Excel Dynamic Solutions (Pty) Ltd

ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROSPECTING AND EXPLORATION ACTIVITIES ON EXCLUSIVE PROSPECTING LICENSE (EPL) No. 10582 LOCATED NORTH OF OKANGWATI, IN KUNENE REGION, NAMIBIA.

ENVIRONMENTAL ASSESSMENT REPORT: FINAL

ECC Application Reference: APP- 007032

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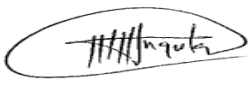

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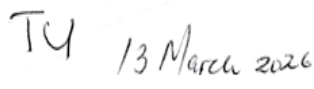

Proponent Signature and Date

March 2026

EXECUTIVE SUMMARY

Uatembua Tjiramba (The Proponent) has applied to the Ministry of Industries, Mines and Energy (MIME), to be granted the Exclusive Prospecting License (EPL) No. 10582 on 08 October 2024. Excel Dynamic Solutions (Pty) Ltd ("the Consultant") was appointed to act on behalf of the proponent to conduct an Environmental Scoping Assessment and submit the application to the Ministry of Environment, Forestry and Tourism (MEFT) for consideration and the potential issuance of an Environmental Clearance Certificate (ECC). The EPL covers a total surface area of 19,991.6913 hectares (ha), located about 50 km north of Okangwati, Kunene region as shown in **(Figure 1).** The EPL overlies the Epupa conservancy and a small portion of the Okanguati conservancy. The target commodities for the prospecting and exploration activities are **Base & Rare Metals, Dimension stone, Industrial Minerals, Nuclear Fuel Minerals, Precious Metals and Semi-Precious stone.**

Prospecting and exploration-related activities are among the listed activities that may not be undertaken without an ECC under the Environmental Impact Assessment (EIA) Regulations. To ensure that the proposed activities comply with the national environmental legislation, the project Proponent appointed an independent environmental consultant, Excel Dynamic Solutions (Pty) Ltd, to undertake the required Environmental Assessment (EA) process and apply for the ECC on their behalf.

The application for the ECC was compiled and submitted to the competent authority, the Ministry of Environment, Forestry and Tourism (MEFT) as the environmental custodian for project registration purposes. Upon submission of an Environmental Scoping Assessment (ESA) Report and Draft Environmental Management Plan (EMP), an ECC for the proposed project may be granted by the Environmental Commissioner at the MEFT's Department of Environmental Affairs, Forestry (DEAF).

This Environmental Scoping Assessment (ESA) has been prepared for the proposed prospecting and exploration activities on EPL No. 10582, located north of Okanguati, in the Kunene Region of Namibia. The EPL overlies the Epupa communal conservancy and a small portion of the Okanguati communal conservancy. These conservancy areas are characterised by an arid to semi-arid climate with low and highly variable annual rainfall, and frequent droughts that significantly affect livelihoods. The landscape is rugged, comprising rocky hills, escarpments, and drainage systems flowing towards the Kunene River. Vegetation is predominantly mopane with limited water resources and constrained grazing capacity. The areas are mainly inhabited by Himba, Ovahimba, and Ovazemba communities, and communal land use is largely centred on livestock farming, subsistence crop production and increasing diversification into mining activities.

The purpose of the ESA is to evaluate the potential environmental and social impacts of the planned exploration activities, identify mitigation measures, and provide recommendations to support decision-making by the Ministry of Environment, Forestry and Tourism (MEFT) with respect to the granting of an Environmental Clearance Certificate (ECC).

The proposed activities will be conducted in three phases: 1. non-invasive exploration (geological mapping, geochemical sampling, and geophysical surveys), 2. invasive exploration (drilling and bulk sampling), and 3. decommissioning of exploration sites. These activities are expected to generate both positive and negative impacts.

Possible **negative impacts** identified include limited temporary disturbance of grazing areas Biodiversity impacts, Stakeholder conflicts, Water and soil contamination, Air quality impacts, Occupational health and safety impacts, Traffic and road safety, Noise and vibration, Waste management, Cultural and heritage impact, Social and land-use conflicts. Cumulative impacts are likely due to overlap with livestock farming, Tourism and conservation activities.

The assessment also recognizes significant **positive impacts**, including the Socio-economic development, Investment and infrastructure benefits, Local and regional economic growth, Land use and rental payments, Water resource benefits and potential long-term investment in the Kunene region if exploration proves successful.

The ESA recommends strict compliance with Namibia's environmental and mining legislation, including the Environmental Management Act (2007), EIA Regulations (2012), Minerals (Prospecting and Mining) Act (1992), Water Resources Management Act (2013), and the Nature Conservation Ordinance (1975). It further recommends adherence to the accompanying Environmental Management Plan (EMP), which provides detailed mitigation and monitoring measures for identified impacts.

Stakeholder consultations were undertaken through public notices, information sharing, and meetings held with communities. No major issues were raised during the consultation process, as the community expressed full support for the project, noting that the proponent is a member of their community. The only concerns highlighted were that mining activities should not disturb ancestral graves and that impacts on grazing areas should be minimised and appropriately mitigated. This concern will be addressed through proposed mitigation measures requiring the proponent to maintain continuous and ongoing engagement with stakeholders throughout the exploration phase.

Brief Project Description

Planned Activities: Proposed Exploration Methods

The Proponent intends to adopt a systematic exploration approach to the project as follows:

1. **Non-invasive Techniques:**

    - **Desktop Study: Geological mapping**: Mainly entails a desktop review of existing geological maps followed by ground observations. This includes the review of geological maps of the area and on-site ground traverses and observations and an update where relevant, of the information obtained during previous geological studies of the area and aero-geophysical surveys.
    - **Lithological and geochemical surveys**: Stream sediment, soil and rock samples may be collected and taken for chemical analysis to be conducted by analytical chemistry laboratories to determine presence and tenor of target commodities. Also, trenches or pits may be dug (manually or by excavator) depending on the commodity to further investigate the mineral potential. Affected areas need to be made safe (by fencing off opencasts and warning signs). Stream samples may be collected in first-order drainages by collecting up to 1kg of the sediment within the active drainage channel. Soil sampling entails the digging of small pits where up to 5kg may be extracted and sieved to collect up to 500g of material. To mitigate

risk, soil excavations will be closed immediately after obtaining the required sample. Larger excavations and trenches will be secured until they are closed. At all times, the landowners and other relevant stakeholders will be engaged to obtain prior authorization where necessary.

- **Geophysical surveys:** This will entail data collection by specialist contractors to investigate the substrata by airborne or ground methods, through sensors such as radar, radiometric, magnetic, and electromagnetic surveys to detect any anomalies in the area related to mineralization. Ground geophysical surveys may be conducted by hand-held survey equipment, or where necessary using vehicle-mounted sensors, while in the case of air surveys, the sensors will be mounted to an aircraft, which may fly at low altitude over the target area.

2. **Invasive Techniques:**

Exploration Drilling: Should first phase exploration yield positive results, drilling may be considered to investigate the nature and tenor of possible mineralization in prospective areas at depth.

Drill core or drill chip samples may be collected, logged and submitted for further analysis, to determine the depth, geometry and width of potential mineralization.

- To access the areas for drilling purposes, new access tracks will most likely be made and drill pads will be cleared and levelled to set up drill rigs. Two commonly used drilling techniques are Reverse Circulation (RC) drilling and Core/Diamond drilling (DD). RC drilling uses a pneumatic hammer, which drives a rotating tungsten-steel bit. This technique produces an uncontaminated large-volume sample, which is comprised of rock chips. RC drilling is a faster and more affordable way of drilling compared to DD, although the latter delivers more geological information. A typical drilling site will consist of a drill-rig, and support vehicles as well as sufficient space to place drilling equipment and drilled samples and/or core-boxes. In addition, an area or shed may be established to store RC sample bags and/or core-boxes, to further handle samples for additional investigation and analysis (including a fuel and lubricants storage facility).

3. **Decommissioning**

Immediate remediation of drill sites is the standard procedure, like for soil sampling sites. Trenches and pits are generally made safe by fencing and warning noticeboards, to allow repeated investigations. However, these should also be remediated before an EPL is returned to the MIME or allowed to expire.

An important part of Decommissioning is informing of local stakeholders that exploration activities have been concluded. This is not only a measure of good public relations but also serves to uphold *bona fide* exploration companies' reputation in general. It is also handy to defend possible allegations of future trespassing by other parties that are not adhering to agreed protocol.

Public Consultation

Public Consultation Activities

Regulation 21 of the EIA Regulations details steps to be taken during a public consultation process and these have been used in guiding this process. The public consultation process assisted the Environmental Consultant in identifying all potential impacts and aided in the process of identifying possible mitigation measures and alternatives to certain project activities. The communication with I&APs about the proposed prospecting and exploration activities was done through the following means in this order to ensure that the public is notified and allowed to comment on the proposed project:

- A Background Information Document (BID) containing information about the proposed exploration activities was compiled and emailed upon request to all registered Interested and Affected Parties (I&APs).
- Project Environmental Assessment notices were published in the New Era Newspaper **(19 December 2025 and 06 January 2026),** and The Namibian Newspaper **(19 December 2025 and 06 January 2026),** briefly explaining the activity and its locality, inviting members of the public to register as I&APs and submit their comments/concerns.
- A public meeting was scheduled at Omuzorororua village between Onyungurura & Camp Cornie. The meeting was then held on the 16 February 2026 at scheduled venue at 11h00. The issues and concerns raised were noted and used to form the basis for the ESA Report and EMP.

Potential Impacts identified

The following potential impacts are anticipated:

- **Positive impacts**: In general, exploration activities are too low-key to impact significantly, but they may create work opportunities and provide cash income, which is generally lacking in remote, underdeveloped rural areas.
- Should a mine be discovered and developed, the following additional impacts can be expected: Socio-economic development: Creation primarily temporary, employment opportunities and trained local workforce; Investment and infrastructure benefits: Potential investment opportunities and infrastructure-related development associated with exploration activities; Local and regional economic growth: Contribution to both local, broader regional economic development; Land use and rental payments: Payment of land use fees and, where applicable, rental fees for the establishment of structures such as campsites; Water resource benefits: Where feasible, exploration boreholes with viable water strikes may be handed over to the community upon completion of exploration activities.
- **Negative impacts**: Land and soil disturbance: Physical disturbance from exploration activities and access road development, with increased prone to erosion; Potential Biodiversity impacts: Habitat disturbance, vegetation clearance within area of interest, and potential loss of microhabitats for small fauna; risk of poaching; Stakeholder conflicts: Potential disputes with small-scale miners operating within or adjacent to the EPL if issues are not proactively managed; Water and soil contamination: Risk of pollution affecting water resources and soil quality; Air quality impacts: Dust generation from exploration activities and vehicle movements; Occupational health and safety impacts: Potential hazards to workers and contractors; Traffic and road safety: Increased pressure on local roads and associated safety risks; Noise and vibration: Disturbance from drilling, machinery, and vehicle operations, potentially affecting nearby communities; Waste management: Environmental impacts arising from inadequate waste management practices; Cultural and heritage impact: Potential impacts on archaeological and cultural heritage resources; Social and land-use conflicts: impact of community disturbance and competing land-use pressures.

  The potential negative impacts were assessed, and mitigation measures were provided accordingly.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The potential impacts that are anticipated from the proposed project activities were identified, described, and assessed. For the significant adverse (negative) impacts with a medium rating, appropriate management, and mitigation measures were recommended for implementation by the Proponent, their contractors, and project-related employees.

The public was consulted as required by the EMA and its 2012 EIA Regulations (Sections 21 to 24). This was done via the two newspapers (New Era and The Namibian) used for this environmental assessment (copies attached). A consultation through a face-to-face meeting with directly affected landowners whereby they raised concern and comments on the proposed project activities (copies of scoping meetings' minutes attached).

The issues and concerns raised by the registered I&APs formed the basis for this Report and the Draft EMP. The issues were addressed and incorporated into this Report whereby mitigation measures have been provided to avoid and/or minimize their significance on the environmental and social components. Most of the potential impacts were rated to be of medium to low significance. With the effective implementation of the recommended management and mitigation measures, we expect a reduction in the significance of adverse impacts that cannot be avoided completely (rated medium to low). To maintain the desirable rating, the implementation of management and mitigation measures should be monitored by the Proponent directly, and employment of an Environmental Control Officer (ECO) is highly recommended. The monitoring of this implementation will not only be done to maintain the reduced impact rating and 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 crucial for the Proponent and their contractors as well as to effectively implement the recommended management and mitigation measures to protect both the biophysical and social environment throughout the project duration. All these would be done to promote environmental sustainability while ensuring a smooth and harmonious existence and purpose of the project activities in the community and environment.

Recommendations

The Environmental Consultant is confident that the potential negative impacts associated with the proposed project activities can be managed and mitigated by the effective implementation of the

recommended management and mitigation measures and with more effort and commitment put into monitoring the implementation of these measures.

It is, therefore, recommended that the proposed prospecting and exploration activities be granted an ECC, provided that:

- All the management and mitigation measures provided herein are effectively and progressively implemented.
- All required permits, licenses, and approvals for the proposed activities are obtained as required. These include permits and licenses for land use access agreements to explore and ensure compliance with these specific legal requirements.
- The Proponent and all their project workers or contractors comply with the legal requirements governing their project and its associated activities and ensure that project permits and or approvals required to undertake specific site activities are obtained and renewed as stipulated by the issuing authorities.
- Site areas where exploration activities have ceased are rehabilitated, as far as practicable, to their pre-exploration state.
- Environmental Compliance monitoring reports should be compiled and submitted to the DEAF Portal as per the provision made on the MEFT/DEAF's portal.

Disclaimer

Excel Dynamic Solutions (EDS) warrants that the findings and conclusion contained herein were accomplished following the methodologies outlined in the Scope of Work and Environmental Management Act (EMA) of 2007. These methodologies are described as representing good customary practice for conducting an EIA of a property to identify recognized environmental conditions. There is a possibility that even with the proper application of these methodologies certain conditions may prevail, related to property or subjects, that could not be identified within the scope of the assessment, or which were not reasonably identifiable from the available information. The Consultant believes that the information obtained from the record review and during the public consultation processes concerning the proposed exploration work is reliable. However, the Consultant cannot and does not warrant or guarantee that the information provided by the other sources is accurate or complete. The conclusions and findings outlined in this report are strictly limited in time and scope to the date of the evaluations. No other warranties are implied or expressed.

Some of the information provided in this report is based on personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those people contacted.

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LIST OF ABBREVIATIONS

Abbreviation	**Meaning**
AMSL	Above Mean Sea Level

BID	Background Information Document
CV	Curriculum Vitae
DEAF	Department of Environmental Affairs and Forestry
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EDS	Excel Dynamic Solutions
ESA	Environmental Scoping Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EPL	Exclusive Prospecting Licence
GG	Government Gazette
GN	Government Notice
I&APs	Interested and Affected Parties
MET	Ministry of Environment, and Tourism
MIME	Ministry of Industry, Mines and Energy
PPE	Personal Protective Equipment
Reg	Regulation
S	Section
ToR	Terms of Reference

DEFINITION OF TERMS

Alternative	A possible course of action, in place of another would meet the same purpose and need of the proposal.
Baseline	Work done to collect and interpret information on the condition/trends of the existing environment.
Biophysical	That part of the environment does not originate with human activities (e.g. biological, physical, and chemical processes).

Cumulative Impacts/Effects Assessment	About an activity, means the impact of an activity that in it may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.
Decision-maker	The person(s) entrusted with the responsibility for allocating resources or granting approval to a proposal.
Ecological Processes	Processes play an essential part in maintaining ecosystem integrity. Four fundamental ecological processes are the cycling of water, the cycling of nutrients, the flow of energy, and biological diversity (as an expression of evolution).
Environment	As defined in the Environmental Management Act - the complex of natural and anthropogenic factors and elements that are mutually interrelated and affect the ecological equilibrium and the quality of life, including – (a) the natural environment that is land, water, and air; all organic and inorganic matter and living organisms and (b) the human environment that is the landscape and natural, cultural, historical, aesthetic, economic and social heritage and values.
Environmental Management Plan	As defined in the EIA Regulations (Section 8(j)), a plan that describes how activities that may have significant environmental effects can be mitigated, controlled, and monitored.
Exclusive Prospecting Licence	It is a license that confers exclusive mineral prospecting rights over the land of up to 1000 km2 in size for an initial period of three years, renewable twice for a maximum of two years at a time
Interested and Affected Party (I&AP)	Concerning the assessment of a listed activity includes - (a) any person, group of persons, or organization interested in or affected by the activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity. Mitigate - practical measures to reduce adverse impacts. Proponent – as defined in the Environmental Management Act, a person who proposes to undertake a listed activity. Significant impact - means an impact that by its magnitude, duration, intensity, or probability of occurrence may have a notable effect on one or more aspects of the environment.
Fauna	All animals that are found in each area.
Flora	All plants that are found in each area.

Mitigation	The purposeful implementation of decisions or activities that are designed to reduce the undesirable impacts of a proposed action on the affected environment.
Monitoring	Activity involving repeated observation, according to a pre-determined schedule, of one or more elements of the environment to detect their characteristics (status and trends).
Nomadic Pastoralism	Nomadic pastoralists live in societies in which the husbandry of grazing animals is viewed as an ideal way of making a living and the regular movement of all or part of society is considered a normal and natural part of life. Pastoral nomadism is commonly found where climatic conditions produce seasonal pastures but cannot support sustained agriculture.
Proponent	Organization (private or public sector) or individual intending to implement a development proposal.
Public Consultation/Involvement	A range of techniques can be used to inform, consult or interact with stakeholders affected by the proposed activities.
Protected Area	Refers to a protected area that is proclaimed in the Government Gazette according to the Nature Conservation Ordinance number 4 of 1975, as amended
Scoping	An early and open activity to identify the impacts that are most likely to be significant and require specialized investigation during the EIA work. It can also be used to identify alternative project designs/sites to be assessed, obtain local knowledge of the site and surroundings, and prepare a plan for public involvement. The results of scoping are frequently used to prepare the Terms of Reference for the specialized input into a full EIA.
Terms of Reference (Tor)	Written requirements governing full EIA input and implementation, consultations to be held, data to be produced, and form/contents of the EIA report. Often produced as an output from scoping.

LIST OF APPENDICES (To be submitted to MEFT and MME)

Appendix A: Copy of the Environmental Clearance Certificate (ECC) Application Form 1

Appendix B: Draft Environmental Management Plan (EMP)

Appendix C: Curriculum Vitae (CV) for the Environmental Assessment Practitioner (EAP)

Appendix D: Proof of Public Consultation (Newspaper Adverts, Attendance register, and Meeting Minutes)

Appendix E: Intention to grant

1 INTRODUCTION

1.1 Project Background

Uatembua Tjiramba (The Proponent) has applied to the Ministry of Industries, Mines and Energy (MIME), to be granted the Exclusive Prospecting License (EPL) No. 10582 on 08 October 2024. Excel Dynamic Solutions (Pty) Ltd ("the Consultant") was appointed to act on behalf of the proponent to conduct an Environmental Scoping Assessment and submit the application to the Ministry of Environment, Forestry and Tourism (MEFT) for consideration and the potential issuance of an Environmental Clearance Certificate (ECC). The EPL covers a total surface area of 19,991.6913 hectares (ha), located about 50 km north of Okangwati, Kunene region as shown in **(Figure 1).** The EPL overlies the Epupa conservancy and a small portion of the Okanguati conservancy. The target commodities for the prospecting and exploration activities are **Base & Rare Metals, Dimension stone, Industrial Minerals, Nuclear Fuel Minerals, Precious Metals and Semi-Precious stone.**

Section 27 (1) of the Environmental Management Act (EMA) (No. 7 of 2007) and its 2012 Environmental Impact Assessment (EIA) Regulations provide a list of activities that may not be carried out without an EIA undertaken and an ECC obtained. Exploration activities are listed among activities that may not occur without an ECC. Therefore, individuals or organizations may not carry out exploration activities without an ECC awarded to the Proponent.

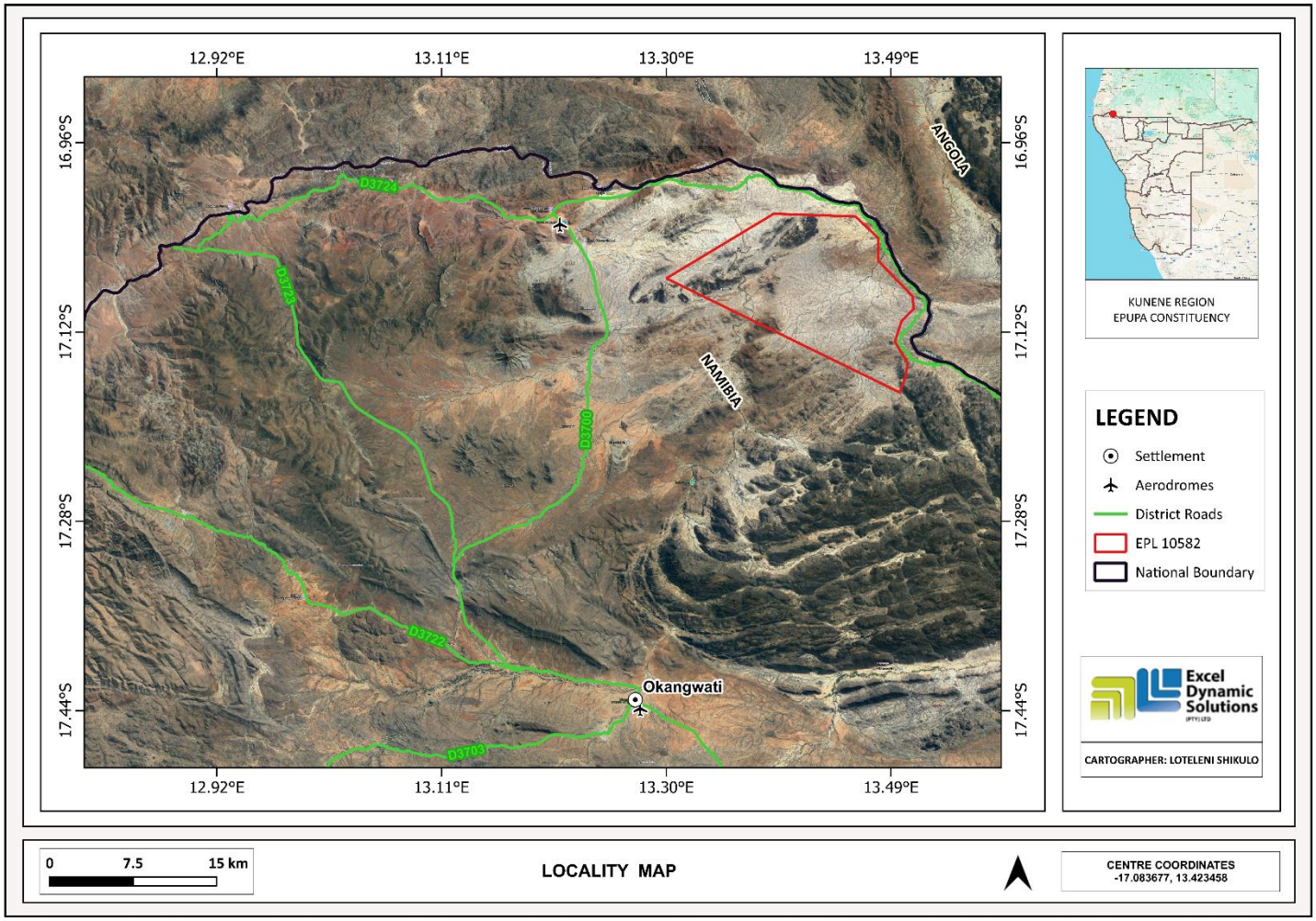

Figure 1: Locality map for EPL 10582.

1.2 Terms of Reference, Scope of Works, and Appointed EA Practitioner

To satisfy the requirements of the EMA and its 2012 EIA Regulations, The Proponent appointed EDS to conduct the required Environmental Assessment (EA) process on their (Proponent's) behalf, and thereafter, apply for an ECC for exploration works on the EPL. There were no formal Terms of Reference provided to EDS by the Proponent. The consultant, instead, relied on the requirements of the Environmental Management Act (No. 7 of 2007) (EMA) and its EIA Regulations (GN. No. 30 of 2012) to conduct the study.

The application for the ECC (**Appendix A**) is compiled and submitted to the Ministry of Environment, Forestry and Tourism (MEFT), the environmental custodian for project registration purposes. Upon submission of an Environmental Scoping Assessment (ESA) Report and Draft Environmental Management Plan (EMP) (**Appendix B**), an ECC for the proposed project may be awarded by the Environmental Commissioner at the MEFT Department of Environmental Affairs (DEAF).

The EIA project is headed by Mr. Nerson Tjelos, a qualified and experienced Geoscientist and experienced EAP. The consultation process and reporting are done by Mr. Wilbard Angula. The EAP's CV is presented in **Appendix C.**

1.3 Motivation for the Proposed Project

The mining industry is one of the largest contributors to the Namibian economy. It contributes to the improvement of local livelihoods. In Namibia, the exploration of minerals is done mainly by the private sector. Exploration has the potential to enhance and contribute to the development of other sectors, create temporary and permanent employment in areas of exploration, and generates taxes that fund social infrastructural development. The mining sector yields considerable revenue and accounts for a significant portion of the gross domestic product (GDP). Additionally, the industry produces a trained workforce and uplifts local small businesses in communities and may initiate related businesses, such as the manufacturing of exploration and mining equipment, the provision of engineering and environmental services, the upgrade of basic services and infrastructure including roads, rails, and water supply. Moreover, the mining sector forms a vital part of some of Namibia's development plans. Mining is essential to the development goals of Namibia in contributing to meeting the ever-increasing global demand for minerals, and for national prosperity. It is thus that successful exploration of EPL 10582 could lead to the

discovery of a mine, which would contribute towards achieving the goals of the national development plans.

2 PROJECT DESCRIPTION: PROPOSED EXPLORATION ACTIVITY

Mineral exploration is essential to discover and develop any potential mining project. Exploration generates the necessary data required for further decisions and investment options. The proposed exploration activities are expected to take about three years. The exploration process comprises three phases – non-invasive exploration, invasive exploration, and decommissioning of works.

2.1 Phase 1 (Non- Invasive Exploration)

2.1.1 Desktop Study

This mainly entails a desktop review of geological maps of the area, on-site ground traverses and observations, and an update, where relevant, of the information obtained during previous geological studies of the area.

2.1.2 Geophysical surveys

Geophysical surveys collect data of the substrata by air or on the ground using radar, magnetic, and/or electromagnetic equipment, to detect and ascertain any mineralization in the area. Ground geophysical surveys may be conducted, where necessary, using vehicle-mounted or handheld equipment, while in the case of air surveys, the sensors are mounted to an aircraft, which navigates over the target area.

2.1.3 Lithology geochemical surveys

Stream, soil and rock samples may be collected and submitted for analysis to analytical chemistry laboratories to determine presence and quantities of searched-for minerals. Additionally, trenches or pits may be dug manually or with an excavator to further investigate the subsurface.

Stream sampling consists of the collection and sieving of small (up to 5kg) samples of sediment from the channel of all first-order streams draining the area of interest. This rapidly screens the area to identify locations which may require further exploration.

Soil sampling consists of the collection of small (up to 500g) samples from shallow (20cm deep) pits, sieved from about up to 5kg of original material. To ensure adequate risk mitigation, all excavations will be closed immediately after obtaining the required sample. Major excavations such as trenches or pits will be secured until they are closed. The landowner and other relevant stakeholders will be engaged to obtain prior authorization where necessary.

2.2 Phase 2 (Invasive Exploration)

The selection of the potential mineralization model and exploration targets will be based on the local geology, and the trenching, drilling, and assay results of the samples collected. The planned exploration activities are aimed at delineating the mineral deposits and determining whether the deposits are economically feasible. No explosives will be used during this exploration phase.

2.2.1 Detailed Exploration (Drilling)

Should laboratory analyses from Phase 1 return positive results, drilling may be undertaken to collect drill samples for further analysis. This determines the depth, geometry and width of the potential mineralization. If necessary, new access tracks to the drill sites are created and drill pads at which to set up the rig are cleared. Two commonly used drilling methods are Reverse Circulation (RC) drilling and Core/Diamond drilling (DD). RC drilling uses a pneumatic hammer, which drives a rotating tungsten-steel bit. It produces an uncontaminated large-volume sample, which comprises rock chips. It is relatively fast and more affordable technique compared to DD. However, DD may also be considered for this exploration program, if required.

A typical drilling site provides space for the drill rig and drilling equipment, support vehicles, as well as space for storage of drill samples. A sample storage facility or core yard may also be required for logging, sorting, packing and storage of RC as well as core samples.

Other aspects of the proposed exploration operations include:

2.2.2 Access Tracks and Roads

The EPL is accessible via the D3724 route from Epupa, Kunene Region. The Proponent may however need to create access roads to target areas within the EPL to ensure that it is fit to accommodate project-related vehicles, such as heavy trucks.

2.2.3 Material and Equipment

The requirements of the exploration program in terms of vehicles and equipment include (4X4) vehicles, a truck, water tanks, drill rigs and drilling machines, and a power generator. Equipment

and vehicles will be stored at a designated area near the accommodation site or a storage site established within the EPL area.

2.2.4 Services and Infrastructure

- **Water:** Water for the exploration operations on the EPL will be obtained either from the nearest existing boreholes, or the proponent will drill boreholes within the EPL, upon obtaining necessary permits and signed agreements with the landowners in the area. The estimated monthly water consumption is 4000 liters. This includes water for drinking, sanitation, cooking, as well as cleaning of equipment.
- **Power supply:** Power required during the operation phase will be provided by diesel generators. About 200 liters of diesel will be used per month.
- **Fuel (diesel for generators and other equipment):** The fuel (diesel) required for exploration equipment will be stored in a tank mounted on a mobile trailer. Drip trays will be readily available on this trailer and accidental fuel spills are cleaned as soon as they are observed. Fuel may also be stored in a bunded diesel bowser on site, and in jerry cans placed on plastic sheeting to avoid unnecessary contamination of soils.

2.2.5 Waste Management

The site will be equipped with secured waste bins for each type of waste (i.e., domestic, hazardous, and recyclable). Depending on the amount generated, waste will be sorted and collected as regularly as possible and taken to the nearest certified landfill site. An agreement will need to be reached with different waste management facility operators/owners and authorization, or permits will be obtained before utilizing these facilities, in the case of production of any hazardous waste.

- **Sanitation and human waste**: Portable ablution facilities will be used, and the sewage will be disposed of according to the approved disposal or treatment methods of the facility manufacturer.
- **Hazardous waste**: Drip trays and spill control kits will be available on-site to ensure that oil/fuel spills and leaks from vehicles and equipment are captured on time and contained correctly before polluting the site.

The waste produced on-site can also be categorized as mineral or non-mineral waste:

- **Mineral Waste:** Mineral waste such as soil and sediment samples, drill chips and cuttings will potentially be produced throughout the project exploration phase. This waste will be stripped and dumped in allocated areas as stipulated in the EMP.
- **Non-mineral Waste:** Consists primarily of auxiliary materials that will support the exploration phase. This includes but is not limited to items such as empty containers, plastic, etc., and other domestic waste. This waste will be collected, sorted, and taken to the nearest municipal dumpsite as regularly as necessary.

2.2.6 Safety and Security

- **Storage Site**: Temporary storage areas for exploration material, equipment, and machinery will be required at the campsite and/or exploration sites. Security will be supplied on a 24-hour basis at the delegated sites for storage. A temporary support fence surrounding the storage site will be constructed to ensure people and domestic animals are not at risk.
- **Fire management:** Basic firefighting equipment, i.e., fire extinguishers will be readily available in vehicles at the work sites and camps. The exploration crew is required to have contact details of the nearest fire station in case of a larger scale fire at the site. The exploration team will have trained personnel with basic fire-fighting skills.
- **Health and Safety**: Adequate and appropriate Personal Protective Equipment (PPE) will be provided to all project personnel while on and working at the site. A first aid kit will be readily available on-site and in vehicles to avoid potential minor injuries.

2.2.7 Accommodation

The exploration crew will be accommodated either in Epupa or in a campsite near the exploration sites. If the accommodation camp is near the site, prior permission will be obtained from the landowners. Exploration activities will take place during daytime only and staff will commute to the exploration site(s) from their place of accommodation if they are not accommodated on site.

2.3 Decommissioning and Rehabilitation Phase

Once the exploration activities on the EPL come to an end, the Proponent will take measures to rehabilitate all disturbed sites. Decommissioning and rehabilitation are primarily reinforced through a decommissioning and rehabilitation plan, which consists of safety, health, environmental, and contingency aspects. Economically unfavourable developments or exploration results might force the Proponent to cease the exploration program before the

predicted closure. It is best practice for the Proponent to ensure the project activities cease in an environmentally friendly manner, and the site is rehabilitated.

3 PROJECT ALTERNATIVES

Alternatives are defined as the “different means of meeting the general purpose and requirements of the activity” (EMA, 2007). This section highlights the different ways in which the project can be undertaken, and identifies alternatives that may be the most practical, but least damaging to the environment.

Once the alternatives have been established, these are examined by asking the following three questions:

- What alternatives are technically and economically feasible?
- What are the environmental effects associated with the feasible alternatives?
- What is the rationale for selecting the preferred alternative?

The alternatives considered for the proposed development are discussed in the following subsections.

3.1 Types of Alternatives Considered

3.1.1 The "No-action" Alternative

The “no action” alternative implies that the status quo remains, and nothing happens. Should the proposal for exploration activities on the EPL be discontinued, none of the potential impacts (positive and negative) identified would occur. If the proposed project is discontinued, the current land use for the proposed site will remain unchanged.

The “no-action” alternative implies that no prospecting or exploration activities would be undertaken on EPL 10582 on the ground. This would avoid all potential environmental and social impacts associated with exploration, including land disturbance, biodiversity loss, and pressure on scarce water resources.

However, the socio-economic benefits such as employment creation, local procurement, skills transfer, and potential long-term mining investment would also be foregone. Given Namibia’s national development goals (Vision 2030, NDP6, Harambee Prosperity Plan), the “no-action”

option is less favourable from a developmental perspective, but it remains the environmentally safest alternative.

Should the" no-action" option be decided, the key losses may include:

- Loss of foreign direct investment.
- No temporary job opportunities for community members.
- Loss of potential income to the local and national government through land lease fees, license lease fees, and various tax structures.
- Improved geological understanding of the site area regarding the targeted commodities.

Alternatively, where parts of the project site are considered environmentally too sensitive, these areas should be excluded from exploration.

3.1.2 Exploration Area

The choice of this exploration area is related to its geological setting (regional and local), the economic geology, and the exploration and mining history of the EPL area. Finding an area for the planned exploration activities is possible but would require another EPL application. In general, the search for certain target commodities is area-specific, and exploration targets are primarily determined by the geology (host rocks) and the tectonic environment of the site (which may have aided ore-forming mechanisms). The tenement is big enough to host related facilities, should an economic mineral deposit be found and defined.

The potential locations of mineral resources nationwide are mapped and categorized by the Ministry of Industries, Mines and Energy as exclusive prospecting licenses, mining licenses and claims, mineral deposit retention licenses, reconnaissance licenses, and exclusive reconnaissance licenses on the Namibia Mining Cadastral Map https://portal.mme.gov.na/page/Map. Public Cadastral information on EPL 10582 is shown in (**Figure 2)**.

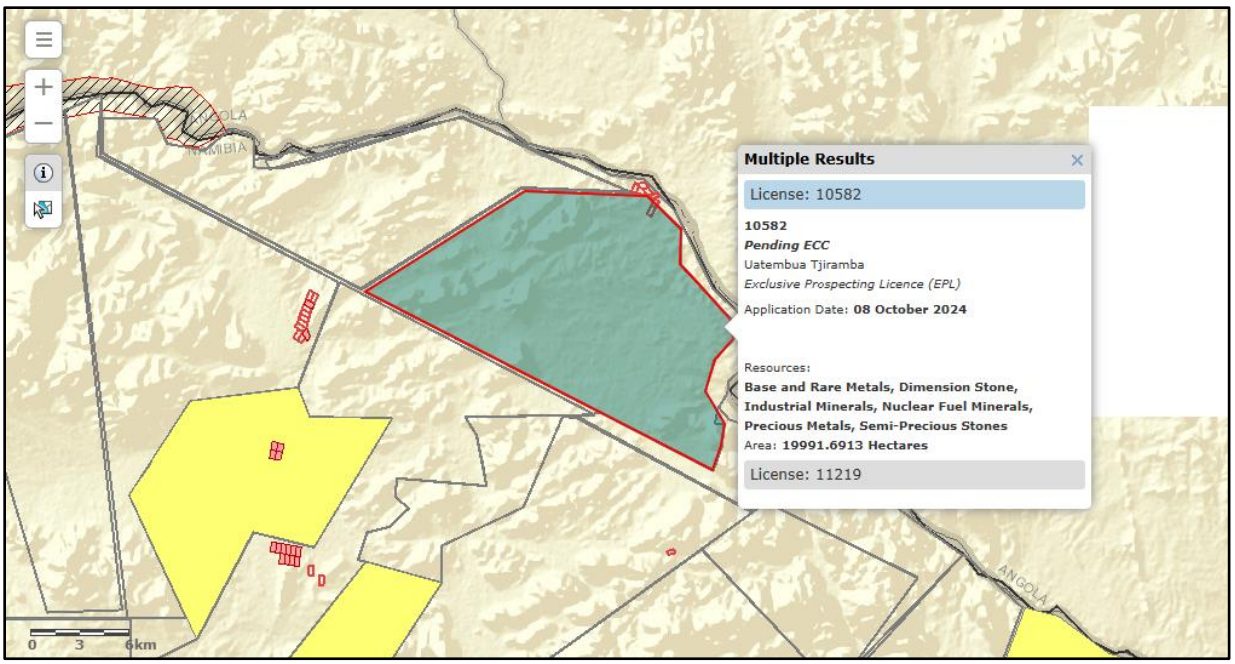

Figure 2: EPL 10582 on the National Mining Cadastre.

3.1.3 Exploration Methods

Non-invasive and possibly invasive exploration activities are expected to take place. Should an economically viable discovery be made, the project may proceed to the mining phase if a mining license is awarded. Should alternative exploration methods be found that are more effective and/or efficient without causing more environmental degradation, it should be implemented.

- Non-Invasive Methods: Geological mapping, geochemical sampling, and geophysical surveys. These methods have minimal environmental impact and will be prioritized in the initial phases.
- Invasive Methods: Drilling (reverse circulation and diamond core) and trenching. While necessary for obtaining subsurface data, these methods have higher environmental footprints, including vegetation clearing, soil disturbance, and noise generation.

A combined approach is recommended: initial reliance on non-invasive methods to narrow down targets, followed by limited invasive exploration in selected areas. This reduces the overall footprint and ensures exploration efficiency.

Table 1: Comparison of Alternatives

Alternative	Advantages	Disadvantages
No-Go	Avoids all negative impacts; maintains ecological integrity.	Loss of economic opportunities, no resource development, missed job creation.
Location	Focused on EPL 10582, legally compliant; activities can be localized to disturbed areas.	Limited flexibility outside EPL boundary; potential land-use conflicts with grazing and conservation.
Methods	Non-invasive methods reduce impact; invasive methods are crucial for collecting key geological data.	Invasive methods cause disturbance to soils, water, vegetation, and communities.

Table 2: Presentation of pitting, and trenching as well as comparison of reverse circulation and diamond drilling methods

Invasive exploration Method (Alternatives Considered)	Short Description	Justification for selected option
Pitting and trenching	-Pits and trenches, or to use the old Cornish mining term, costeans, can be a quick, cheap way of obtaining lithological and structural information in areas of shallow cover. -Pitting is usually employed to test shallow, extensive, flat-lying bodies of mineralization. An ideal example of this would be a buried heavy mineral placer. -The main advantage of pitting over a pattern-drill programme on the same deposit is that pits can provide a very large volume sample. Large sample sizes are necessary to overcome problems of variable grade distribution, which are a characteristic feature of such deposits. -Trenches are usually employed to expose steep dipping bedrock buried below shallow overburden and are normally dug across the strike of the rocks or mineral zone being tested (Marjoribanks, 1997).	-Quick, cheap way of obtaining lithological and structural information in areas of shallow cover. -Pits can provide a very large volume sample. Large sample sizes are necessary to overcome problems of variable grade distribution, which are a characteristic feature of such deposits. -Trenches are an excellent adjunct to RC drilling programmes, where the structural data from trench mapping is needed to complement the lithological information obtained from the drill cuttings (Marjoribanks, 1997).

Reverse Circulation (RC)	-Crushed rock is collected in the form of cuttings samples called back within stems contrast to conventional drilling that puts the air inside the stems and cuttings outside. Here the air passes downwards through the annular space between the inner shaft and the outer tube. -Water is often used down the hole to cool the drill bit and reduce dust as well as assisting with the transportation of sample bits to the surface. -RC drilling is designed for drilling through and crushing hard rock. -RC is fundamentally different from diamond core drilling, both in terms of equipment and sampling. One major difference is that RVC drilling creates small rock chips instead of solid core. Furthermore, according to Technidrill (2020), the RC method: -Allows full recovery of samples continuously -Quick installation -There is no contact between the walls and cuttings taken at the bottom. -The penetration rate is fast (Technidrill, 2020)	-Compared to diamond drilling, RC requires less water. Therefore, RC drilling will put less pressure on water supply and use. The major differences between RC and diamond drilling are in the rate of penetration and cost per foot. RC drilling is faster than diamond core drilling, and less expensive. -Unlike diamond drilling, this process creates rock chips, rather than a solid, cylindrical piece of rock. -Some types of information, such as structural details, are not possible to obtain in the absence of solid rock. Despite this disadvantage, much valuable information can still be obtained from the rock chips. For example, chips are much easier to examine under a microscope. Testing of fluorescence and effervescence are easily accomplished (Earth Science Australia, 2020). It is for these reasons that RC will be the most preferred method and mainly used. However, the RC drilling would be combined with Diamond

		drilling where necessary for more reliable data collection and analysis. Diamond drilling would be more applicable where deeper holes are required than is possible using RC drilling. -In-fill drilling would also be applied to support an update to a higher classification of the Mineral Resource estimate.
Infill drilling	The progress of an exploration project mostly depends on the result of the primary boreholes. Therefore, primary exploration boreholes must intersect high-grade mineralization zones with considerable thickness. On the other hand, the infill boreholes are designed based on obtained results from the primary boreholes (Fatehi, et al., 2017). Therefore, infill drilling is intended to support an update to a higher classification of the Mineral Resource estimate. The metallurgical test-work results will improve understanding of blending designs in the exploration schedules for the product offtake specifications (Canyon Resources, 2021).	
Diamond (Core) drilling	-Diamond core drilling uses a drill-bit studded with industrial diamonds, which rotates at the end of drill rod (or pipe). The opening at the end of the diamond bit allows a solid column of rock to move up into the drill pipe and be recovered at the surface	Diamond drilling provides more information including orientation of structures compared to RC drilling. Diamond drilling is accurate with less deviation when compared to

	-The diamond bit is rotated with gentle pressure while being lubricated with water to prevent overheating. As a result, this drilling method generally uses ample water and may put pressure on water supply sources. -Drill cuttings obtained by RC drilling can be analysed and mostly provide compositional information, while core samples will also provide geometrical information (BG Drilling, 2016). Although core drilling provides better results and can drill to greater depths, RC drilling is faster.	RC and can achieve deeper depth of drilling. Diamond drills are usually small and dust free.

Different drilling methods may therefore be chosen to suit specific purposes, but are also determined by accessibility, budget, availability of water and time.

3.2 Location Alternative

Exploration activities are geographically constrained to EPL 10582, as the license is issued by the Ministry of Industries, Mines and Energy (MIME) for this specific area. Relocation is therefore not feasible. Within EPL 10582, invasive activities can, however, be optimized to minimize environmental disturbance by:

- Prioritizing existing tracks and disturbed areas for site access.
- Avoiding ecologically sensitive zones, heritage sites, and community water points.
- Restricting exploration excavations and drilling to areas identified during non-invasive exploration.
- Immediately and progressively restore disturbed areas to a condition as close to natural as possible.

4 LEGAL FRAMEWORK: LEGISLATION, POLICIES AND GUIDELINES

Prospecting and exploration activities have legal implications associated with certain applicable legal standards. A summary of applicable and relevant international policies and Namibian legislation, policies, and guidelines for the proposed development is given in this section (**Table 3**). The proposed prospecting and exploration activities under EPL 10582 must comply with the national legal and policy framework of Namibia, as well as relevant international conventions to which Namibia is a signatory. An overview of applicable legislation, policies, and international agreements that guide environmental protection, sustainable development, and responsible exploration is provided. This summary serves to inform the project Proponent, Interested and Affected Parties, and the decision-makers at the DEA, of the requirements and expectations, as laid out in terms of these instruments, to be adhered to during the proposed exploration activities.

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

This EIA was carried out according to the Environmental Management Act (EMA) and its Environmental Impact Assessment (EIA) Regulations (GG No. 4878 GN No. 30).

The EMA has stipulated requirements to complete the required documentation to obtain an ECC for permission to undertake certain listed activities. These activities are listed under the following Regulations:

- *3.1 The construction of facilities for any process or activities which requires a license, the right of other forms of authorization, and the renewal of a license, right, or other forms of authorization, in terms of the Minerals (Prospecting and Mining Act, 1992).*
- *3.2 other forms of mining or extraction of any natural resources whether regulated by law or not.*
- *3.3 Resource extraction, manipulation, conservation, and related activities.*

The Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878) details requirements for public consultation within a given environmental assessment process (GN 30 S21). The EIA regulations also outline the required details of a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).

Environmental Management Act, 2007 (Act No. 7 of 2007)

This is the principal legislation governing environmental protection in Namibia. It requires that all listed activities, including mineral exploration, undergo an Environmental Impact

Assessment (EIA) and obtain an Environmental Clearance Certificate (ECC) from the Ministry of Environment Forestry and Tourism (MEFT).

Environmental Impact Assessment Regulations, 2012 (GN No. 30 of 2012)

The regulations operationalize the Environmental Management Act by outlining procedures for conducting EIAs, public participation, and submission requirements for ECC applications.

Minerals (Prospecting and Mining) Act, 1992 (Act No. 33 of 1992)

This Act governs the awarding of Exclusive Prospecting Licenses (EPLs) and mining rights in Namibia. It places obligations on license holders to conduct operations responsibly and with due regard for the environment.

Water Resources Management Act, 2013 (Act No. 11 of 2013)

This Act provides for the management, protection, and sustainable use of water resources. Exploration activities requiring groundwater use must obtain permits from the Ministry of Agriculture, Water and Land Reform.

Nature Conservation Ordinance, 1975 (Ord. 4 of 1975)

This ordinance provides for the declaration of conservancies and the protection of wildlife. The Epupa and Okanguati conservancy, in which EPL 10582 is located, was proclaimed under this ordinance, thereby requiring compliance with community-based natural resource management regulations.

Labour Act, 2007 (Act No. 11 of 2007)

The Labour Act regulates employment conditions, health and safety requirements, and protection of workers' rights during exploration activities.

National Heritage Act, 2004 (Act No. 27 of 2004)

The Act protects archaeological and cultural heritage resources. Exploration projects must report any chance finds to the National Heritage Council and avoid disturbance of heritage sites.

Other legal obligations that are relevant to the proposed activities of EPL No. 10582 and related activities are presented below**.**

Table 3: Applicable local, national and international standards, policies and guidelines governing the proposed prospecting and exploration activities

Legislation / Policy / Guideline: Custodian	Relevant Provisions	Implications for this project
The Constitution of the Republic of Namibia, 1990 as amended: **Government of the Republic of Namibia**	The Constitution of the Republic of Namibia (1990 as amended) addresses matters relating to environmental protection and sustainable development. Article 91(c) defines the functions of the Ombudsman to include: "…the duty to investigate complaints concerning the over-utilization of living natural resources, the irrational exploitation of non-renewable resources, the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia…" Article 95(l) commits the state to actively promoting and maintaining the welfare of the people by adopting policies aimed at the: "…Natural resources situated in the soil and on the subsoil, the internal waters, in the sea, in the continental shelf, and in the exclusive economic zone are property of the State."	By implementing the environmental management plan, the establishment will be conformant to the constitution in terms of environmental management and sustainability. Ecological sustainability will be the main priority for the proposed development.
Minerals (Prospecting and Mining) Act (No. 33 of 1992):	Section 52 requires mineral license holders to enter into a written agreement with affected landowners	The Proponent should enter into a written agreement with landowners before exploring their land. On communal land,

Legislation / Policy / Guideline: Custodian	Relevant Provisions	Implications for this project
Ministry of Industry, Mines and Energy (MIME)	before exercising rights conferred upon the license holder. Section 52(1) mineral license holder may not exercise his/her rights in any town or village, on or in a proclaimed road, land utilized for cultivation, within 100m of any water resource (borehole, dam, spring, drinking trough, etc.) and boreholes, or no operations in municipal areas, etc.), which should individually be checked to ensure compliance. Section 54 requires a written notice to be submitted to the Mining Commissioner if the holder of a mineral license intends to abandon the mineral license area. Section 68 stipulates that an application for an exclusive prospecting license (EPL) shall contain the particulars of the condition of, and any existing damage to, the environment in the area to which the application relates and an estimate of the effect which the proposed prospecting operations may have on the environment and the measures to be taken to prevent or minimize any such effect.	the Proponent should engage the landowners for land use consent. An assessment of the impact on the receiving environment should be carried out. The Proponent should include as part of their application for the EPL, measures by which they will rehabilitate the areas where they intend to carry out mineral exploration activities. The Proponent may not carry out exploration activities within the areas limited by Section 52 (1) of this Act.

Legislation / Policy / Guideline: Custodian	**Relevant Provisions**	**Implications for this project**
	Section 91 requires that rehabilitation measures should be included in an application for a mineral license.	
Mine Health & Safety Regulations, 10th Draft**: Ministry of Health and Social Services (MHSS)**	Makes provision for the health and safety of persons employed or otherwise present in the mineral licenses area. These deal with among other matters; clothing and devices; design, use, operation, supervision, and control of machinery; fencing and guards; and safety measures during repairs and maintenance.	The Proponent should comply with all these regulations concerning their employees.
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)**: Ministry of Industry, Mines and Energy (MIME)**	Regulation 3(2)(b) states that "No person shall possess [sic] or store any fuel except under the authority of a license or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 liters or less in any container kept at a place outside a local authority area"	The Proponent should obtain the necessary authorization from the MIME for the storage of fuel on-site.
The Regional Councils Act (No. 22 of 1992)**: Ministry of Urban and Rural Development (MURD)**	This Act sets out the conditions under which Regional Councils must be elected and administer each delineated region. From a land use and project planning perspective, their duties include, as described in section 28 "to undertake the planning of the development of the region for which it has been established with a	The relevant Regional Councils are IAP's and must be consulted during the Environmental Assessment (EA) process. The project site falls under the Kunene Regional Council; therefore, they should be consulted.

Legislation / Policy / Guideline: Custodian	**Relevant Provisions**	**Implications for this project**
	view to physical, social and economic characteristics, urbanization patterns, natural resources, economic development potential, infrastructure, land utilization pattern and sensitivity of the natural environment.	
Traditional Authority Act (Act No. 25 of 2000): **Ministry of Urban and Rural Development (MURD)**	The Act also stipulates that Traditional Authorities (TAs) should ensure that natural resources are used on a sustainable basis that conserves the ecosystem. This Act implies that Tas must be fully involved in the planning of land use and development for their area. It is the responsibility of the TA's customary leadership, the Chiefs, to exercise control on behalf of the state and the residents in their designated area.	The EPL falls under the Kapika Traditional Authority. Therefore, the Traditional authorities and community members should be consulted.
Water Act 54 of 1956**: Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR)**	The Water Resources Management Act 11 of 2013 is present without regulations; therefore, the Water Act No 54 of 1956 is still in force: Prohibits the pollution of water and implements the principle that a person disposing of effluent or waste has a duly of care to prevent pollution (S3 (k)). Provides for control and protection of groundwater (S66 (1), (d (ii)).	The protection (both quality and quantity/abstraction) of water resources should be a priority. The permits and license required thereto should be obtained from MAFWLR's relevant Departments (these permits include Borehole Drilling Permits, Groundwater Abstraction & Use Permits,

Legislation / Policy / Guideline: Custodian	**Relevant Provisions**	**Implications for this project**
	Liability of clean-up costs after closure/abandonment of an activity (S3 (l)). (l)).	and when required, Wastewater / Effluent Discharge Permits).
Water Resources Management Act (No 11 of 2013)**: Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR)**	The Act provides for the management, protection, development, use, and conservation of water resources; provides for the regulation and monitoring of water services and provides for incidental matters. The objects of this Act are to: Ensure that the water resources of Namibia are managed, developed, used, conserved, and protected in a manner consistent with, or conducive to, the fundamental principles set out in Section 66 - protection of aquifers, Subsection 1 (d) (iii) provide for preventing the contamination of the aquifer and water pollution control (S68).	
National Heritage Act No. 27 of 2004**: Ministry of Education, Arts, and Culture (MEAC)**	To provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.	The Proponent should ensure compliance with this act's requirements. The necessary management measures and related permitting requirements must be taken. This is done by consulting with the National Heritage Council

Legislation / Policy / Guideline: Custodian	**Relevant Provisions**	**Implications for this project**
The National Monuments Act (No. 28 of 1969)**: Ministry of Education, Arts, and Culture (MEAC)**	The Act enables the proclamation of national monuments and protects archaeological sites.	(NHC) of Namibia. The management measures should be incorporated into the Draft EMP.
Soil Conservation Act (No 76 of 1969)**: Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR)**	The Act makes provision for the prevention and control of soil erosion and the protection, improvement, and conservation of soil, vegetation, and water supply sources and resources, through directives declared by the Minister.	Duty of care must be applied to soil conservation and management measures must be included in the EMP.
Local Authorities Act No. 23 of 1992	To provide for the determination, for purposes of traditional government, of traditional authority councils; the establishment of such authority councils; and to define the powers, duties and functions of traditional authority councils; and to provide for incidental matters.	Epupa constituency is the responsible local authority of the area therefore they should be notified.
Public Health Act (No. 36 of 1919)**: Ministry of Health and Social Services (MHSS)**	Section 119 states that “no person shall cause a nuisance or shall suffer 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.”	The Proponent and all its employees should ensure compliance with the provisions of these legal instruments.

Legislation / Policy / Guideline: Custodian	**Relevant Provisions**	**Implications for this project**
Health and Safety Regulations GN 156/1997 (GG 1617)**: Ministry of Health and Social Services (MHSS)**	Details various requirements regarding the health and safety of labourers.	
Public and Environmental Health Act No. 1 of 2015**: Ministry of Health and Social Services (MHSS)**	The Act serves to protect the public from nuisance and states that no person shall cause a nuisance or shall suffer 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.	The Proponent should ensure that the project infrastructure, vehicles, equipment, and machinery are designed and operated in a way that is safe, or not injurious or dangerous to public health, and that the noise and dust emissions which could be considered a nuisance remain at acceptable levels. Public and environmental health should be preserved and remain uncompromised.
Atmospheric Pollution Prevention Ordinance (1976)**: Ministry of Health and Social Services (MHSS)**	This ordinance provides for the prevention of air pollution and is affected by the Health Act 21 of 1988. Under this ordinance, the entire area of Namibia, apart from East Caprivi, is proclaimed as a controlled area for section 4(1) (a) of the ordinance.	The proposed project and related activities should be undertaken in such a way that they do not pollute or compromise the surrounding air quality. Mitigation measures should be put in place and implemented on site.

Legislation / Policy / Guideline: Custodian	**Relevant Provisions**	**Implications for this project**
Hazardous Substance Ordinance, No. 14 of 1974**: Ministry of Health and Social Services (MHSS)**	The ordinance provides for the control of toxic substances. It covers manufacture, sale, use, disposal, and dumping as well as import and export. Although the environmental aspects are not explicitly stated, the ordinance provides for the importing, storage, and handling.	The Proponent should handle and manage the storage and use of hazardous substances on site so that they do not harm or compromise the site environment
Road Traffic and Transport Act, No. 22 of 1999**: Ministry of Works and Transport (Roads Authority of Namibia)**	The Act provides for the establishment of the Transportation Commission of Namibia; for the control of traffic on public roads, the licensing of drivers, the registration and licensing of vehicles, the control and regulation of road transport across Namibia's borders; and for matters incidental thereto. Should the Proponent wish to undertake activities involving road transportation or access to existing roads, the relevant permits will be required.	Mitigation measures should be provided for, if the roads and traffic impact cannot be avoided, the relevant permits must be applied for.
Labour Act (No. 6 of 1992)**: Ministry of Labour, Industrial Relations and Employment Creation (MLIREC)**	Ministry of Labour, Industrial Relations and Employment Creation is aimed at ensuring harmonious labour relations through promoting social justice, occupational health and safety, and enhanced labour market services for the benefit of all Namibians. This ministry insures the effective implementation of the Labour Act No. 6 of 1992.	The Proponent should ensure that the prospecting and exploration activities do not compromise the safety and welfare of workers.

4.2 International Policies, Principles, Standards, Treaties, and Conventions

The international policies, principles, standards, treaties, and conventions applicable to the project are listed in **Table 4** below.

Table 4: International Policies, Principles, Standards, Treaties and Convention applicable to the project.

Statute	Provisions	Project Implications
Equator Principles	A financial industry benchmark for determining, assessing, and managing environmental and social risk in projects (August 2013). The Equator Principles have been developed in conjunction with the International Finance Corporation (IFC), to establish an International Standard with which companies must comply to apply for approved funding by Equator Principles Financial Institutions (EPFIs). The principles apply to all new project financings globally across all sectors. Principle 1: Review and Categorization Principle 2: Environmental and Social Assessment Principle 3: Applicable Environmental and Social Standards Principle 4: Environmental and Social Management System and Equator Principles Action Plan Principle 5: Stakeholder Engagement Principle 6: Grievance Mechanism Principle 7: Independent Review Principle 8: Covenants Principle 9: Independent Monitoring and Reporting Principle 10: Reporting and Transparency	These principles are an attempt to: '…encourage the development of socially responsible projects, which subscribe to appropriately responsible environmental management practices with a minimum negative impact on project-affected ecosystems and community-based upliftment and empowering interactions.'

Statute	Provisions	Project Implications
The International Finance Corporation (IFC) Performance Standards	The International Finance Corporation's (IFC) Sustainability Framework articulates the Corporation's strategic commitment to sustainable development and is an integral part of the IFC's approach to risk management. The Sustainability Framework comprises IFC's Policy and Performance Standards on Environmental and Social Sustainability, and IFC's Access to Information Policy. The Policy on Environmental and Social Sustainability describes IFC's commitments, roles, and responsibilities related to environmental and social sustainability. As of 28 October 2018, there are ten (10) Performance Standards (Performance Standards on Environmental and Social Sustainability) that the IFC requires project Proponents to meet throughout the life of an investment. These standard requirements are briefly described below. Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Performance Standard 2: Labour and Working Conditions Performance Standard 3: Resource Efficient and Pollution Prevention and Management Performance Standard 4: Community Health and Safety Performance Standard 5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	The Performance Standards are directed toward clients, guiding how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business sustainably, including stakeholder engagement and disclosure obligations of the Client (Borrower) concerning project-level activities. In the case of its direct investments (including project and corporate finance provided through financial intermediaries), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced. IFC uses the Sustainability Framework along with other strategies, policies, and initiatives to direct the business activities of the Corporation to achieve its

Statute	Provisions	Project Implications
	Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Performance Standard 7: Indigenous Peoples/Sub-Saharan African Historically Undeserved Traditional Local Communities Performance Standard 8: Cultural Heritage Performance Standard 9: Financial Intermediaries (FIs) Performance Standard 10: Stakeholder Engagement and Information A full description of the IFC Standards can be obtained from http://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards?cq_ck=1522164538151#ess1	overall development objectives.
The United Nations Convention to Combat Desertification (UNCCD) 1992	Addresses land degradation in arid regions with the purpose to contribute to the conservation and sustainable use of biodiversity and the mitigation of climate change. The convention's objective is to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas to support poverty reduction and environmental sustainability United Nations Convention.	The project activities should not be such that they contribute to desertification.
Convention on Biological Diversity 1992	Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, to ensure their conservation and sustainable use.	Removal of vegetation cover and destruction of natural habitats should be avoided and where not possible minimized.

Statute	Provisions	Project Implications
	Promote the protection of ecosystems, and natural habitats, and the maintenance of viable populations of species in natural surroundings.	
Stockholm Declaration on the Human Environment, Stockholm (1972)	It recognizes the need for: "a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.	Protection of natural resources and prevention of any form of pollution.

Relevant international Treaties and Protocols ratified by the Namibian Government

- Convention on International Trade and Endangered Species of Wild Fauna and Flora (CITES), 1973.
- Convention on Biological Diversity, 1992.
- World Heritage Convention, 1972.

4.3 Namibian Policy Framework

4.3.1.1 National Development Plans (NDPs)

The project aligns with Namibia's development goals as outlined in the National Development Plans, particularly NDP6, which emphasizes economic growth, job creation, and sustainable natural resource management.

4.3.1.2 Vision 2030

Namibia's long-term development framework, Vision 2030, promotes sustainable development, responsible natural resource use, and poverty alleviation. Mineral exploration contributes to these goals when undertaken responsibly.

4.3.1.3 Harambee Prosperity Plan (HPP)

The Harambee Prosperity Plan underscores economic advancement, job creation, and improved service delivery. Exploration projects contribute to these outcomes by stimulating local economies.

4.4 International Conventions

Namibia is a signatory to several international conventions relevant to exploration activities, including:

- Convention on Biological Diversity (CBD) – Promotes conservation of biological diversity and sustainable use of its components.
- United Nations Framework Convention on Climate Change (UNFCCC) – Requires mitigation of activities contributing to climate change, including emission reduction practices.
- Ramsar Convention on Wetlands – Protects wetlands of international importance; though none exist within EPL 10582, compliance is required for national wetlands.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – Regulates trade in endangered plant and animal species to prevent exploitation.

5 ENVIRONMENTAL AND SOCIAL BASELINE

The project activities will be undertaken in specific environmental and social conditions. The understanding of these conditions helps in identifying the sensitive environmental features that may need to be protected through the implementation of certain management and mitigation measures.

The summary of selected physical, biological and social baseline information of the project area is provided below as per the site visit conducted by the Consultant on the 1st of November 2025 and relevant published reports and books. The climatic conditions of the project area are described using the available nearest data for the area obtained from the Meteoblue website (2025).

5.1 Biophysical Environment

5.1.1 Climate

The EPL located east of Epupa, has a climate consistent with Omuramba. Omuramba has a regional steppe climate (Classification: *BWh*) with annual rainfall of approximately 280mm, rainfall season spans from October to April and peaking rainfall is received in February and March. The average daily maximum temperatures are recorded during October and November reaching up to 35°C; the coldest temperatures are recorded in June and July with average temperatures reaching as low as 13°C. The winter season, characterised by little to no

precipitation, extends from May to September. Wind direction is mostly southeastern and Northwestern.

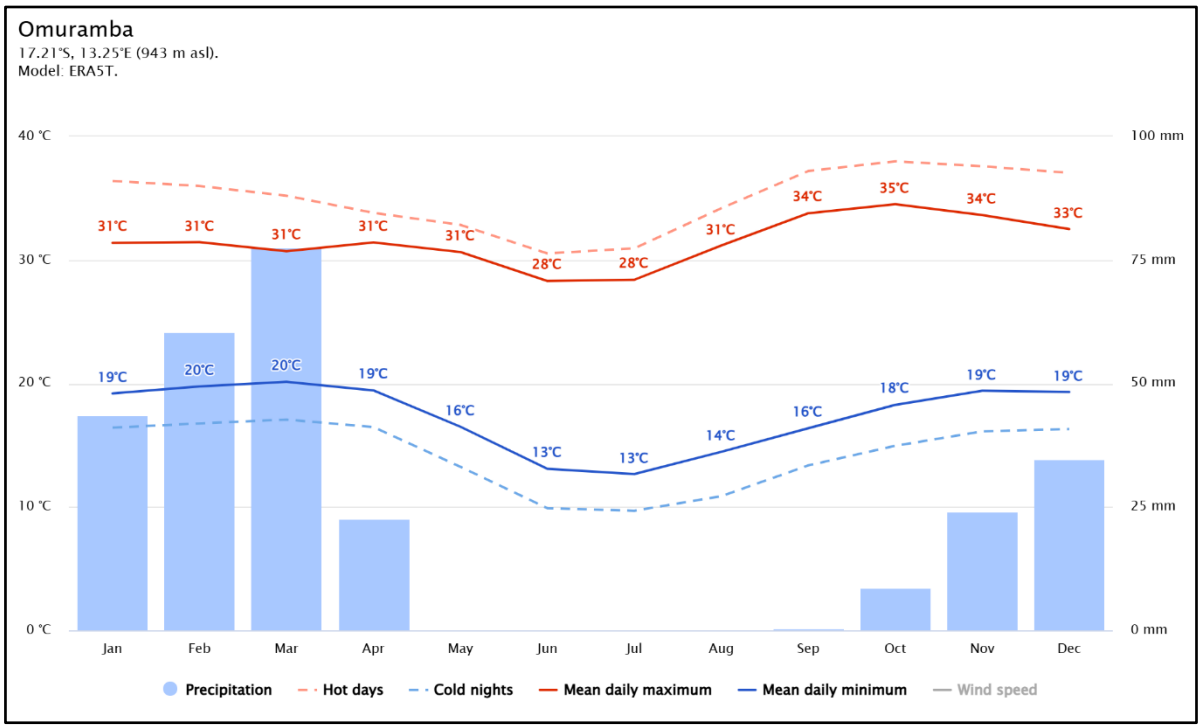

Figure 3: Climate overview around the project area.

5.1.2 Topography

The landscape is rugged, comprising rocky hills, escarpments, and drainage systems. Elevations range between 587 to 1145masl. One of the prominent mountains in the area is Zebra Mountain, located south of the EPL. Furthermore, the EPL is located on the Kunene Hills landscape that is characterised by rocky outcrops, undulating hills, and scattered inselbergs that rise abruptly from the surrounding plains (Atlas of Namibia Team, 2022). The elevation decreases toward the Kunene River which is the Transboundary border for Namibia and Angola. **Figure 4** below shows the Topography map of the project area.

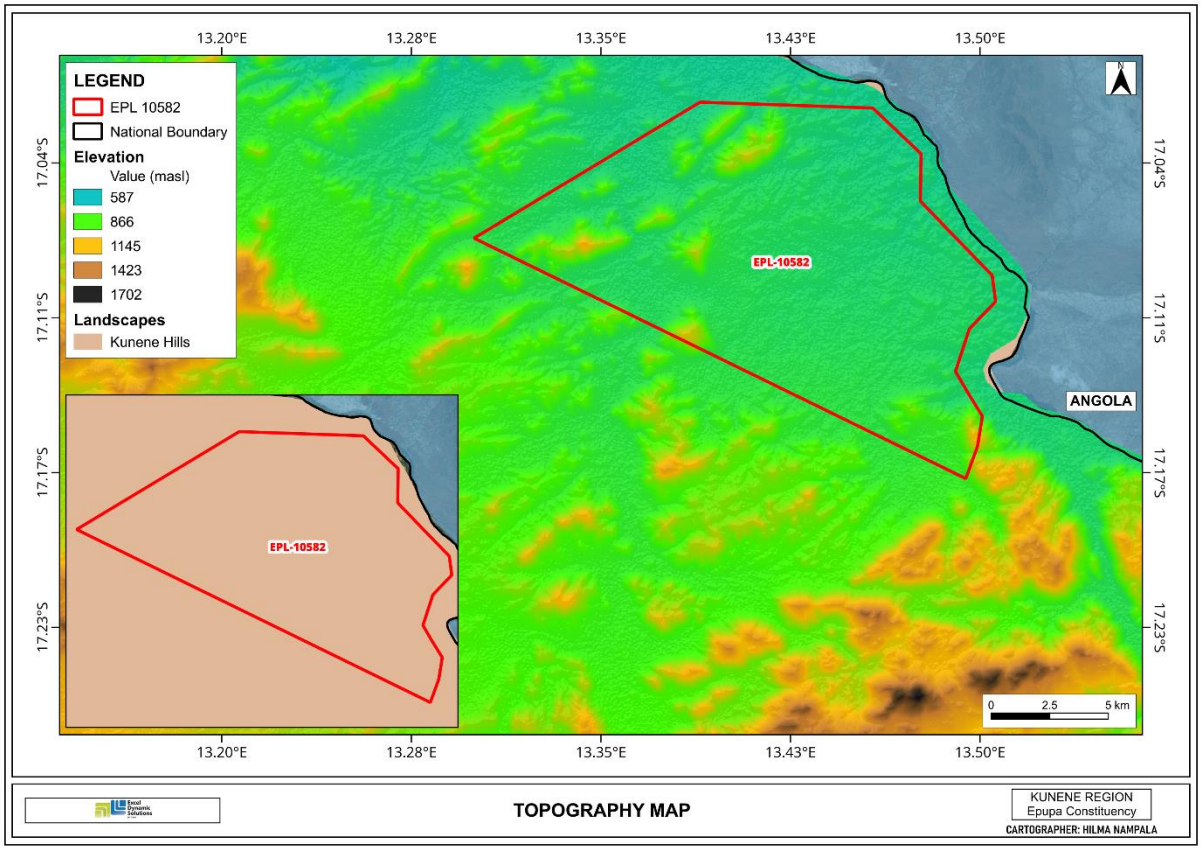

Figure 4: Topography Map for EPL 10582.

Figure 5: Topography overview on the EPL.

5.1.3 Geology

The geology of the area is characterised by intrusive lithologies of the Kunene Anorthosite Complex. Kunene olivine–anorthosite is typically coarse-grained and composed predominantly of plagioclase feldspar with subordinate olivine, characteristic of massif-type anorthositic intrusions. This is followed by occurrences of Kunene syenite, an intrusive, felsic to intermediate igneous rock composed mainly of alkali feldspar. The syenitic bodies occur as discrete intrusive phases within the anorthositic suite. Also present is Kunene leuconorite/leucotroctolite primarily consisting of plagioclase and olivine, with lesser pyroxene. Portions of the EPL are covered by alluvial and surficial deposits, particularly along drainage channels and gentle elevation area. **Figure 6** below shows the geology map.

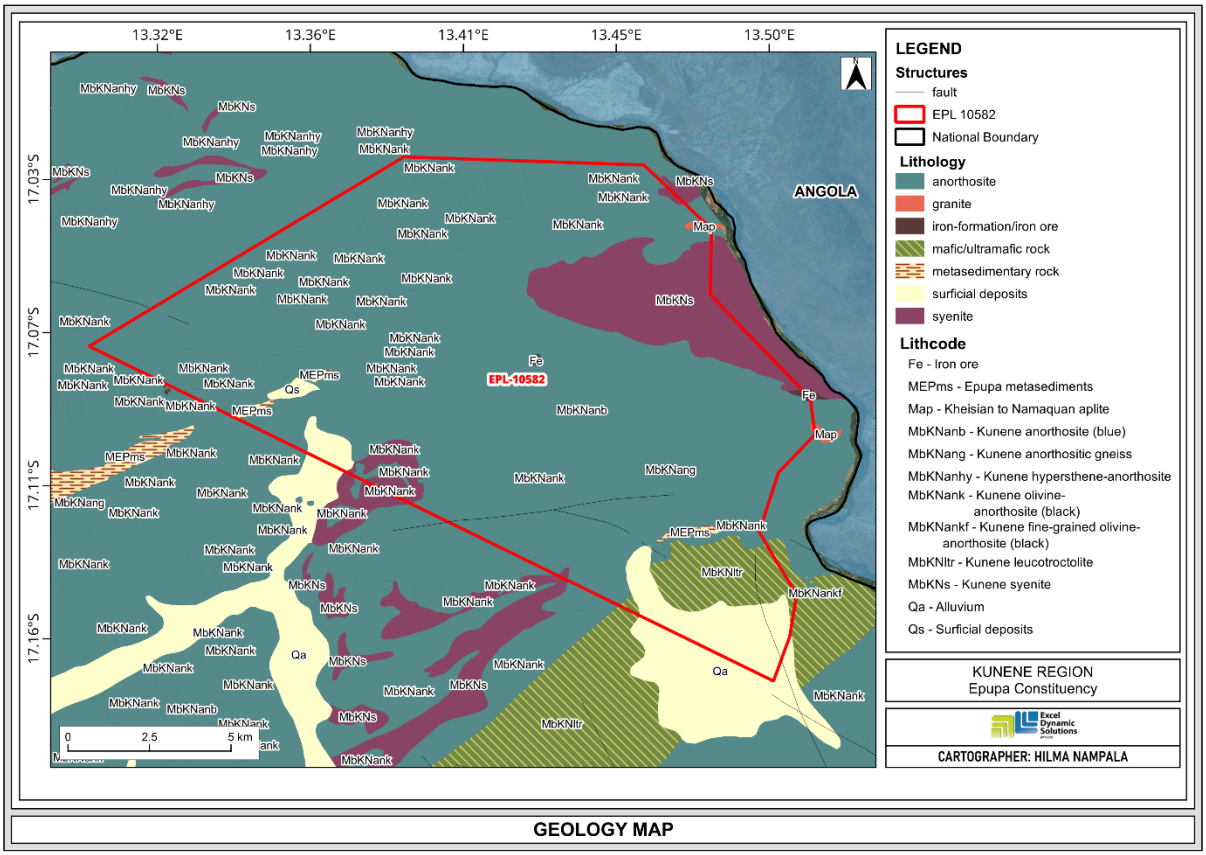

Figure 6: Geology map of the EPL area.

5.1.4 Soil

The soil profile on the EPL consist mainly of Chromic Cambisols, and rock outcrops. Cambisols are poorly developed soils formed where the parent material is recently deposited or exposed, or where aridity or low temperatures slow down the processes of soil formation (Atlas of Namibia Team, 2022). The Cambisols form in a wide variety of medium to fine-textured parent materials, mostly in young colluvial, alluvial and aeolian deposits. Cambisols are usually found in level to mountainous terrain, in different climates, however mostly found

in arid climates. The chromic soil qualifier refers to soils with bright reddish colours in the subsoil. Chromic soils have a layer of at least 30 cm thick, between 25 and 150 cm from the soil surface, that has, in more than 90 % of its exposed area, a moist Munsell colour hue redder than 7 and chroma of more than 4 (Coetzee, 2021). The rock outcrop refers to exposed bedrock formations of varying size and morphology. **Figure 7** below shows that the EPL is largely covered by Chromic Cambisols soils.

It is notable that during the operational phase of the project, soil sampling may be conducted**.** *Therefore, the Soil Conservation Act (No 76 of 1969) should be considered to ensure that soil is conserved in a way that does not promote soil erosion.*

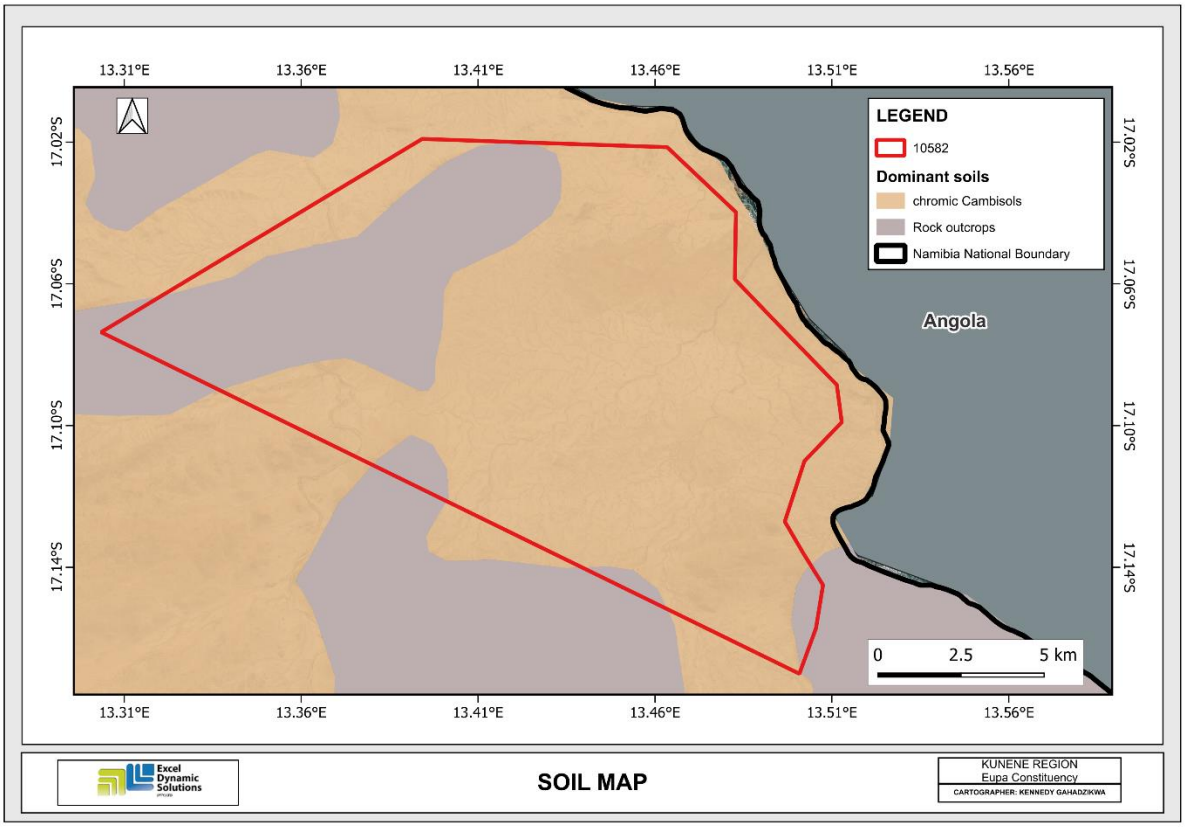

Figure 7: Dominant Soil Map – EPL 10582

Figure 8: A type of sandy soil observed on EPL 10582.

5.1.5 Water Resources: Groundwater and Surface Water

The EPL is underlain primarily by rock bodies showing low groundwater potential, classified as very low to limited. Consequently, the overall aquifer potential and groundwater vulnerability across the area is low. Surface water resources are present in the Kunene River however within the EPL surface water is generally scarce due to high runoff, though rivers, notably such as the Ombuka and Oheuva, that flows water towards the Kunene Perennial River. The database only shows one borehole exist nearby the EPL vicinity. **Figure 9** shows the hydrological map of the project area.

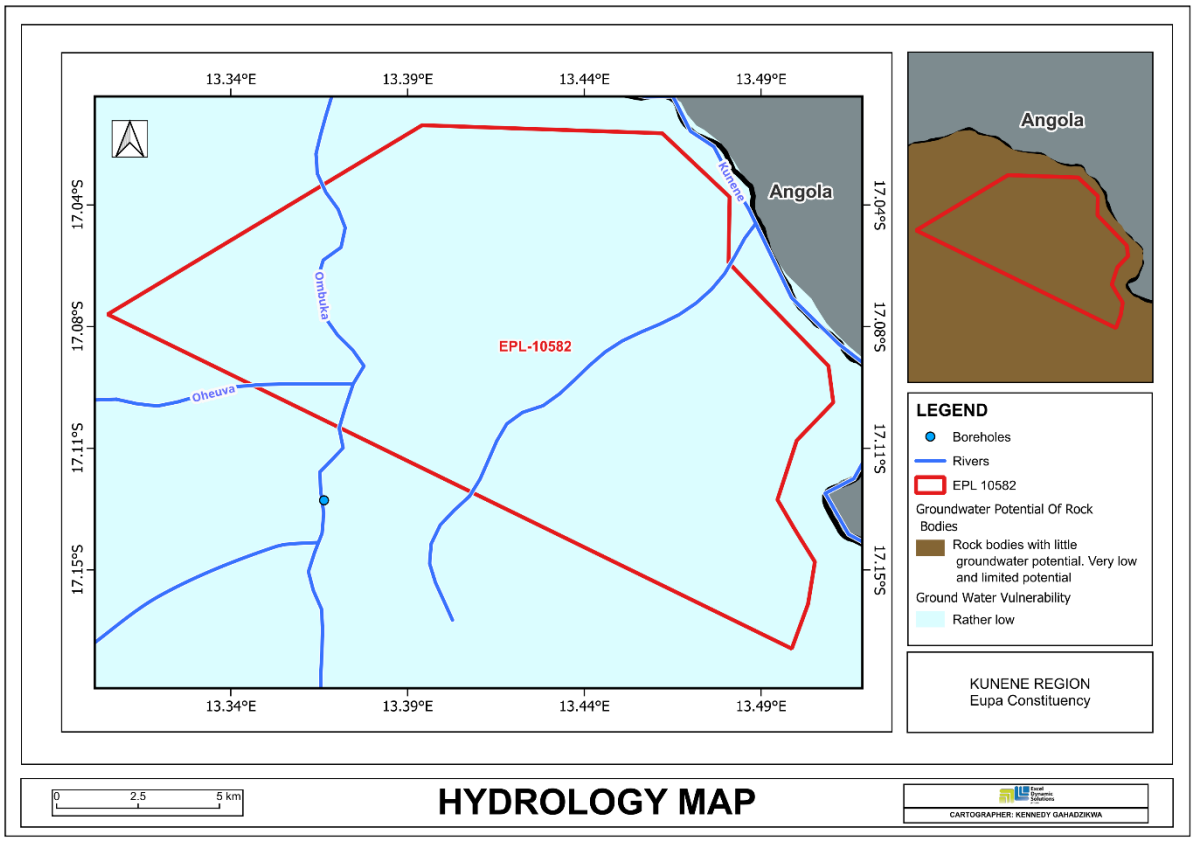

Figure 9: Hydrological map – EPL 10582.

Figure 10: Kunene River perennial transboundary river Nearby the EPL.

5.1.6 Flora and Fauna

5.1.6.1 Flora

EPL 10582 is located within the Acacia tree and shrub savannah of the Western Highlands, a semi-arid biome classified under the Kaokoveld floristic group. The area consists of plant species such as Mopane (*Colophospermum mopane*), Acacia species (e.g., *Acacia reficiens*, *A. erioloba*), Commiphora (*Commiphora wildii*), Shepherd's Tree (*Boscia albitrunca*), Purple-pod Cluster-leaf (*Terminalia prunioides*), and Herero Sesame Bush (*Sesamothamnus guerichii*), Buffalo thorn Ziziphus mucronata, (Alexander Cathophractis) Trumpet Thorn, and bird plum. Ground cover consists of grass and bitterbos. Towards the Kunene perennial river this area has a higher plant density as compared inland nearby the Kunene River of plants such as Makalani (*Peltophorum africanum*) and Large Sourplum (*Ximenia caffra*) are found.

Operational phase might necessitate the clearance of vegetation to accommodate access roads and drilling sites. In compliance with legal and environmental safeguards, the Forest Act (No. 12 of 2001) and the Nature Conservation Ordinance of 1975 must be strictly adhered to. These regulations ensure the protection of flora, particularly protected species such as Mopane, and Boscia spp mandate that necessary permits be secured prior to any vegetation clearance.

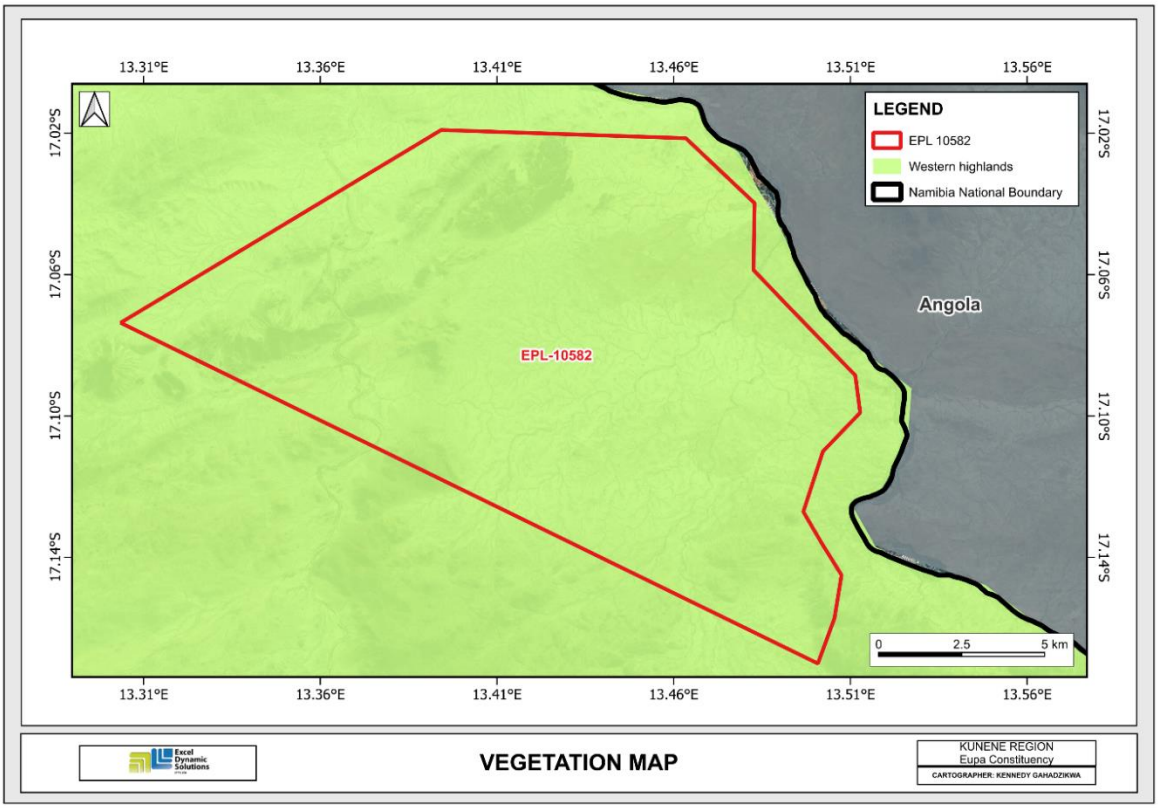

Figure 11: Vegetation map of the EPL.

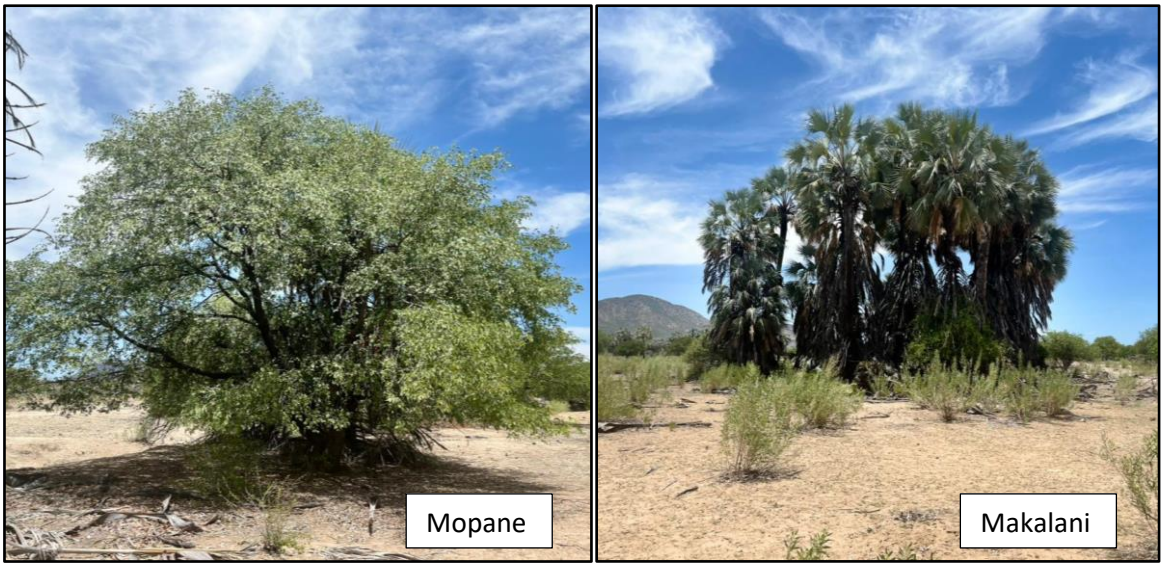

Figure 12: Typical vegetation within the EPL.

5.1.6.2 Fauna

The EPL overlies the Epupa and Okanguati conservancy, according to the conservancy chairpersons Kudu, Zebra, Leopard, Cheetah, Jackal, Caracal can be found within this area. The proximity to the Kunene River consists of additional crocodile specifically the Nile

crocodile and the Kunene big 4 birds namely the Cinderella Waxbill, Rufous-Tailed Palm Thrust, Angola Cave Chat and the Grey Kerstel. Biodiversity data from the Atlas of Namibia Team (2022) indicates the area sustains a rich faunal collection, including an estimated 76–80 mammal species, of which 3–4 are large herbivores and 14–17 are large carnivores. The area also hosts at least 51 bird species, 51–60 reptile species, and approximately 9–12 amphibian species. Invertebrate diversity is comparatively lower, with fewer than two nematode species, 14–20 beetle species, and 3–4 solifuge species. During site visit, mostly livestock were observed. **(Figure 13)** show the observed fauna.

Figure 13: Livestock (Cow) observed nearby EPL 10582.

5.2 Heritage and Archaeology

5.2.1 Local Level and Archaeological Findings

The findings of the heritage assessment indicate that the majority of identified graves are situated along the banks of the Kunene River, outside the boundaries of the EPL area. However, additional graves were recorded nearby the Ohajiuua Primary School. There still remains a possibility that previously unrecorded or undiscovered archaeological materials, features, or human burials may be encountered during the exploration and prospecting phase. In the event that archaeological sites, palaeontological material, and human remains are discovered during exploration activities, all works in the immediate vicinity must cease, and the procedures prescribed under the National Heritage Act, No. 27 of 2004 should be adhered to. In accordance with Section 55(4) of the Act, any such discovery must be reported to the National Heritage Council of Namibia as soon as practically possible. Works may only resume upon receipt of written authorization from the relevant authority.

Figure 14: Graves recorded within the EPL near Ohajiuua Primary School.

Figure 15: Graves recorded near the Kunene River nearby the EPL 10582.

5.3 Surrounding Land Uses

The EPL is located within communal land used primarily as cattle posts for livestock grazing by residents of nearby settlements, including Onyungurura and Okandombo. It falls within the Epupa Conservancy, with a portion extending into the Okanguati Conservancy as shown in **(Figure 16)**, both established under the Nature Conservation Ordinance of 1975.

The dominant land use around the area is communal livestock farming (cattle, goats, and sheep), which constitutes the primary livelihood source. However, many residents are increasingly engaging in mining due to recurring drought, livestock losses, and the comparatively faster income generation associated with mining.

The area also supports tourism facilities along the Kunene River, such as Camp Cornie together with wildlife conservation this forms an integrated land use under the conservancy system. Land tenure is communal, with rights administered by traditional authorities in collaboration with conservancy management committees. The interaction between mining, conservation, and tourism therefore requires coordinated management. The Proponent is

therefore required to secure a signed agreement from the affected landowners to gain access to the areas of interest for prospecting and exploration investigations as per Section 52 of the Minerals (Prospecting and Mining) Act No. 33 of 1992 and Section 2.2.3 of the Minerals Policy of Namibia.

1. Section 52 (1) The holder of the mineral license shall not exercise any rights conferred upon such holder by this Act or under any terms and conditions of such mineral license

    (a) In, on, or under any and until such holder has agreed in writing with the owner of such land containing terms and conditions relating to the payment of compensation, or the owner of such land has in writing waived any right to such compensation and has submitted a copy of such agreement or waiver to the Commissioner.

Section 2.2.3 of the Draft Minerals Policy of Namibia states that the License Holder and/or mineral explorers must negotiate a contract with landowners to gain access for mining purposes. The permission of the Conservancy and Local Authority is required in writing according to the Environmental Management Act (2007).

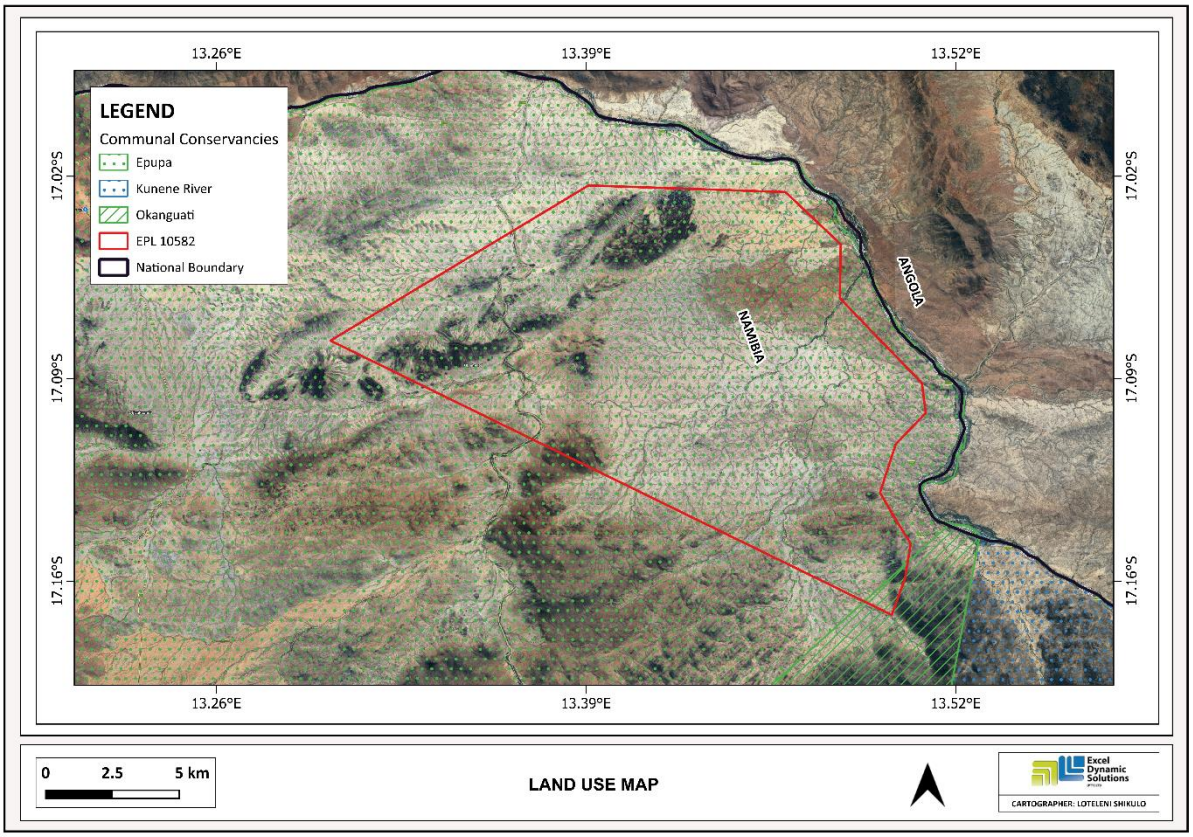

Figure 16: Land use map EPL 10582.

Adjacent to the EPL, along the banks of the Kunene River there is the tourism facility Camp Cornie, as well as numerous subsistence crop gardens that utilise water from the perennial river. Within the EPL, one school Ohajiuaa Primary School was observed. The remainder of the tenement is largely open comprising of scattered villages, homesteads, and subsistence crop gardens of the Ovahimba and Ovazemba communities.

5.4 Socio-Economic conditions

According to the Kunene Regional Development Profile (2015), the Kunene region is geographically located in the north-western part of Namibia, the region's administrative capital is Okanguati. The region covers an area of 115 293 square km of the total Namibian land, making it the second largest region in Namibia after //Karas region. The EPL lies northwest of Okanguati the socio-economic characteristics are linked to the Epupa constituencies.

5.4.1 Population

According to the 2023 Population and Housing Census, Epupa Constituency has a total population of 26,491 inhabitants, of which 12,436 are males, while 14,055 are females. The total area size of Epupa Constituency is 23,617.36 square kilometer's representing a population density of 1.1 inhabitants, among the least populated constituency in the region. Epupa Constituency has 24,326 household population, 4,424 households representing an average household size of 5.5, the highest in the region (NSA, 2024).

5.4.2 Farming

The Kunene region, in which the EPL is situated, ranks among Namibia's least economically developed regions (First Capital, 2022). It is characterised by high poverty levels, elevated unemployment, and constrained access to basic services. The regional economy is predominantly subsistence-based, relying on agriculture and livestock farming, with supplementary income from remittances and government social grants. This pattern of underdevelopment is reflected in the Epupa Constituency, where the primary economic activity is communal agriculture, encompassing both livestock and mostly subsistence crop production. Approximately 77% of the population depends on farming as their main income source. While official data suggests an employment rate of 81%, this figure is heavily reliant on subsistence activities; only 6% of income is derived from formal wages and salaries, with a further 8% coming from pensions (First Capital, 2022). The local economy is critically tied to livestock production, with sales in centers like Opuwo providing a vital cash income. Gender disparities are pronounced, with women typically managing a dual burden of domestic and

agricultural labour while having minimal access to formal employment opportunities (Kunene Regional Development Profile, 2015).

5.4.3 Tourism

The Kunene Region is a prime tourist destination, renowned for its rugged landscapes and rich cultural traditions. Its economy is significantly strengthened by tourism, centered around a network of conservancies that host 46% of the nation's protected wildlife, including desert elephants and rhinos. Furthermore, potential investment areas include Epupa Constituency having potential to become a tourist hub as it hosts some of the tourism hot spots in the region, such as the Epupa falls and Kapika Traditional Homestead. Apart from that, the Epupa constituency has potential to become a national income (economic) source for the country, by the construction of Baynes Hydro Power Station and Agra-Fria Harbour. This will be an advantage to Namibia as currently, according to the 2011 Census, Epupa has 78% of residents still depending on wood, for cooking and lighting. Other areas of potential investment include: Tourism Facilities – Lodges, Hostels and Camping sites; Construction of roads and bridges; Construction of schools; Rural Electrification – Off Grid and On-grid electricity; Construction of a service station at Epupa Falls

5.4.4 Mining

The EPL included a portion of area that was previously a mining with drawn area due to the Baynes Hydro Power Station plant was shifted the area. This area is mountainous formations host significant mineral reserves, making it highly prospective for exploration. Advanced-stage projects there have strong potential to become major drivers of regional economic growth which are pivotal for regional economic growth and development. Extensive mineral exploration activities are underway in and around mountainous areas in the region (Kunene Regional Development Profile, 2015). Within this context, the proposed exploration project presents potential socioeconomic opportunities. As noted in the Kunene Regional Development Profile (2015), such initiatives could contribute to local development through the creation of temporary employment, skills transfer, targeted empowerment of women, and the stimulation of local businesses via procurement spending.

6 PUBLIC CONSULTATION PROCESS

Public consultation is an important component of the Environmental Assessment (EA) process. It provides potential Interested and Affected Parties (I&APs) with an opportunity to comment on and raise any issues relevant to the project for consideration in part of the assessment process. Public input assists the Environmental Assessment Practitioner (EAP) in identifying all potential impacts and the extent to which further investigations are necessary. Public consultation can also aid in the process of identifying possible mitigation measures. Public consultation for this scoping study has been done following the EMA and its EIA Regulations.

6.1 Pre-identified and Registered Interested and Affected Parties (I&APs)

Relevant and applicable national, regional, and local authorities and other interested members of the public were identified. Pre-identified I&APs were contacted directly, while other parties who contacted the Consultant after project advertisement notices in the newspapers, were registered as I&APs upon their request. Newspaper advertisements of the proposed exploration activities were placed in two widely read national newspapers in the region (New Era Newspaper and The Namibian Newspaper). The project advertisement/announcement ran for two consecutive weeks inviting members of the public to register as I&APs and submit their comments. The summary of pre-identified and registered I&APs is listed in **Table 5** below and the complete list of I&APs is provided in **Appendix D**.

Table 5: Summary of Interested and Affected Parties (I&APs)

National (Ministries and State-Owned Enterprises)
Ministry of Environment, Forestry and Tourism
Ministry of Industries, Mines and Energy
Regional, Local, and Traditional Authorities
Kunene Regional Council, Okanguati, and Epupa constituency
Kapika Traditional Authority
Okanguati & Epupa Conservancy
General Public
Landowners /Interested members of the public

6.2 Communication with I&APs

Regulation 21 of the EIA Regulations details the steps to be taken during a public consultation process, and these have been used in guiding this process. Communication with I&APs concerning the proposed development was facilitated through the following means and in this order:

- A Background Information Document (BID) containing brief information about the proposed exploration works was compiled and emailed to registered and Identified Interested and Affected Parties (I&APs);
- Project Environmental Assessment notices were published in the New Era Newspaper **(19 December 2025 and 06 January 2026),** and The Namibian Newspaper **(19 December 2025 and 06 January 2026),** briefly explaining the activity and its locality and inviting members of the public to register as I&APs and submit their comments/concerns.
- Public notice to inform members of the public about the EIA process was placed at Kunene Reginal Council **(Figure 17).**
- Public meeting was scheduled at Omuzororua village between Onyungurura & Camp Cornie. The meeting was then held on the 16 February 2026 at 11h00. The issues and concerns raised were noted and used to form the basis for the ESA Report and EMP.

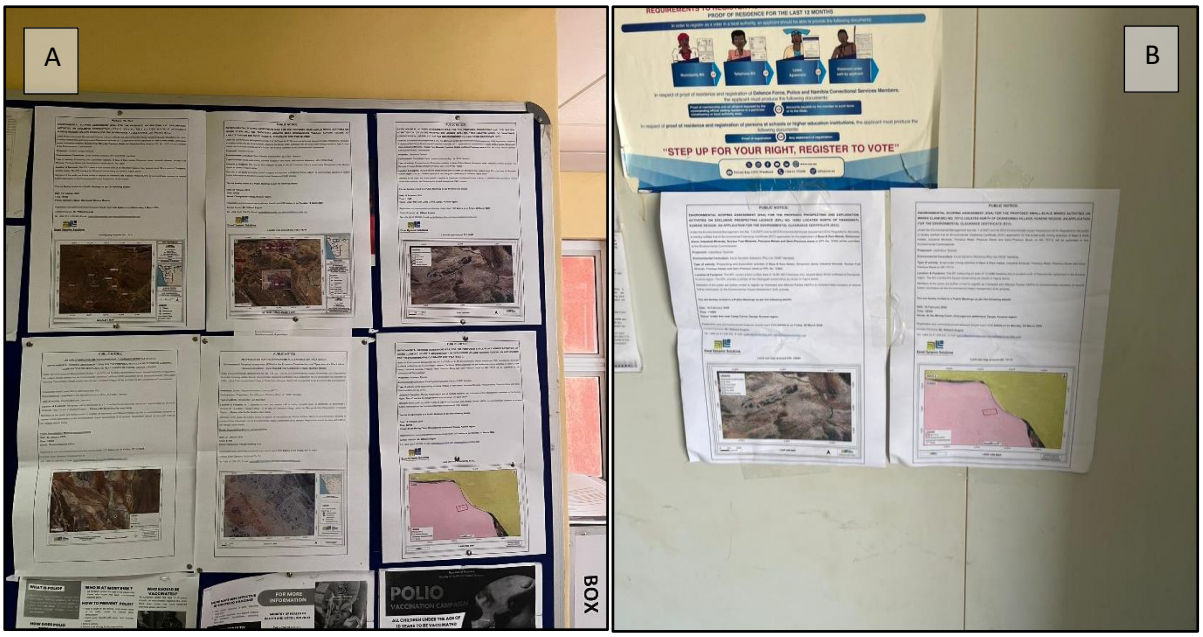

Figure 17: Site notices at (A) Kunene Regional Council & (B) Epupa police station.

Figure 18: Consultation meetings near Camp Cornie under tree, Kunene region.

Issues raised by I&APs have been recorded and incorporated in the environmental report and EMP. The summarised issues raised during the public meeting are presented in **Table 6** below. The issues raised and responses by EDS are attached under **Appendix G.**

Table 6: Summary of main issues raised, and comments received during public meeting engagements

Issue	Concern
Existing graves should not be disturbed by proposed activities.	Existing graves should be protected.

7 IMPACT IDENTIFICATION, ASSESSMENT AND MITIGATION MEASURES

7.1 Impact Identification

Proposed developments/activities are usually associated with different potential positive and/or negative impacts. For an environmental assessment, the focus is placed mainly on the negative impacts. This is done to ensure that these impacts are addressed by providing adequate mitigation measures such that an impact's significance is brought under control while maximizing the positive impacts of the development. The potential positive and negative impacts that have been identified from the prospecting activities are listed as follows:

Positive impacts:

- Socio-economic development: Creation primarily temporary, employment opportunities and trained local workforce.
- Investment and infrastructure benefits: Potential investment opportunities and infrastructure-related development associated with exploration activities.
- Local and regional economic growth: Contribution to both local, broader regional economic development.
- Land use and rental payments: Payment of land use fees and, where applicable, rental fees for the establishment of structures such as campsites.
- Water resource benefits: Where feasible, exploration boreholes with viable water strikes may be handed over to the community upon completion of exploration activities.

Negative impacts:

- Land and soil disturbance: Physical disturbance from exploration activities and access road development, with increased prone to erosion.
- Biodiversity impacts: Habitat disturbance, vegetation clearance within area of interest, and potential loss of microhabitats for small fauna; risk of poaching.
- Stakeholder conflicts: Potential disputes with small-scale miners operating within or adjacent to the EPL if issues are not proactively managed.
- Water and soil contamination: Risk of pollution affecting water resources and soil quality.
- Air quality impacts: Dust generation from exploration activities and vehicle movements.
- Occupational health and safety impacts: Potential hazards to workers and contractors.
- Traffic and road safety: Increased pressure on local roads and associated safety risks.

- Noise and vibration: Disturbance from drilling, machinery, and vehicle operations, potentially affecting nearby communities.
- Waste management: Environmental impacts arising from inadequate waste management practices.
- Cultural and heritage impact: Potential impacts on archaeological and cultural heritage resources.
- Social and land-use conflicts: impact of community disturbance and competing land-use pressures.

7.2 Impact Assessment Methodology

The Environmental Assessment process primarily ensures that potential impacts that may occur from project activity are identified and addressed with environmentally cautious approaches and legal compliance. The impact assessment method used for this project is following Namibia's Environmental Management Act (No. 7 of 2007) and its Regulations of 2012, as well as the International Finance Corporation (IFC) Performance Standards.

The identified impacts were assessed in terms of scale/extent (spatial scale), duration (temporal scale), magnitude (severity), and probability (likelihood of occurring), as presented in **Table 7**, **Table 8**, **Table 9,** and **Table 10** respectively.

To enable a scientific approach to the determination of the environmental significance, a numerical value is linked to each rating scale. This methodology ensures uniformity and that potential impacts can be addressed in a standard manner so that a wide range of impacts are comparable. It is assumed that an assessment of the significance of a potential impact is a good indicator of the risk associated with such an impact. The following process will be applied to each potential impact:

- Provision of a brief explanation of the impact.
- Assessment of the pre-mitigation significance of the impact; and
- Description of recommended mitigation measures.

The recommended mitigation measures prescribed for each of the potential impacts contribute towards the attainment of environmentally sustainable operational conditions of the project for various features of the biophysical and social environment. The following criteria were applied in this impact assessment:

7.2.1 Extent (spatial scale)

The extent is an indication of the physical and spatial scale of the impact. **Table 7** shows the rating of impact in terms of the extent of spatial scale.

Table 7: Extent or spatial impact rating

Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
The impact is localized within the site boundary: Site only	The impact is beyond the site boundary: Local	Impacts felt within adjacent biophysical and social environments: Regional	Impact widespread far beyond site boundary: Regional	The impact extends National or international boundaries

7.2.2 Duration

Duration refers to the timeframe over which the impact is expected to occur, measured concerning the lifetime of the project. **Table 8** shows the rating of impact in terms of duration.

Table 8:Duration impact rating

Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
Immediate mitigating measures, immediate progress	The impact is quickly reversible, and short-term impacts (0-5 years)	Reversible over time; medium-term (5-15 years)	Impact is long-term	Long-term; beyond closure; permanent; irreplaceable or irretrievable commitment of resources

7.2.3 Intensity, Magnitude/severity

Intensity refers to the degree or magnitude to which the impact alters the functioning of an element of the environment. The magnitude of alteration can either be positive or negative. These ratings were also taken into consideration during the assessment of severity. **Table 9** shows the impact in terms of intensity, magnitude, or severity.

Table 9:Intensity, magnitude, or severity impact rating

Type of criteria	Negative				
	H- (10)	M/H- (8)	M- (6)	M/L- (4)	L- (2)
Qualitative	Very high deterioration, high quantity of deaths, injury or illness / total loss of habitat, total alteration of ecological processes, extinction of rare species	Substantial deterioration, death, illness or injury, loss of habitat/diversity or resource, severe alteration or disturbance of important processes	Moderate deterioration, discomfort, partial loss of habitat/biodiversity or resource, moderate alteration	Low deterioration, slight noticeable alteration in habitat and biodiversity. Little loss in species numbers	Minor deterioration, nuisance or irritation, minor change in species/habitat/ diversity or resource, no or very little quality deterioration.

7.2.4 Probability of occurrence

Probability describes the likelihood of the impacts occurring. This determination is based on previous experience with similar projects and/or based on professional judgment. **Table 10** shows impact rating in terms of probability of occurrence.

Table 10:Probability of occurrence impact rating

Low (1)	Medium/Low (2)	Medium (3)	Medium/High (4)	High (5)
Improbable; low likelihood; seldom. No known risk or vulnerability to natural or induced hazards.	Likely to occur from time to time. Low risk or vulnerability to natural or induced hazards	A possible, distinct possibility, frequent. Low to medium risk or vulnerability to natural or induced hazards.	Probable if mitigating measures are not implemented. Medium risk of vulnerability to natural or induced hazards.	Definite (regardless of preventative measures), highly likely, and continuous. High risk or vulnerability to natural or induced hazards.

7.2.5 Significance

Impact significance is determined through a synthesis of the above impact characteristics. The significance of the impact "without mitigation" is the main determinant of the nature and degree of mitigation required. As stated in the introduction to this section, for this assessment, the significance of the impact without prescribed mitigation actions is measured.

Once the above factors (**Table 7**, **Table 8**, **Table 9,** and **Table 10**) have been ranked for each potential impact, the impact significance of each is assessed using the following formula:

SIGNIFICANCE POINTS (SP) = (MAGNITUDE + DURATION + SCALE) X PROBABILITY

The maximum value per potential impact is 100 significance points (SP). Potential impacts were rated as high, moderate, or low significance, based on the following significance rating scale (**Table 11**).

Table 11:Significance rating scale

Significance	***Environmental Significance Points***	***Colour Code***
High (positive)	>60	H
Medium (positive)	30 to 60	M
Low (positive)	1 to 30	L
Neutral	0	N

Significance	*Environmental Significance Points*	*Colour Code*
Low (negative)	-1 to -30	L
Medium (negative)	-30 to -60	M
High (negative)	-60<	H

Positive (+) – Beneficial impact

Negative (-) – Deleterious/ adverse+ Impact

Neutral – Impacts are neither beneficial nor adverse

For an impact with a significance rating of high (-ve), mitigation measures are recommended to reduce the impact to a medium (-ve) or low (-ve) significance rating, provided that the impact with a medium significance rating can be sufficiently controlled with the recommended mitigation measures. To maintain a low or medium significance rating, monitoring is recommended for a period to enable the confirmation of the significance of the impact as low or medium and under control.

The assessment of the exploration phases is done for pre-mitigation and post-mitigation.

The risk/impact assessment is driven by three factors:

Source: The cause or source of the contamination.

Pathway: The route taken by the source to reach a given receptor

Receptor: A person, animal, plant, ecosystem, property, or a controlled water source. If contamination is to cause harm or impact, it must reach a receptor.

A pollutant linkage occurs when a source, pathway, and receptor exist together. Mitigation measures aim firstly, to avoid risk and if the risk cannot be avoided, mitigation measures to minimize the impact are recommended. Once mitigation measures have been applied, the identified risk would reduce to lower significance (Booth, 2011).

This assessment focuses on the three project phases, namely phase 1 prospecting phase 2 exploration (possible analysis), and phase 3 decommissioning. The potential negative impacts stemming from the proposed activities of the EPL are described and assessed and mitigation measures are provided thereof. Further mitigation measures in the form of management action plans are provided in the Draft Environmental Management Plan.

7.3 Assessment of Potential Negative Impacts

The main potential negative impacts associated with the operation and maintenance phase are identified and assessed below:

7.3.1 Disturbance to the grazing areas

The EPL is overlying communal land that has livestock and mobile to wildlife. Exploration activities such as site clearing, trenching, and drilling can potentially lead to the disturbance of grazing land. This will potentially affect the grazing land available to wildlife and livestock, and since the livestock greatly depends on the little available flora, their livelihood will be impacted.

The effect of exploration work on the land (when done over a wider spatial extent), if not mitigated, may hinder grazing areas. Under the status quo, the impact can be of medium significance. With the implementation of appropriate mitigation measures, the rating will be reduced to a lower significance.

- **Impact:** Temporary loss of grazing land due to drilling pads, pitting, trenches, or access roads.
- **Mitigation:** Minimize footprint by using existing tracks; rehabilitate disturbed sites immediately; engage local herders prior to land access, and utilize existing roads and cleared areas to minimize new land disturbance.

The impact is assessed in **Table 12** below.

Table 12:Assessment of the impacts of exploration on grazing areas

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M: -3	M: -3	M: -4	H: 5	M: -50
Post mitigation	L: -1	L/M: -2	L: -2	L/M: 2	L: -10

7.3.2 Land Degradation and Loss of Biodiversity

Fauna: The trenching, pitting, and drilling activities carried out during exploration would result in land degradation, leading to habitat loss for a diversity of flora and fauna ranging from microorganisms to large animals and trees. Endemic species are vulnerable since even the slightest disruption in their habitat can result in extinction.

The presence and movement of the exploration workforce and operation of project equipment and heavy vehicles would disturb livestock and wildlife present. The proposed activities may

also carry the risk of the potential illegal hunting of local wildlife. This could lead to the reduction of specific faunal species.

Additionally, if the exploration sites are not rehabilitated, they could pose a high risk of injuries to animals by falling into holes and pits.

Flora: Direct impact of exploration works on flora will mainly occur through clearing for exploration access routes and associated infrastructure. The dust emissions from drilling may also affect surrounding vegetation through the fall of dust, if excessive. Some loss of vegetation is an inevitable consequence of the development. However, given a moderate abundance of vegetation and site-specific areas of exploration on the EPL, the impact will be localized, therefore manageable.

Under the status, the impact can be of a medium significance rating. With the implementation of appropriate mitigation measures, the rating will be reduced to a low significance rating.

- **Impact:** Clearing of vegetation, disturbance of mopane woodland and other protected species, risk of invasive species.
- **Mitigation:** Confine clearing to essential exploration sites only; Fence off area rehabilitate cleared areas; train workers in biodiversity awareness; adopt no-go zones for ecologically sensitive areas; Establish secure perimeter fencing around all active trenching and pitting areas.

The impact is assessed in **Table 13** below.

Table 13:Assessment of the impacts of exploration on biodiversity

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M/H: -4	M: -3	M: -6	M/H: 4	M: -52
Post mitigation	L/M: -2	L/M: -2	L/M: -4	L/M: 3	L: -24

7.3.3 Generation of Dust (Air Quality)

Dust emanating from site access routes when transporting exploration equipment and supply to and from the site may compromise the air quality in the area. Vehicular movements from heavy vehicles such as trucks would potentially create dust, even if it is not anticipated to be High. Additionally, activities carried out as part of the exploration works such as drilling would contribute to the dust levels in the air. The medium significance of this impact can be reduced to a low significance rating by properly implementing mitigation measures.

- **Impact:** Dust from drilling, vehicle movement, and trenching.

- **Mitigation:** Water spraying during drilling; limit speed of vehicles; cover transported materials, damping the road to avoid dust were feasible.

The impact is assessed in **Table 14** below.

Table 14: Assessment of the impacts of exploration on air quality

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M/H: -4	M: -3	M/L: -4	M/H: 4	M: -44
Post mitigation	L - 2	L – 2	L- 2	L/M: 2	L - 12

7.3.4 Water Resources Use

Water resources are impacted by project developments/activities in two ways - through pollution (water quality) or over-abstraction (water quantity) or at times both.

The abstraction of more water than can be replenished from low groundwater potential areas would negatively affect the local communities (communal and livestock) that depend on the same low potential groundwater resource (aquifer).

The impact of the project activities on the resources would be dependent on the water volumes required by each project activity. Exploration activities use a lot of water, mainly for drilling. However, this depends on the type of drilling methods employed (diamond drilling is more water-consuming compared to drilling methods such as reverse circulation for instance) and the type of mineral being explored.

The drilling method to be employed for this project's exploration activities is Diamond core drilling. Given the low to medium groundwater potential of some project site areas, the Proponent may consider carting some of the water volumes from outside the area and stored in industry-standard water reservoirs/tanks on site. The exact amounts of water required for proposed operations would be dependent on the duration of the exploration works and the number of exploration boreholes required to make a reliable interpretation of the commodities explored. The exploration period is temporally limited, therefore, the impact will only last for the duration of the exploration activities and cease upon their completion.

Without the implementation of any mitigation measures, the impact can be rated as medium, but upon effective implementation of the recommended measures, the impact significance would be reduced to low as presented in **Table 15** below.

- **Impact:** Pressure on limited groundwater; potential contamination from drilling fluids.

- **Mitigation:** Obtain water permits; monitor borehole abstraction; prevent leaks/spills; install drip trays at fuel storage; use biodegradable drilling fluids; Implement a multi-source water strategy.

Table 15: Assessment of the project impact on water resource use and availability

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M/H - 4	M/H - 4	M - 6	M/H - 4	M - 56
Post mitigation	L/M - 2	L/M - 2	L/M - 4	M - 3	L - 24

7.3.5 Soil and Water Resources Pollution

The proposed exploration activities are associated with a variety of potential pollution sources (i.e., lubricants, fuel, and wastewater) that may contaminate/pollute soils, and eventually, surface and groundwater. The anticipated potential source of pollution to water resources from the project activities would be hydrocarbons (oil) from project vehicles, machinery, and equipment as well as potential wastewater/effluent from exploration-related activities.

The spills (depending on volumes spilled on soil) from machinery, vehicles, and equipment could infiltrate into the ground and pollute the fractured or faulted aquifers on site, and with time reach further groundwater systems in the area. However, it should be noted that the scale and extent/footprint of the activities where potential sources of pollution will be handled is relatively small. Therefore, the impact will be moderately low.

Pre-implementation of the mitigation measures, the impact significance is medium to high and upon implementation, the significance will be reduced to moderate.

- **Impact:** Fuel/oil leaks from machinery, improper waste disposal.
- **Mitigation:** Use spill kits; store fuel in bunded tanks; separate waste streams; dispose of waste at licensed facilities.

The impact is assessed in **Table 16** below.

Table 16: Assessment of the project impact on soils and water resources (pollution)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	H – 5	M/H - 3	M - 6	L/M - 4	M - 56

Post mitigation	L/M – 2	L/M - 2	L/M - 4	M - 3	L - 24

7.3.6 Waste Generation

During the prospecting and exploration program, domestic and general waste is produced on-site. If the generated waste is not disposed of responsibly, land pollution may occur on the EPL or around the sites. The EPL is in an area of moderate sensitivity to pollution. Improper handling, storage, and disposal of hydrocarbon products and hazardous materials at the site may lead to soil and groundwater contamination, in case of spills and leakages. Therefore, the exploration program needs to have appropriate waste management for the site. To prevent these issues, any hazardous waste that may have an impact on animals, vegetation, water resources, and the general environment should be handled cautiously. Without any mitigation measures, the general impact of waste generation has a medium significance. The impact will reduce to low significance, upon implementing the mitigation measures.

- **Impact:** Domestic and hazardous waste accumulation on site.
- **Mitigation:** Provide labelled bins; regular collection and transport to authorized landfill; no onsite burning or burying of waste.

The assessment of this impact is given in **Table 17** below.

Table 17: Assessment of waste generation impact

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M – 3	M - 3	L/M - 4	M - 5	M – 50
Post mitigation	L – 1	L - 1	L - 2	M - 3	L - 12

7.3.7 Occupational Health and Safety Risks

Project personnel (workers) involved in the exploration activities may be exposed to health and safety risks. These may result from accidental injury, owing to either minor (i.e., superficial physical injury) or major (i.e. involving heavy machinery or vehicles) accidents. The site safety of all personnel is the Proponent's responsibility and should be adhered to as per the requirements of the Labour Act (No. 11 of 2007) and the Public Health Act (No. 36 of 1919). The heavy vehicle, equipment, and fuel storage area should be properly secured to prevent any harm or injury to the project workers or local animals.

The use of heavy equipment, especially during drilling, and the presence of hydrocarbons on sites may result in accidental fire outbreaks, which could pose a safety risk to the project

personnel, equipment, and vehicles. It may also lead to widespread veld fires if an outbreak is not contained and if machinery and equipment are not properly stored, the safety risk may be a concern for project workers and residents.

The impact is probable and has a medium significance rating. However, with adequate mitigation measures, the impact rating will be reduced to low.

- **Impact:** Injuries from drilling operations, dust inhalation, noise exposure.
- **Mitigation:** Enforce PPE usage; provide first aid kits; implement health & safety induction; limit working hours.

This impact is assessed in **Table 18** below and mitigation measures are provided.

Table 18: Assessment of the impacts of exploration on health and safety

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M - 3	M/H - 8	M/H - 4	M – 56
Post mitigation	L/M - 2	L/M - 2	L/M - 4	L/M - 2	L - 16

7.3.8 Vehicular Traffic Use and Safety

The EPL is accessible via the D3724 route from Epupa, Kunene Region. These are some of the main transportation routes for all vehicular movement in the area and provide access to the EPL and connect the project area to other towns. Traffic volume will therefore increase on these district roads during exploration as the project would need delivery of supplies and services on site.

Depending on the project needs, trucks, medium-sized vehicles, and small vehicles will frequent the area to and from exploration sites on the EPL. This would potentially increase slow-moving heavy vehicular traffic along these roads and add additional pressure on the roads. However, transportation of materials and equipment is expected to occur on a limited schedule and only for the duration of the project. Therefore, the risk is anticipated to be short-term, not frequent, and therefore of medium significance. Before mitigation, the impact can be rated medium and with the implementation of mitigation measures, the significance will be low as assessed in **Table 19** below.

- **Impact:** Increased heavy vehicle movement causing road damage and safety risks.
- **Mitigation:** Use existing roads where possible; enforce speed limits; maintain vehicles; consult local authorities on road use.

Table 19: Assessment of the impacts of exploration on-road use (vehicular traffic)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M/H – 4	M - 3	L/M - 4	M/H - 5	M - 55
Post mitigation	L/M – 2	L/M - 2	L - 2	L/M - 2	L - 12

7.3.9 Noise and vibrations

Prospecting and exploration work (especially drilling) may be a nuisance to surrounding communities due to the noise produced by the activity. Excess noise and vibrations can be a health risk to workers on site. The exploration equipment used for drilling on site is of medium size and the noise level is bound to be limited to the site only, therefore, the impact likelihood is minimal. Without any mitigation, the impact is rated as of medium significance. To change the impact significance from the pre-mitigation significance to a low rating, mitigation measures should be implemented.

- **Impact:** Noise from drilling machinery disturbing communities and wildlife.
- **Mitigation:** Daytime operations only; fit silencers on equipment; maintain buffer zones around settlements.

This impact is assessed in **Table 20** below.

Table 20: Assessment of the impacts of noise and vibrations from exploration

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	L/M - 2	L/M - 2	M - 6	M/H - 4	M – 40
Post mitigation	L - 1	L/M - 2	L - 2	L/M -2	L - 10

7.3.10 Disturbance to Archaeological and Heritage Resources

The specialist archaeological assessment conducted indicates that Kunene Region is sensitive and contains significant archaeological sites, and there is a possibility of discovering new archaeological materials in the proposed project area. If such materials are found the areas must be mapped out and coordinates taken to establish “No-Go-Areas”, due to their sensitivity and then documented. They may be protected either by fencing them off or demarcation for preservation purposes, or excluding them from any development, i.e. no exploration activities should be conducted near these recorded areas through the establishment of buffer zones.

This impact can be rated as medium significance if there are no mitigation measures in place. Upon implementation of the necessary measures, the impact significance will be reduced to a lower rating.

- **Impact:** Possible destruction of graves, stone tools, or cultural sites.
- **Mitigation:** Conduct heritage surveys before works; enforce chance find procedures; demarcate no-go zones for discovered site, graves and burial sites should be fenced off.

The impact is assessed in **Table 21**.

Table 21: Assessment of the impacts of exploration on archaeological & heritage resources

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M – 3	M/H - 4	M - 6	M - 3	M – 39
Post mitigation	L/M – 2	L/M - 2	L - 2	L/M - 2	L - 12

7.3.11 Impact on Local Roads/Routes

Exploration projects are usually associated with the movements of heavy trucks and equipment or machinery that use local roads. Heavy vehicles traveling on local roads exert pressure on the roads and may make the roads difficult to use. This will be a concern if maintenance and care is not taken during the exploration phase. The impact would be short-term (during exploration only) and therefore manageable.

Without any management and or mitigation measures, the impact can be rated as medium and to reduce this rating to low, the measures will need to be effectively implemented.

- **Impact:** Increased frequency of heavy vehicle traffic, leading to accelerated road deterioration (e.g., potholes, rutting, and surface wear).
- **Mitigation:** Implement a scheduled, regular road maintenance program; Enforce and clearly signpost reduced speed limits for heavy vehicles.

An assessment of this impact is presented in **Table 22**.

Table 22: Assessment of impact of roads

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M/H – 4	M - 3	M - 6	M - 3	M – 39
Post mitigation	L/M – 2	L - 1	M/L - 4	M/L -2	L - 14

7.3.12 Social Nuisance: Local Property intrusion and Disturbance/Damage

The presence of some non-resident workers may lead to social annoyance to the local community. This could particularly be a concern if they enter or damage local private property. The private properties of the locals may include houses, fences, vegetation, livestock, wildlife, or any properties of economic or cultural value to land users. The damage or disturbance to property may not only be private but local public property. The unpermitted and unauthorized entry to private property may cause crashes between the affected property (land) owners and the Proponent.

The impact is rated as of medium significance. However, upon mitigation (post-mitigation), the significance will change from a medium to a low rating.

- **Impact:** Theft, property damage, community-worker tensions.
- **Mitigation:** Engage community leaders; enforce code of conduct; provide grievance redress mechanism, prioritize local employment.

The impact is assessed below **(Table 23)**.

Table 23: Assessment of the social impact of community property damage or disturbance

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M - 3	M - 4	M - 3	M – 30
Post mitigation	L/M - 2	L/M - 2	L - 2	M/L -2	L - 12

7.4 Cumulative Impacts Associated with Proposed Exploration

According to the International Finance Corporation (2013), cumulative impacts are defined as “impacts that result from the successive, incremental, and/or combined effects of an action, project, or activity (collectively referred to in this document as “developments”) when added to other existing, planned, and/or reasonably anticipated future impacts”.

Like many other exploration projects, some cumulative impacts to which the proposed project and associated activities potentially contribute are the following:

- **Impact on road infrastructure:** The proposed exploration activity contributes cumulatively to various activities such as farming activities and traveling associated with tourism and local daily routines. The contribution of the proposed project to this cumulative impact is however not considered significant, given the short duration, and spatial extent of the intended mineral exploration activities.

- **Use of water**: While the project's overall water footprint is considered minor, adopting water conservation and a diversified sourcing strategy is essential to minimize local impact and protect the limited groundwater resource.

Exploration within the affected portions of the Epupa and Okanguati conservancy may compound existing pressures on grazing lands, water scarcity, and conservation initiatives. Cumulative effects may also arise from the interaction of exploration activities with tourism and wildlife corridors. To mitigate cumulative impacts:

- Limit exploration to designated blocks within the EPL.
- Coordinate with conservancy committees to align schedules and land use.
- Promote joint monitoring programs (Proponent + Conservancy).

8 RECOMMENDATIONS AND CONCLUSION

8.1 Recommendations

The potential positive and negative impacts of the proposed exploration activities on EPL No. 10582 were identified and assessed and appropriate management and mitigation measures (to negative impacts) were made thereof for implementation by the Proponent, their contractors, and project-related employees.

Mitigation measures for identified issues have been provided in the Environmental Management Plan, for the Proponent to avoid and/or minimize their significant impacts on the environmental and social components. Most of the potential impacts were found to be of medium-rating significance. With effective implementation of the recommended management and mitigation measures, a reduced rating in the significance of adverse impacts is expected from Medium 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). The monitoring of implementation will not only be done to maintain a low rating but also to 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.

The Environmental Consultant is confident that the potential negative impacts associated with the proposed project activities can be managed and mitigated by the effective implementation of the recommended management and mitigation measures and with more effort and commitment put into monitoring the implementation of these measures.

Based on the findings of the Environmental Scoping Assessment for EPL 10582, the following recommendations are proposed:

- Environmental Clearance Certificate (ECC): It is recommended that the Ministry of Environment, Forestry and Tourism (MEFT) grants the ECC for exploration activities, subject to strict adherence to the Environmental Management Act (2007) and its regulations.
- Implementation of the Environmental Management Plan (EMP): The proponent must implement the EMP as an operational guide for managing all identified impacts. This should include regular monitoring, reporting, and compliance audits.
- Water Resource Management: Due to the acute water scarcity in the Kunene Region, securing stringent water-use permits is mandatory. To ensure sustainable resource management, all groundwater abstraction must be rigorously monitored, and supplementary sources (such as hauled water) must be actively integrated to alleviate pressure on local aquifers
- Community Engagement: Continuous stakeholder and community engagement with Local traditional authority and the affected Conservancies is essential. Clear communication channels should be maintained to address grievances, promote transparency.
- Biodiversity Conservation: Exploration should avoid ecologically sensitive zones, wildlife corridors, and areas of high biodiversity importance. Rehabilitation of disturbed areas must be prioritized to restore natural vegetation.
- Health and Safety: All exploration activities should adhere to occupational health and safety standards. Training, provision of PPE, and emergency preparedness must be mandatory for all employees and contractors.
- Cultural and Heritage Preservation: Heritage chance find procedures must be strictly implemented. Any cultural or archaeological resources encountered must be reported immediately to the National Heritage Council.
- Cumulative Impact Monitoring: The proponent must collaborate with the conservancy management to jointly monitor and assess cumulative impacts on grazing resources, wildlife populations, and community livelihoods. This cooperative approach is essential for regulatory compliance and for building trust with affected communities.

8.2 Conclusion

It is crucial for the proponents and their contractors to effectively implement the recommended management and mitigation measures, to protect the biophysical and social environment throughout the project duration. This would be done to promote environmental sustainability

while ensuring a smooth and harmonious existence and purpose of the project activities in the community and environment at large. It is also to ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed accordingly. The Environmental Scoping Assessment has identified both potential negative and positive impacts associated with the proposed prospecting and exploration activities under EPL 10582. While risks such as land degradation, biodiversity disturbance, water use, and social conflicts are acknowledged, these can be effectively mitigated through strict adherence to the EMP, regulatory compliance, and proactive stakeholder engagement.

On the other hand, the project presents significant opportunities for local socio-economic upliftment through employment, procurement, and skills development. If responsibly managed, the project can align with Namibia's sustainable development goals, Vision 2030, and the objectives of the Conservancies. It is recommended that the ECC be granted for EPL 10582, subject to compliance with the mitigation measures outlined in this report and the accompanying EMP.

9 REFERENCES

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