designing and implementing programs and plans to that effect.

Against this background, it is anticipated that this project will be beneficial and important to the proponent, national economy, the local social conditions and the local economy if the guidelines and mitigation measures suggested in this EMP are implemented. However, it should be acknowledged that disturbance to the environment will be incurred, but that will be minimal and within legally acceptable levels.

This EMP should be viewed as a framework for integrating mitigation measures and applicable legal tools to ensure both compliance and sustainability. It is therefore very important that the proponent provides adequate resources (human, financial, tangible and intangible assets) for the implementation of the plan.

3.2 Recommendations

The proposed exploration activities for Base & Rare Metals, Dimension Stone, Industrial Minerals and Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476, Omaruru Constituency, Erongo Region, Namibia may go ahead provided that all the provisions of the EMP as well as all issued permit are followed. Recommended actions to be implemented by Royal Unity Mining CC as part of the management of the likely impacts through implementations of the EMP are:

- Contract an Environmental control officer / Consultant / suitable in-house resources person to lead and further develop, implement and promote environmental culture through awareness raising of the workforce, contractors and sub-contractors in the field during the whole duration of the proposed exploration programme period;

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- Provide with other support, human and financial resources, for the implementation of the proposed mitigations and effective environmental management during the planned exploration activities ;
 - Develop a simplified environmental induction and awareness programme for all the workforce, contractors and sub-contractors;
 - Where contracted service providers are likely to cause environmental Impacts, these will need to identified and contract agreements need to be developed with costing provisions for environmental liabilities;
 - Implement internal and external monitoring of the actions and management strategies developed during the mineral exploration and possible mining duration and a final Environmental Monitoring report be prepared by the Environmental control officer / Consultant / Suitable in-house resource person and to be submitted to the regulators and to end the proposed quarry project;
 - Develop and implement a monitoring programme that will fit into the overall company's Environmental Management Systems (EMS) as well as for any future EIA for possible quarrying/mining projects.

It is hereby recommended that Royal Unity Mining CC take all the necessary steps to implement all the recommendations of the EMP for the successful implementation and completion of the proposed exploration project for Base & Rare Metals, Dimension Stone, Industrial Minerals And Precious Stones on the eastern portion of Farm Kampaneno 104 under EPL 5476, Omaruru Constituency, Erongo Region, Namibia .

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