

# **ENVIRONMENTAL SCOPING ASSESSMENT REPORT**

# APP: 001571



PROPOSED EXPLORATION ACTIVITIES FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, PRECIOUS METALS AND SEMI-PRECIOUS STONES ON MINING CLAIMS 73617, 73618, 73619, 73620 AND 73621 IN KUNENE REGION

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## **PROJECT REPORT DETAILS**

PROJECT TITLE	PROPOSED EXPLORATION ACTIVITIES FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, PRECIOUS METALS AND SEMI-PRECIOUS STONES ON MINING CLAIMS 73617, 73618, 73619, 73620 AND 73621 IN KUNENE REGION.
MEFT APP NO:	001571
PROPONENT	MS. NATASHA DELECIA HARASES P.O. BOX 289 OKAHANDJA
LOCATION	KUNENE REGION
DATE	SEPTEMBER 2023

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### **ABBREVIATIONS**

AIDS	Acquired Immune Deficiency	
	Syndrome	
BID	Background Information Document	
DEA	Directorate of Environmental Affairs	
EA	Environmental Assessment	
ECC	Environmental Clearance Certificate	
EIA	Environmental Impact Assessment	
EMA	Environmental Management Act No.7	
	Of 2007	
EMP	Environmental Management Plan	
EPL	Exclusive Prospecting Licence	
ESAR	Environmental Scoping Assessment	
	Report	
GPS	Global Positioning System	
На	Hectare	
HIV	Human Immunodeficiency Virus	
IAPs	Interested and Affected Parties	
Km	Kilometre	
MEFT	Ministry Of Environment, Forestry and	
	Tourism	
ML	Mining Licence	
Mm	Millimetre	
MME	Ministry of Mines and Energy	
NAMPOWER	Namibia Power Corporation	
PPEs	Personal Protective Equipments	
PPP	Public Participatory Process	
ToR	Terms of Reference	



## GLOSSARY

Definitions given below are for explanatory purposes only.

Activity	The physical work that a Proponent intends to construct, operate, change, decommission, or an activity that a Proponent proposes to carry out.
Alternative	A choice limited to one of two or more possibilities, as of things, proposals, or courses of action, the selection of which precludes any other possibility.
Assessment	The process of identifying, predicting, and evaluating the significant effects of activities on the environment; and the risks and consequences of activities and their alternatives and options for mitigation with a view to minimise the effects/impacts of activities on the environment.
Competent Authority	A body or person authorized under the local authorities act or Environmental Management Act to enforce the rule of law.
Contaminated Water	Water polluted by the Contractor's activities, e.g. concrete water, and runoff from plant/personnel wash areas.
Cumulative Impacts	In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts from similar or diverse activities or undertakings in the area.
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act – refers to "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".
Environmental Impact Assessment (EIA)	The process of examining the environmental effects of a development as prescribed by the Environmental Impact Assessment Regulations (2012) for activities listed as List of Activities which may not be undertaken without an Environmental Clearance Certificate from the Environmental Commissioner.
Environmental Management Plan (EMP)	A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.



Independent Environmental Control Officer	A qualified professional independent from the Proponent and Contractor who oversees the construction phase and ensure that all environmental specifications and EMP requirements are met during the phase. Will also be responsible for the monitoring, revising, and verifying of compliance with the EMP by the Contractor.
Interested & Affected Parties (IAP)	Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have influence over any aspect of the activity.
Listed Activity	An activity listed in terms of the Environmental Management Act (No. 7 of 2007) and its EIA Regulations (2012) and the List of Activities which may not be carried out without an Environmental Clearance Certificate from the Environmental Commissioner.



### **EXECUTIVE SUMMARY**

Ms Natasha D. Harases plans to carry out small-scale exploration activities of Base and Rare Metals, Industrial Minerals, Precious Metals and Semi-Precious stones on mining claims 73617-7321 in Kunene region.

This planned project is a listed activity according to the Environmental Management Act of 2007 and its Environmental Impact Assessment (EIA) Regulations of 2012.

The general objective of the environmental assessment was to summarize and evaluate the probable environmental impacts (both positive and negative), which may possibly result from the anticipated exploration activities on the mining claims.

Possible impacts identified and assessed during the environmental assessment that may be expected during the exploration project include: dust & noise, health & safety, visual, ecological, groundwater and surface water, heritage and socioeconomic.

The Environmental Management Plan (EMP) shall guide the proponent to ensure that the negative impacts are reduced to minimal or zero during the mineral exploration period.

The proponent shall utilize the available historical mineral occurrence data to determine the mineral exploration/prospecting within the mining claims. Surface investigations and other methods such as geophysical surveys, drilling, trenching and bulk sampling shall be carried out. Traditional ways of trenches and shallow pitting will be used; reverse circulation drilling will be used for deeper targets.

The assessment established that no damage, disturbance or any material, fauna and flora species protected under the National Heritage Act (27 of 2004) is likely to happen.



## **1. INTRODUCTION**

### 1.1 Project Background

The Kunene Region is found in the north-western part of Namibia. The region encompasses the western part of former Ovambo, Koakoland, Damaraland north of the Ugab river. The Region is generally rich in mineralised rock formations. Mining takes place on a small scale as no large-scale operations occur in the area. Small-scale extraction, value adding and marketing of crystal rocks for local tourism market takes place.

Ms. Natasha Delecia Harases (the proponent) intends to conduct small-scale exploration/prospecting activities on Mining Claims 73617-73621 in Kunene Region. The Mining Claims measures 81.4549 hectares (ha) in total.

This proposed project is a listed activity in terms of the Environmental Management Act (EMA) of 2007. Authorization is required for an Environmental Clearance Certificate (ECC) to be issued by the competent authority (Ministry of Environment, Forestry and Tourism) to the Proponent, in terms of the Environmental Management Act No.7 of 2007 and it's EIA Regulations of 2012.

### 1.2 Purpose of the Scoping Report

In agreement with the Environmental Management Act No.7 of 2007 and the Environmental Impact Assessment (EIA) Regulations (2012), the aim of this Scoping Report is to:

- Provide a depiction of the planned project by making sure that enough information is provided to all stakeholders, Interested and Affected Parties in order to identify issues and concerns of relevance;
- ✓ Define the environmental and socio-economic context of the intended proposed project, to offer all stakeholders, Interested and Affected Parties a chance to share their suggestions/concerns regarding the proposed project.
- Provide a summary of the Public Participation Process, as well as a map and location of the proposed project.



- Potential environmental impacts of the development (negative and positive impacts), and evaluate the consequence of the identified impacts.
- ✓ Recommend mitigate measures that will be outlined more in the Environmental Management Plan (EMP) to minimise and/or lessen likely negative impacts, which cannot be avoided.

1.3 Need and Desirability of the project

In our country, the mining sector contributes to the country's Gross Domestic Product (GDP), state tax revenues and export returns.

Should the anticipated proposed exploration activities be a success, and a distinct viable mineral resource concentrations are found, exploration procedures shall result in socio-economic growth in the region/country.

In order to meet the demand of the local and international markets, it is highly recommended that the exploration of mineral resources continues in Namibia. This proposed exploration project will likely provide the local communities with technical skills as well as temporary job opportunities, this will help increase their socio-economic status in the region. Moreover, the proposed exploration project may feasibly improve to mining work contributing to the Namibian economy.

1.4 Terms of Reference (ToR)

The Terms of Reference for the projected project activities is founded on the requirements set out by the Environmental Management Act (EMA) of No.7 of (2007) and its Environmental Impact Assessment (EIA) Regulations (2012). The procedure covered the below, which are stated in this document:

- Providing a more comprehensive description of the planned project activities;
- Identification of all legislations, policies and guidelines that have reference to the proposed project activities;
- ✓ Identification of existing environmental (both ecological, socio and economic) conditions of the reception environment in order to define environmental sensitivities;

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- Consultation with Interested and Affected Parties (I&APs) and authorities of the facts or details of the planned development and applicable provide them with a sensible opportunity to take part during the process;
- ✓ Consider likely environmental impacts of the development (negative and positive impacts) and evaluate the significance of the identified impacts.
- Recommend mitigating measures that will be defined more in the Environmental Management Plan (EMP) to lessen or reduce likely negative impacts that cannot be avoided.
- 1.5 Assumptions and Limitations
  - Certain information provided in this report is centred on literature review (research) of available documents and maps which the relevant institutions or private institutions are in possession of.
  - ✓ It is expected that all permits or licence requirements, other than the ECC, related with the proposed project will be addressed as separate examinations and are not included in this EA process;
  - ✓ It is anticipated that all the information provided by the Proponent and relevant authorities consulted is true and that those above-mentioned have disclosed all accurate necessary information available;
  - ✓ It is predicted that there will be no changes to the project or the affected environment concerning this scoping report and execution of the project that could greatly influence results, recommendations with respect to mitigation and managing and control;
  - ✓ The assessment is centred on the main environmental, social and biophysical and legislative framework.

## 1.6 Project Alternatives Considered

According to the Environmental Management Act, No. 7 of 2007 and its EIA Regulations of 2012, alternatives considered should be well analysed to confirm that the project progression and decision-making process, likely environmental impacts, expenses, and viability have been considered leading to the highest preference being recognized.

• Access Roads – Existing road networks will be used during the duration of the proposed project, should any new access be made, it shall be done with the permission of landowners and the relevant competent authorities.

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- Minerals Occurrence Location: Several minerals economic deposits are known to exist in various locations of Namibia, some have already been explored by several companies over the years. There are no alternative locations considered for explorations.
- Equipments: The equipment choices considered by the proponent are considered adequate for the project. The proponent may opt to employ other improved equipment in the future when deemed necessary in order to maximize the project output.
- Water supply: During the exploration project water will be brought to site from the nearest town/village and stored in containers or tanks. The alternative is to use existing boreholes or do a hydro search to drill a new borehole with permission from land owners and competent authorities.
- Alternative power supply: Power will be sourced from a generator; another alternative will be to use solar panels.

### 1.6.1 The No-go Alternative

If the anticipated project does not take place, the residents will lose out on opportunities, which may probably benefit the community. This planned project can meaningfully contribute to the economy of our country as well; and essentially improve socio-economic benefits in the concerned region as well.

### 1.6.2 Proposed Exploration Procedures/Techniques

Exploration of the commodities shall comprise defining the historical mineral occurrences within the study area where the mining claims are located; which shall take into consideration surveys, drilling, trenching and sampling. A comprehensive planning of trenching measurements and gravel processing shall be done by the proponent to have a better choice of investment requirements.

• <u>Geological Mapping:</u> This includes a desktop evaluation of geographical area maps and observations. The review of geological maps of the area and onsite ground observations and an update of the information obtained during previous geological studies of the area (where possible).

• <u>Lithology Geochemical Surveys:</u> Rock samples will be collected and taken for analysis to be carried out by analytical chemistry laboratories to ensure if there is adequate/satisfactory quantities of base & rare or precious metal or other



minerals of interest are present. Trenches and/or pits may be dug depending on the commodity. To make sure satisfactory risks mitigation, all diggings will be opened and closed straightaway after finding the required samples; and/or the sites will be fenced off until the trenches or pits are closed with the owner of land's permission and relevant authority.

• <u>Geophysical surveys:</u> This includes data collection of the substrata, the need for an aero-geophysical contractor might be needed by air or ground, through sensors such as radar, magnetic and electromagnetic to detect any mineralization in the target area and are carried out to establish the mineralisation. Ground geophysical surveys may be carried out, where required using vehicle-mounted sensors or may be hand-held by staff members.

• <u>Detailed Drilling (Invasive Method)</u>: Should any of the samples taken for analytical chemistry laboratories be found positive, holes will be drilled accordingly and more drill samples will be further collected/taken for investigation. Reverse circulation drilling may be considered for deeper targets, this method uses a pneumatic hammer which drives a rotating tungsten-steel bit. This method produces an uncontaminated big size sample comprised of rock chips. Whilst the Diamond drilling may be considered for better geological control and for carrying out processing trials.

Soil sampling generally comprises of small pits (±20cm X 20cm X 30cm) being excavated, where 1kg samples can be extracted and filtered to collect 50g of material.

Should the drilling produce positive results, the test quarrying is only a component of exploration activities, to be done at a very small-scale level on directed sites of the Mining Claims, to support the Proponent to acquire sufficient and reliable exploration data. Areas that will be found to comprise good value rocks in profitable volumes will then be delineated and a submission will be launched with the Ministry of Mines and Energy (MME) for permitting of a valid mining license, of which a separate Environmental Impact Assessment (EIA) will be carried out for mining purposes. Consequently, it should be noted that this Environmental Scoping Assessment (ESA) procedure and its succeeding reporting will only cover the proposed exploration activities.



## 2. PROJECT LOCATION AND DESCRIPTION

The Mining Claims can be accessed via D3703 road North-West of Opuwo in the Kunene region. GPS coordinates of latitude: -18.024496° and longitude: 13.760781°.

The proponent (Ms Natasha Delecia Harases) proposes to conduct small-scale exploration activities of Base and Rare Metals, Industrial Minerals, Precious Metals and Semi-Precious Stones. This proposed project is a listed activity and requires an Environmental Clearance Certificate according to the Environmental Management Act of 2007 and its Environmental Impact Assessment (EIA) Regulations of 2012.



Figure 1: Location of Mining Claims 73617-73621 Kunene Region (Source: mme mining cadastre portal).





Figure 2: Aerial photo of Mining Claims 73617-73621 (Source: mme mining cadastre portal).



### **3. LEGISLATIVE FRAMEWORK**

3.1 The Environmental Management Act (No.7 of 2007)

The Environmental Management Act (also referred to as the EMA), requires that for each and every activity which is listed under the EIA regulations, an Environmental Clearance Certificate must be acquired. The purpose of the environmental scoping assessment is to identify, evaluate and establish likely environmental impacts that may arise from the planned activity.

Section 7 of the Environmental Impact Assessment (EIA) Regulations (GN notice No. 30 of 2012), if an activity is listed, an Environmental Scoping Report and Environmental Management Plan should be submitted to the Environmental Commissioner (EC) as part of the application for an Environmental Clearance Certificate (ECC). Please see below:

"MINING AN QUARRYING ACTIVITIES

- The construction of facilities for any process or activities which requires a licence, right or other form authorisation, and the renewal of a licence, right or other form of authorisation in terms of the Minerals (Prospecting and Mining Act) of 1992.
- Other forms of mining or extraction of any natural resources whether regulated by law or not.
- Resource extraction, manipulation, conservation and related activities.
- The extraction or processing of gas from natural and non-natural resources, including gas from landfill sites.
- The extraction of peat."

### 3.2 Purpose of the Environmental Management Plan (EMP)

The EMP is the tool used to reduce the impacts identified during the EA process. The EMA (No. 7 of 2007) instructs that for each activity undergoing an EIA process, an Environmental Management Plan (EMP) should be developed. The EMP outlines mitigation measures alongside specific phases, stages or processes for the proposed project. The EMP for this specific project will outline specific roles and responsibilities that the proponent will adhere to.



## 3.3 Related National Legislations Table 1: Related national legislations

Legislation	Applicability	Legislation Objective(s)
The Namibian Constitution	To maintain the ecosystems, ecological processes and biological diversity by conducting Environmental Impact Assessment (EIA).	"The state shall actively promote and maintain the welfare of the people by adopting policies that are aimed atmaintenance of ecosystems, essential ecological processes and the biological diversity of Namibia and utilization of natural resources on a sustainable basis for the benefit of all Namibians, both for present and future".
Environmental Management Act No.7 of 2007	Legal requirement to carry out an Environmental Impact Assessment (EIA).	The Environmental Management Act No.7 of 2007 promotes the sustainable management of the environment and the use of natural resources and provides for the process of assessment and control of activities which may have significant effects on the environment; and provides for incidental

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		matters. The Act ensures that potential impacts are considered, a comprehensive stakeholder's consultation is carried out, all interested and affected parties are given a chance to comment/object on the project. The Act as well provides a list of activities that may not be undertaken without an Environmental Clearance Certificate.
Environmental Impact Assessment (EIA) Regulations (GN notice No. 30 of 2012)	Provides guidelines for Environmental Assessments.	Provides procedures for Environmental Assessments.
Minerals (Prospecting and Mining) Act No.33 of 1992 As amended Minerals (Prospecting and Mining) Amendment Act 8 of 2008	Governs all mining activities in the country.	To provide for the reconnaissance, prospecting and mining for, and disposal of, and the exercise of control over, minerals in Namibia; and to provide for matters incidental thereto.
Public Health Act No. 36 of 1919		No person shall cause a nuisance or shall suffer

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	Safeguards the public is protected from noise, dust and air pollution.	to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.
Water Resources Management Act No. 11 of 2013	Guarantees that the water systems are not polluted and that pollution control mechanisms are in place.	An Act to provide for the management, protection, development, use and conservation of water resources; to provide for the regulation and monitoring of water services and to provide for incidental matters.
Environmental Policy Framework (1995)	Provides guidelines for EIA.	The Policy ensures that all developmental projects are subjected to environmental assessments so that all potential impacts are taken into consideration and incorporated into the planning and development stages.
Labour Act No. 11 of 2007		The Labour Act regulates labour in general and

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	Regulates labour in general, remuneration, etc in the country.	protects the safety, health and welfare of employees. The regulation of 1997 relating to the safety and health of employees at work, sets out the duties of employers, welfare and facilities at the work place.
Soil Conservation Act No. 76 of 1969	Promotes soil conservation.	The Act promotes the conservation of soil and the prevention of soil erosion.
National Heritage Act No. 27 of 2004	Provides protection and conservation of places and objects that has national heritage significance; and the registration of such places or objects.	The Act makes provision for the protection of places and objects of heritage significance and the registration of such places And objects. Section 46 of the Act, further prohibits the removal, damage, alteration, excavation of national sites or remains; and Section 48, sets out the procedure for application and granting permits for exploration activities such as trenching, drilling, etc.

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## 4. ENVIRONMENTAL ASSESSMENT APPROACH AND METHODOLOGY

PART 1: ENVIRONMENTAL SCREENING (Project commencement and registering with the Competent Authority).

- Includes meeting with the client, conversing about anticipated timeframes, logistics and project explanations.
- Involves literature review (desktop site Baseline analysis) and compilation of a Background Information Document (BID).
- Project registering with the Ministry of Environment, Forestry and Tourism (MEFT) Department of Environmental Affairs (DEA) on the EIA online portal.
- Once the project is registered, the Environmental Commissioner recommends whether a complete Environmental Impact Assessment or Environmental Scoping Assessment is mandatory for the anticipated project.

PART 2: ENVIRONMENTAL SCOPING ASSESSMENT (INCLUDING PUBLIC PARTICIPATION PROCESS (PPP)

- A complete desktop baseline study and literature review in the study area is carried out by means of remote sensing to recognize and define possible sites which are probable to be impacted by the proposed project prior to site visit.
- The Environmental Consultant carries out site visit to form a foundation for the assessment and evaluate the sensitivity of the surrounding biophysical and socio-economic environment and the socio-economic benefits of the anticipated project.
- Data or Information found during the course of the site visit supplements the literature review and is used by the Environmental Consultant to:
  - \* Outline the noticeable likely risks related to the proposed project,
  - \* Make available beneficial mitigation measures to reduce the risks; and
  - \* Create recommendations for supplementary revisions where needed.
- Probable participants (local governments, constituency offices, farmers etc.) are acknowledged and they are made aware of the proposed project. Interested and Affected Parties (I&APs) details is collected for upcoming communication associated to the proposed project.
- The Background Information Document (BID) normally prepared during part/phase 1 is shared with recognized and registered I&Aps during this

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period. The BID summarizes proposed project information such as the project description of activities, project motivation, likely impacts, and EA process that will be followed.

• Comments, inputs, issues or concerns raised up by I&APs during the progression are noted for consideration in the Environmental Assessment report and development of the Environmental Management Plan (EMP).

PART 3: ENVIRONMENTAL REPORTING: ENVIRONMENTAL SCOPING ASSSESSMENT REPORT AND THE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

• This is the data analysis phase suitable methods are used to yield proper project outcomes; merging of the results in the method of a report that will be made available to the client for appraisal and remarks. The EMP is drafted to mitigate and manage the identified impacts in the ESA report.



### **5. IMPACT IDENTIFICATION**

The likely negative impacts that might result from the anticipated exploration/prospecting activities are listed below:

5.1 Probable positive impacts

- Socio-economic development (through employment creation);
- Skills and knowledge transfer;
- o infrastructure interrelated development benefits;
- Increased support for local businesses in the area (through the purchasing of equipment spare parts, greases, food, etc.);
- Better local economic development and economic growth.

5.2 Probable negative impacts

- Soil disturbance: Likely causes of soil contamination comprise petrochemical spills/leaks from vehicles (bakkies), water trucks, drill rig, fuel operated generator as well as the trailer mounted fuel tank for fuel storage.
- Surface and groundwater pollution/contamination: There is no surface water in the area as it receives rainfall occasionally, and communities rely on groundwater. Consequently, to avoid putting pressure on this scarce resource, the project will source water offsite and transport it in water tankers.
- Noise Disturbance.
- Impact on Air quality, Dust and Emissions: The likely cause of air pollution would be dust and fumes produced by project vehicles and/or trucks, diesel power-driven machinery; and dust from drilling.
- Waste generation
- Biodiversity loss and habitat destruction: likely cause of the minimal clearing of plants/vegetation will be to make way for access roads (where required) and possibly put up temporary staff accommodation onsite during field exploration for the exploration team.
- Alien Invasive Species (AIS): Plants that are introduced accidentally or deliberately into a natural environment (exploration/study area) where they are not usually found; and this may or might negatively have serious consequences on the new environment. They represent a threat on the native plant
- Safety and Health
- Visual and Sense of Place: Exploration project activities generally leave marks on the local landscape when rehabilitation is not done properly, this normally depend on the site features, methods used during exploration and

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the depending on the site characteristics, exploration method and power/intensity of the activities.

Cumulative impacts are defined as "impacts that result from the consecutive, incremental, and/or collective effects of an action, project, or activity (collectively referred to in this document as growths add-on to other existing, intended, and/or reasonably estimated future ones".

From the scoping assessment carried out, the below cumulative impacts are defined below:

- Reduced visual impact and sense of place;
- Loss of vegetation and habitant;
- o Increased benefits to the farm owners and local contractors; and
- Employment opportunities, skills and knowledge transfer.



## 6. INFRASTRUCTURE AND SERVICES

### Roads

Existing roads will be used to gain access to the exploration site; and for any new road that will be created proper procedures and regulations will be adhered to. The mining claims are located close to D3703 road below.

### Staff Accommodation

Ten (10) or less likely temporary job opportunities are expected during the exploration stage. Personnel will be hired from the nearest town or settlements/villages. The workforces will be positioned at different stages of exploration including soil sampling, geological mapping, geophysical surveys, and drilling operations.

For the duration of the exploration project, the workers will reside in Opuwo or settlements/villages; and be transported to and from the site. The Proponent shall make transport available for the employees. Nevertheless, during the latter part of the prospecting (drilling) personnel may be required to stay at the exploration site in campsites or in existing housing rented from the property/farm owner if possible.

The Proponent shall arrange for suitable living facilities during this exploration period. Should the Proponent consider setting up camps for the exploration team on site, precaution and safe use of flammable materials should be adhered to.

### IT and Communication

When the proposed project commences, the proponent shall provide the prospecting/exploration team (staff) with two-way radios to consent the team to communicate efficiently.

Fuel Storage and Lubricants

All light vehicles will be fuelled in Opuwo. A 1000 litres fuel trailer will be made available onsite (where necessary) to operate various equipments needed for the



duration of the prospecting/exploration project. Consumables and lubricants shall be stored at a designated area at the site.

### Fire Fighting

Potable fire extinguishers shall be fitted as required in vehicles onsite and in mobile containers where possible.

### Mobile Equipment

The proponent's vehicle fleet shall be optimised during the following project stage. Provision shall be made available for 4x4 vehicles and a drill rig (where necessary).

### Electricity

Electricity requirement for this proposed project is nominal/minimal, as power required will only be for lighting, powering small machinery that will be used during the mineral exploration. Alternatively, the proponent will provide a generator that will be used on-site.

### Water Supply

Water required will be minimal. Hence, the water will be brought onsite and stored in containers or in a tank. The water will be used for consumption and cleaning. The water used for drilling will be re-used.

### Waste Disposal

All waste produced will be disposed of at the local dumpsite/landfill used by all local residents in the study and the surrounding area. Sewerage will be disposed in a way that does not pollute the environment.

The proponent will be liable for the discharging of the ablution facility weekly and dispose of at the nearest sewerage discarding ponds in the area. The proponent will include the suppliers of grease and other lubricants to collect and dispose of such waste in an environmentally responsive/friendly manner.



### Safety and Security

Access to the exploration site shall be facilitated by the staff/workers that will be temporarily employed during the duration of the exploration project. The high-risk operational/functioning sites will be delineated; and provisionally fenced off.

All personnel shall be provided with adequate and appropriate Personal Protective Equipment (PPE) to make sure that employee's occupational health and safety is not compromised. First aid kits shall be readily accessible on-site at all times to warrant that any likely slight injuries are attended to. There is a hospital in Opuwo.



## 7. THE RECEIVING ENVIRONMENT

### 7.1 Climate

### 7.1.1 Temperature

The average temperature normal in Opuwo Kunene region is recorded as 22.8 °C, according to national statistical data.



Figure 3: Average Annual Temperatures in the study area. Source: (worldweatheronline.com, 2023)



### 7.1.2 Rainfall

The climate of the local steppe in the study area has a significant impact. There is not much rainfall in the Kunene region all year long. According to Köppen and Geiger, this climate in the region is classified as BSh. Rainfall is about 464 mm for every year.

Kunene region is situated near the equator line and is categorized by difficult-todescribe summer seasons.



Figure 4: Average Annual Rainfall in the study area. Source: (worldweatheronline.com, 2023)



### 7.1.3 Humidity

The humidity during the least humid months of the year, i.e. September and November, is around 16-18% and the most humid month is January with 50-60% humidity. Namibia has a low humidity in general, and the lack of moisture in the air has a major impact on its climate by reducing cloud cover and rain and increases the rate of evaporation.



Figure 5: Annual Cloud and Humidity in and surrounding the study area. Source: (worldweatheronline.com, 2023)



7.1.4 Wind speed and Gust

In general, the wind in Opuwo area during March blows at an average speed of 10.2 mph (16.4 kmph). The windiest month is July with an average wind speed of 15.4 mph (24.8 kmph), whereas the quietest month is February with an average wind speed of 10.1 mph (16.3 kmph).



Figure 6: Average Wind speed and Gust in the study area. Source: (worldweatheronline.com, 2023)



### 7.2 Archaeological and Heritage Sites

There are no known heritage sites or sites of archaeological importance in the study and surrounding area.

### 7.3 Groundwater and Surface Water in the study area

The project area is located in an area that consists of fissured or kartisified aquifers and has rock bodies that has inadequate groundwater potential. Due to the inadequate groundwater potential, the some parts of the mining claim area may be prone to moderate groundwater pollution.

7.4 Surrounding Land Uses

Tourism and mining are some of the rising sectors due to its diversity of scenery, wildlife, and the detection of iron ore. Kunene region boasts the occurrence of the big four, namely, the Leopard, Elephant, Rhino, and the Lion, which can be found roaming freely in their natural environment. Agricultural, fishing, construction, administrative and support service activities significantly contribute to the region's Gross Domestic Product.



### 8. DESCRIPTION OF THE BIODIVERSITY

Biodiversity is defined as the relative richness of the diverse types of life forms in an area; is influenced by climatic aspects such as rainfall and temperature, soil and topography.

### 8.1 Flora

Flora in the study area is characterized by 75% of sparsely distributed Mopane trees in the wild areas. The area where the mining claims are locate is characterized by hilly woodland of Commiphora shrubland as well.



Figure 7: Geology, topography and vegetation in the study area.

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Opuwo landscape is divided into the interior highlands and the pro-Namib plains. It has six agro-ecological sectors namely: the Mountainous areas, Plateaus, Riverine, Lacustrine and Karst areas, Coastal desert and Etosha region. The vegetation of this area is mostly Mopane savanna (colophospermum mopane), mixed woodlands with several species of Acacia, Cammiphora and Terminalia. Furthermore, grass species such as Bushman grass and Stipagrostis spp that occur in the study and nearby areas.

The geology of the study area is characterized by rocks of the Otavi Group (Mendelson et al, 2002). The sediments lie beneath evident bulging rock components of quartizite, sand, Gravel, Scree and Calcrete. The project location and its surrounding is covered by the comparatively thin layer of sandy loamy and calcrete cover-up of the Kalahari Group.



Fig 8: Boscia Foetida spotted in the

study area.

### 8.2 Fauna

There are roughly about 4000 species of amphibians worldwide of which over 200 species are present in Southern Africa and 57 in Namibia (Griffin, 1998).

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Griffin (1998) articulates that more than 60% of the reptiles found in Namibia are protected by the conservation Ordinance. There are roughly 650 species of birds that have been recorded in Namibia, even though the country's avifauna is comparatively sparse compared to the high rainfall equatorial areas in Africa (Brown & Lawson, 1989). 650 bird species are recorded in Namibia, of which 160 species occur in the area, especially after good rains fall (Christian, 2005). Namibia is well endowed with mammal diversity with around 250 species know to be present within the country (Griffin, 1998). There are currently 14 mammal species which are considered to be endemic to Namibia, including 11 species of rodents and small carnivores which are not well known.

### 8.3 Socio-Economic Environment

The total population of the landscape is 53,402 (NSA, 2011) with efficiently the same statistics of males and females, and accounting for the projected 9,693 households with 6.3 persons per household on average. Population division in the age bracket of 15-59 accounts for 51% of the population which is mainly in the rural areas. The residents of the landscape area comprise of the Dhemba, Himba, Herero (majority inhabitants) Damara, and Ovambo people. The Himba, Dhemba and the San are categorized as vulnerable minorities and reside only in this landscape.

Opuwo had a population of 27,272 people (NSA, 2011). The town has the highest population in Kunene region and remains the region's commercial hub. Tourism and mining are the rising sectors because of its variety of scenery, wildlife, and the discovery of minerals.



### 8.4 Major Soils in the study and the surrounding areas

Soils in the area commonly categorized by low organic matter content and shortage of Phosphorus. Profundity differs from shallow to deep and mostly defined as sandy to loamy sand. Soils in the northern parts are marginal and comprise of a thin layer of soil with stones which are of no value. Most of the northern parts of Kunene are largely mountainous, lacking easy road access.

Below shows the major soils in found in the study area including the entire country.





## 9. PUBLIC CONSULTATION

As specified in the Environmental Impact Assessment (EIA) Regulations (paragraphs 7 and 21), public participation/involvement is a requirement and an essential element in the environmental assessment. Comments or suggestions made during the PPP should be noted.

Engaging with interested and affected parties (IAPs) in the proposed exploration activities ensured that all parties involved are well informed; and offer all stakeholders the opportunity to share their concerns, comments and/or suggestions.

- Public notices appeared in the Confidente newspaper on the 15<sup>th</sup> September 2023 and 22<sup>nd</sup> September 2023; and in Windhoek Observer newspaper 15<sup>th</sup> September 2023 and 22<sup>nd</sup> September 2023 respectively.
- Public environmental notices were also placed at the Regional council office notice board in Opuwo.
- BID document was compiled and only 1 person requested and registered as IAP.

NB: No comments/Issues/views/suggestions/recommendations/objections was received from the public.



#### Beliksbarrer

#### REAT 77 SPEMIER 2021 1 19 OBSERVERSPORTS

# Brighton stunned on European debut by AEK Athens

Templan's courty availed Earrycan how fell that as Grack hearyweights AXX In stansord Raborts & T a de Zertel v nen with a 3-2 Karopa Longse prosp stage victory. The Scogala twice progent AHK

back after Djibell Salibe and Mijat tic had taken advantage of Lewis Dask's absence through injury to score from first-half set pieces. But, over with 13 minutes' injurytime, Brighton had no assessor after sabelitate Ecoquiel Ponce converted a third after 54 minutes.

Nichas Elizanem was given too much time to errors after Tariq Lamptey had dipped as AFX lazanched a speedy counter-attack, Pance applying the feeids

tenne. It recard Jose Pedro's unique double ended up counting for nothing. Folderely, it is not unusual for the video assistant referre to intervene to award penalties. Remarkably, this time it has send twice, on both occasions after the lorner Wallord lorner/ had gone down - he was booked for diving the first time.

Brighton's DN million record signing took both penaltics, twicz sending the gualkooper the wrong way.

Brighton's long journey has before the teams came out, the station annumcer called on the Brighton law to "drink it in". It is burrely 25 years since the club were nearly relegated from the Foxtball League, in the final match over to be played at their belowed Goldstone Ground

When the clab has advanced to is ----

nia to the vision of owner 'lony т. House, who was watching from the stands, they have a superfraindure,



Differil Salibe (right) starsed Bright or the limit read in a No.

a state of the art training ground and one of the most attractive and

programies tonts in the Promier Longue. Now they have Europe, with the month-weitering wish of lorence Champions League witness. Ajus to come next month and Marseille to follow in December. Orid executive Prod Barber is lovel of saying Brighton are lasking forward, not back but, doptic the disappointment of defaut on the night, if our there was a night for unstaligin, were excident and had he been on

this was it. Images of the past were played across the stadium - more, it is it, as a thank yes to the faces who stand with the club in these dark days and are new getting the sight of the Brankian, a £34.5m mit same same opy and are new gring in a summer, gring in a summer, gring hok any same, gring hok any same gring hok a griefs an low w Dark mut have known, like everyone

the pitch rather than in the day-out, Brighton would have had a far hetter chance of avoiding them. signing het summer, getting booked for dragging back Lesi Garcia just inside the Brighton half as he found the Trinidad and Tobago international was further evidence of what Dank's alwine recard. On his full debut, on-keen Barcelona star Anso Fati - where last European

appearance was against Manchester United in this competition last year -drew an excellent first-half uses out of Gcan Stankowic. When the passe was still there When the party was not been for Brightam to win, Jose Palro charpoteined in new completing his hast-trick after beating the offside trap and ranning clear but firing his shot straight at Stanlawic. Pascal Gross had Brighten's best opportunity to level for a third time

but again, the ASX keeper was equal to the challenge.







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Environmental Assessment for propo Semi-precious stones on Mining Cla	used exploration activities of Base and rare metals, Industrial m ms 73612-73621 in Kunene Region Indux x	inerals, Precious metals, and X
lipinge Ndelimona «ndelimonachax@gmail.com»		Wed, Sep 27, 12:48 PM 🕁 🤄
Dear Epic Consultancy		
I also hereby request to be registered as an I&AP for the EIA: -Environmental Assessment for proposed exploration activitie Confidente newspaper on the 21st of September 2023. Kindly forward me the Background Information Documents (B	of Base and rare metals, Industrial minerals, Precious metals, and Semi-precious stones on Mining Claims D).	s 73612-73821 in Kunene Region, as issued in your public notice in
Regards		
 Ndelimona lipinge		
EIA Tracking and Monitoring in Namibia		
Namibian Environment and Wildlife Society		
0814138822		



### **10. REHABILITATION AND DECOMMISSIONING**

It shall be the responsibility of the proponent to carry-out the decommissioning implementation which will be as per the Proponent's Decommissioning & Rehabilitation Plan.

A full decommissioning implementation shall be carried out by the proponent, which shall among others include the following:

- Demolishing and removal of all temporary and permanent structures;
- Disturbed areas to be prepared accordingly;
- Provide for a safe and steady landform well-matched with the envisioned final use;
- Retrieval of topsoil; any building rubble should be disposed of at local dumpsite/landfill and rehabilitation monitoring should be done.

As for the rehabilitation, the further down shall be followed:

- Proponent shall ensure to keep the disturbed areas to a minimum;
- Plants shall not be removed only where required;
- Careful exploration should be executed to safeguard that the whole site is not cleared and affected; the topsoil should be filled back as soon as possible where the soil was removed.



### 11. RECOMMENDATIONS AND CONCLUSION

Most of the potential impacts were found to be of medium- rating significance. With the effective implementation of the recommended management and mitigation measures, will particularly see a reduction in the significance of adverse impacts that cannot be avoided completely (from medium rating to low). To maintain the desirable rating, the implementation of management and mitigation measures should be monitored by the Proponent directly, or their Environmental Control Officer (ECO) is highly recommended. The monitoring of this implementation will not only be done to maintain the reduced impacts' rating or maintain a low rating but to also ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed right away too.

It is essential that the proponent together with their contractors as well as the personnel to efficiently execute the commended management and mitigation measures in order to protect the social and biophysical environment for the duration of the proposed project.

The positive importance in the social impact has been attributed to potential of direct and indirect jobs associated with the project and the possibility of the project contributing to the national economy through loyalties, taxes and foreign currency earnings.

The negative impacts were carefully well-defined, assessed, and mitigation measures are provided thereof to lessen or eliminate their consequence on the environment. The effective implementation of suggested managing actions (mitigation measures) will lessen negative impacts which cannot be completely eradicated from medium to low rating. Maintaining low significance rating will require monitoring of the likely negative impacts by the Proponent's Environmental Control Officer at all times.



Thus, Epic Environmental Consultancy commends that the planned mineral exploration project obtain an Environmental Clearance Certificate (ECC) provided that:

- The EMP is adhered or complied with at all times and ensure that all required permits, licenses and approvals for the proposed activities are acquired or renewed as required;
- That the Proponent and all project workers or contractors to fulfil the legal requirements leading the proposed project and its associated activities;
- Site areas where exploration activities have stopped to be rehabilitated to the pre-exploration state; and
- That Environmental Compliance monitoring reports are compiled and submitted to MEFT as per the Ministry's requirements.



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