ENVIRONMENTAL MANAGEMENT PLAN REPORT:

FOR THE PROPOSED MINERAL EXPLORATION OF BASE AND RARE METALS, DIMENSION STONE, INDUSTRIAL MINERALS, AND PRECIOUS METALS ON EXCLUSIVE PROSPECTING LICENSE NO.9836

OTAVI DISTRICT, OTJOZONDJUPA REGION – NAMIBIA

ECC APPLICATION NO.: APP No. 250207005313

NOVEMBER 2025

COMPILED BY

SS CONSULTANTS

info@ssconsultants.com

DISCLAIMER

The author of this report has neither shares nor economic interest in EPL-9836. The report therefore is written without any conflict of interest. This is an Environmental Scoping Assessment (ESA) report, and the consultant also undertook field-based evaluation. It contains certain forward-looking statements which have been based solely on available literature as well as field data. SS Consultants will not be held responsible for any omissions and inconsistencies that may result from information that was not available at the time this document was prepared and submitted for evaluation. The authors' current expectations about future proceedings are subject to several risks and uncertainties beyond his/her control. Therefore, the author does not give assurance that such statements will prove to be accurate and future events could differ materially from those anticipated in such statements. Due care and attention have been taken in the preparation of this report. However, the information contained in this report (other than as specifically stated) has not been independently verified nor has it been audited. Accordingly, the company does not warrant or represent that the information contained in this report is accurate or complete.

AUTHORSHIP

Author	**Uaanao Katjinjaa**	**Proponent**	**Namasiku Bainga**
Qualifications and Role	– **BBA (Entrepreneurship)** – **MSc. (Integrated Environmental Management and Sustainable Development)** – **Environmental Assessment Practitioner (SS Consultant CC)**	**Application Number**	**250207005313**
Email address	**UKatjinjaa@ssconsultants.co**	**Postal Address**	**P.O. Box 2670, Katima Mulilo, Namibia**
Signature			

TABLE OF CONTENTS

1 INTRODUCTION AND PROJECT OVERVIEW 8

2 PURPOSE OF DOCUMENT 9

2.1 Operation and Maintenance 10

2.2 Environmental Monitoring Requirements 10

2.3 Decommissioning and Rehabilitation 11

2.4 Appointed Environmental Assessment Practitioner 11

3 PROJECT ACTIVITIES 11

3.1 Access and Transport 13

3.2 Resources (Water and Electricity) 14

3.3 Accommodation and Supporting Infrastructure 14

4 ENVIRONMENTAL ASSESSMENT LEGAL REQUIREMENTS 14

5 SUMMARY OF THE RECEIVING ENVIRONMENT & RISK ASSESSMENT 17

5.1 Geology 18

5.2 Location 19

5.3 Land Use 20

5.4 Topography 20

5.5 Climate 21

5.6 Biodiversity (Flora & Fauna) 21

5.6.1 Flora 22

5.6.2 Fauna 22

5.6.3 Ecological Sensitivities 24

5.7 Mitigation Measures for Flora & Fauna 24

5.8 Socio-Economic Environment 28

6 ENVIRONMENTAL MANAGEMENT PRINCIPLES 29

7 MANAGEMENT OF KEY POTENTIAL ENVIRONMENTAL IMPACTS 29

7.1 Roles and Responsibilities for Environmental Management 29

7.1.1 Communication Between Parties 29

c) Management of Stakeholder Queries and Complaints 31

d) Ongoing Communication During Exploration 31

e) Integration of Stakeholder Input 31

7.1.2 The Exploration Operating Company (Proponent) 32
7.1.3 Site Managers 32
7.1.4 Environmental Control Officer (ECO) 33
7.1.5 Contractors 33
8 DETAILED ENVIRONMENTAL MANAGEMENT PROCEDURES 34
8.1 Pre-Operational Planning and Land Access 34
8.2 Access, Track Management and Erosion Control 34
8.3 Biodiversity and Flora Conservation 35
8.4 Waste Management 35
8.5 Pollution Prevention and Hazardous Substances Management 35
8.6 Water Resource Protection 36
8.7 Air Quality, Dust and Noise Management 36
8.8 Heritage and Archaeological Resources Protection 36
8.8.1 Impact Assessment of Archaeological and Heritage Resources 36
8.8.2 Mitigation Measures and Recommendations 37
9 ENVIRONMENTAL MANAGEMENT PRINCIPLES 39
10 ENVIRONMENTAL SPECIFICATIONS 39
10.1 Compliance with Environmental Specifications 40
10.2 Training and Awareness 40
10.3 Stakeholder Relations 40
10.4 Permits 40
10.5 Road Safety 40
10.6 Access Tracks 41
10.7 Conservation of Biodiversity 41
10.8 Wildlife Poaching 41
10.9 Soil Management and Erosion Control 41
10.10 Pollution Control 41
10.11 Air Pollution/Dust Emission 41
10.12 Noise Pollution 42
10.13 Waste Management 42
10.14 Hazardous Substances 42

10.15 Fire Prevention 42
10.16 Archaeological Sites 42
10.17 Health and Safety 42
10.18 Dust Management 42
10.19 Ingestion Prevention 43
10.20 Emergency Measures 43
10.21 Work Stoppage 43
10.22 Compliance Monitoring 43
11 DECOMMISSIONING, REHABILITATION AND CLOSURE PLAN 43
12 ENVIRONMENTAL IMPACTS, AND MITIGATION MEASURES 44
12.1 Core Elements of This Section 44
12.1.1 Identification of Potential Impacts 44
12.1.2 Risk-Based Impact Evaluation 45
12.2 Mitigation Measures Following the Hierarchy of Controls 46
12.3 Avoidance 46
12.4 Minimisation 46
12.5 Rehabilitation 46
12.6 Compensation / Offsetting 46
12.7 Clear and Actionable Management Commitments 47
12.8 Alignment With Roles and Responsibilities 47
12.9 Environmental Impacts, and Mitigation Measures 47
13 MONITORING PLAN 52
13.1 Project Readiness Monitoring 52
13.2 Environmental Quality Monitoring 52
13.3 EMP Compliance Monitoring 52
13.4 Operational Monitoring 52
13.5 INCIDENT REPORTING AND NON-COMPLIANCE PROTOCOL 53
14 ENVIRONMENTAL CODE OF CONDUCT 53
14.1 Site Closure and Rehabilitation 53
14.1.1 Site Closure and Rehabilitation Activities 54
15 RECOMMENDATIONS 55

16 CONCLUSION 56
17 REFERENCES 58

LIST OF FIGURES

Figure 1-1: Project area locality map. 9
Figure 5-1: Dolomite outcrops found within the license area 18
Figure 5-2 Locality map 19
Figure 5-3 Livestock in EPL area 20
Figure 5-4 Vegetation 22
Figure 5-5 Hartebeest 24

LIST OF TABLES

Table 4-1: Summary of Applicable Legislative and Policy Framework. 14
Table 5-1: Mitigation Measures for Flora & Fauna. 24
Table 8-1: Archaeological & Heritage Resources Mitigation. 38
Table 12-1: Environmental Impacts, and Mitigation Measures. 48

1 INTRODUCTION AND PROJECT OVERVIEW

The Environmental Management Plan (EMP) presented in this section demonstrates how the Proponent intends to manage all the exploration, possible mining and processing operations within the EPL area that will significantly impact on the receiving environment, or that may potentially be of high risk in the long-term. Therefore, this EMP is formulated as a mandatory condition of the Environmental Clearance Certificate (ECC) pursuant to Section 27 of the Environmental Management Act (No. 7 of 2007). This Environmental Management Plan (EMP) has been prepared for the proposed mineral exploration activities on Exclusive Prospecting License (EPL) 9836, held by Johannes Gideon Erika Sunday (hereafter referred to as the Proponent). It serves as the primary operational document for proactively identifying, assessing, and managing all environmental risks associated with mineral exploration activities on Exclusive Prospecting License (EPL) 9836. The EMP is a legally enforceable document, and any instance of non-compliance constitutes a direct breach of the ECC conditions, potentially resulting in enforcement action, suspension of activities, or revocation of the license. Furthermore, this plan is designed as a "live document" that will be periodically reviewed and updated in response to monitoring results, audit findings, and changes in the scope of exploration activities. It outlines all environmental management requirements, mitigation strategies, monitoring obligations, responsibilities, and compliance procedures to ensure that exploration activities are undertaken in an environmentally responsible and sustainable manner.

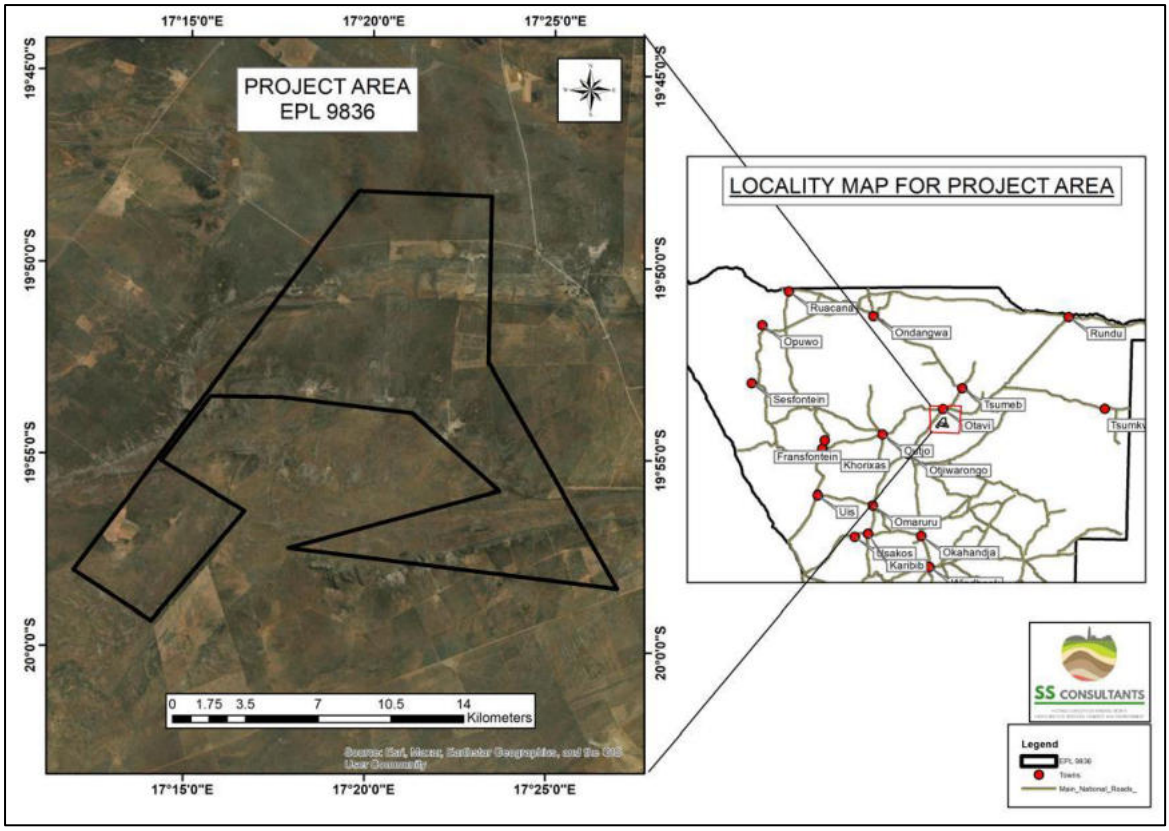

Figure 1-1: Project area locality map.

2 PURPOSE OF DOCUMENT

This document is prepared as part of the Environmental Scoping and Impact Assessment for Proposed Exploration which was conducted in terms of the Environmental Management Act, 2007 (Act No 7 of 2007). This Environmental Management Plan is a live document that has been prepared based on the environmental effects identified in Environmental Scoping Assessment and provides operational environmental management instructions for exploration on EPL 9836. It must be read in conjunction with the ESA Report.

This Environmental Management Plan (EMP) provides a comprehensive framework for managing all environmental aspects related to mineral exploration activities on EPL 9836. The purpose of this EMP is to ensure:

- Compliance with national environmental legislation.
- Identification, mitigation, and monitoring of environmental impacts.
- Assignment of clear environmental management responsibilities.

- Protection of ecological, social, cultural, and economic resources.
- Rehabilitation of disturbed areas in accordance with Namibian best practices

2.1 Operation and Maintenance

The effective operation and ongoing maintenance of exploration activities are essential to ensure environmental protection and safe working conditions. Key requirements include:

- Regular servicing and inspection of vehicles and equipment to minimise emissions, reduce the risk of mechanical failure, and prevent accidental pollution.
- Carrying out all exploration activities—including mapping, geochemical sampling, trenching, pitting, drilling, and geophysical surveys—in accordance with approved environmental procedures.
- Keeping drill pads, access routes, fuel handling areas, and sample storage sites in good condition to avoid soil contamination, vegetation damage, or unnecessary disturbance.

2.2 Environmental Monitoring Requirements

Continuous environmental monitoring will take place throughout the duration of the project to ensure responsible operations. Monitoring activities will help to:

- Verify compliance with the requirements set out in this EMP.
- Assess the condition of vegetation, soils, and groundwater in and around exploration sites.
- Evaluate the effectiveness of waste handling and disposal practices.
- Identify any emerging contamination risks early and allow prompt corrective action.
- Maintain safe and well-managed access routes to and from site.

2.3 Decommissioning and Rehabilitation

Once exploration work in a particular area has been completed, the site must be rehabilitated to meet national and industry standards. Decommissioning activities will include:

- Removal of all temporary structures and installations, including storage units and any other facilities erected for exploration.
- Backfilling and reshaping of all excavations, such as pits and trenches, to restore a safe and stable landform.
- Ripping, loosening, and recontouring drill pads to promote natural regeneration.
- Clearing all waste materials from the site and transporting them to authorised disposal facilities.
- Conducting a final environmental inspection to confirm that rehabilitation work meets the requirements of the National Policy on Prospecting and Mining, MEFT guidelines, and recognised best practice standards.

2.4 Appointed Environmental Assessment Practitioner

- To meet the obligations of the Environmental Management Act (EMA) and the 2012 EIA Regulations, the Proponent has appointed SS Consultants CC as the independent Environmental Assessment Practitioner (EAP). SS Consultants is responsible for managing the EIA process on behalf of the Proponent and ensuring that all regulatory requirements are satisfied.

3 PROJECT ACTIVITIES

The proposed exploration activities will be carried out in a phased approach, starting with non-invasive methods such as remote sensing, geological mapping, and geophysical surveys. If sufficient anomalies are detected, invasive methods such as trenching, pitting, and drilling will be implemented. The Proponent intends to explore for Dimension Stone, Base and Rare Metals, Industrial Minerals, and Precious Metals.

The project area is well supported by existing national and district infrastructure, including the B1 road, farm access tracks, power lines, telecommunication services, and nearby towns such as Otjiwarongo and Otavi.

- Phase 1: Desktop Review and Data Interpretation

  This initial phase involves the review and interpretation of all available geological, geophysical, and geochemical data relevant to the EPL area.

  Key tasks include:

  - Reviewing existing research, historical reports, and previous exploration records;
  - Purchasing high-resolution geological and geophysical datasets from Government repositories;
  - Interpreting regional datasets to identify potential prospective zones for further assessment.

This phase is non-invasive and aims to determine whether the license area presents viable preliminary targets for follow-up work.

- Phase 2: Reconnaissance Assessment

  If Phase 1 identifies promising targets, the exploration progresses to reconnaissance fieldwork.

  This stage involves:

  - Broad-scale field verification of interpreted targets;
  - Regional geological mapping;
  - Surface sampling (e.g., rock chip or soil sampling);
  - Ground truthing of anomalies identified during the desktop study.

The main purpose of this stage is to validate regional targets and narrow down specific areas that warrant detailed investigation.

- Phase 3: Initial Field-Based Exploration Activities

  Where reconnaissance results are positive, initial field-based activities are undertaken.

This may include:

- Widely distributed geological mapping;
- Systematic surface sampling;
- Ground geophysical surveys;
- Broadly spaced trenching or shallow drilling to test subsurface continuity and geologic structures.

Activities at this phase remain exploratory and are limited to assessing the feasibility of identified targets. If results demonstrate that targets are not viable, exploration may cease and the license may be relinquished.

- Phase 4: Detailed Localised Exploration Activities

  Should initial exploration confirm mineral potential, more focused and detailed field-based operations will be conducted.

  These may include:

  - Site-specific detailed geological mapping;
  - Trenching and bulk sampling;
  - Detailed geophysical surveys;
  - Targeted drilling programmes aimed at delineating mineralization.
  - Laboratory testing, metallurgical analysis, and preliminary resource estimation.

Data generated from this phase is used to compile a pre-feasibility study. If pre-feasibility results are favourable, the project will proceed to a full feasibility study, which will include intensive drilling, additional bulk sampling, and test-mining where relevant.

3.1 Access and Transport

Activities include:

- Use of the B1 national road and existing farm tracks.
- Minor vegetation clearing to access sampling/trenching/drill sites (where unavoidable).
- Movement of 4x4 vehicles, light trucks, and drill rigs.

A Traffic Management Plan must be adhered to.

3.2 Resources (Water and Electricity)

- Water required for drilling will be sourced from existing boreholes upon landowner consent, or from bowsers transported from Otjiwarongo/Otavi.
- Power will be supplied via generators or vehicle systems.

3.3 Accommodation and Supporting Infrastructure

Personnel will be:

- Housed in nearby towns (Otavi or Otjiwarongo); or
- **Temporarily accommodated onsite (if agreed with landowners)**.

Supporting infrastructure may include:

- Temporary storage containers
- Vehicle service areas
- Sample storage areas
- Temporary ablution facilities (VIP or chemical toilets)

4 ENVIRONMENTAL ASSESSMENT LEGAL REQUIREMENTS

This Environmental Management Plan (EMP) has been developed to ensure full compliance with the comprehensive legal and regulatory framework governing mineral exploration and environmental protection in Namibia. The table below outlines the key legislative and policy instruments applicable to the proposed exploration activities on EPL 9836, detailing their specific requirements and the direct implications for project implementation.

Table 4-1: Summary of Applicable Legislative and Policy Framework.

Legislation/Policy/ Guideline	Key Provisions & Requirements	Specific Implications
Environmental Management Act (No.	• The overarching framework for environmental	• This EMP is a direct legal requirement of the ECC.

7 of 2007) & **EIA Regulations (2012)**	governance. • Mandates an EIA for listed activities (Section 27). • Requires the development of an EMP as a condition for an ECC. • Establishes principles of public participation, pollution prevention, and the precautionary approach.	• All project activities must adhere to the principles and specific measures outlined in this plan. • Non-compliance is a prosecutable offence under the Act.
Minerals (Prospecting and Mining) Act (No. 33 of 1992)	• Governs the granting and exercise of mineral rights. • Section 52 mandates a written land access agreement with the landowner before any prospecting can commence. • Provides for compensation for damages and loss of land use.	• The Proponent must secure and maintain valid Land Access Agreements with all relevant landowners/occupiers. • Copies of all agreements must be kept on site and made available for inspection.
Water Resources Management Act (No. 11 of 2013)	• Provides for the protection, management, use, and development of water resources. • Prohibits the pollution of water resources (Section 68). • Requires a water abstraction license for the withdrawal of water from any source.	• A Water Abstraction License from the Ministry of Agriculture, Water and Land Reform (MAWLR) is required prior to any groundwater abstraction for drilling. • Strict pollution control measures (e.g., bunding, spill kits) are mandatory to prevent contamination of surface and

		groundwater.
Forestry Act (No. 12 of 2001)	• Protects forest resources and specific tree species. • Prohibits the cutting, disturbance, or destruction of any tree or forest product within 100 meters of a watercourse or on any ground not classified as a surveyed land parcel, except under a permit.	• A permit from the Directorate of Forestry (MEFT) is required before clearing any protected vegetation, especially near drainage lines. • A pre-clearance survey to identify protected species is mandatory.
National Heritage Act (No. 27 of 2004)	• Provides for the protection and conservation of places and objects of heritage significance. • Requires a permit for any disturbance of a heritage site. • Mandates that any chance discovery of archaeological or palaeontological material must be reported immediately to the National Heritage Council.	• The "Chance Finds Procedure" outlined in Section 5.8 of this EMP is mandatory. • Work must cease immediately upon discovery of any potential heritage resource, and the National Heritage Council must be informed.
Labour Act (No. 11 of 2007) & **Health and Safety Regulations**	• Stipulates employer responsibilities for providing a safe working environment. • Requires risk assessments, safe work procedures, and the provision of Personal Protective Equipment (PPE).	• A site-specific Health and Safety Plan must be developed and implemented. • All personnel must undergo safety induction and be provided with appropriate PPE. • First aid facilities and trained

	• Governs terms of employment and worker welfare.	personnel must be available on site at all times.
Atmospheric Pollution Prevention Ordinance (No. 11 of 1976)	• Aims to prevent air pollution and nuisances. • Provides for the control of emissions of smoke, dust, and fumes.	• Dust suppression measures (e.g., water spraying, speed limits) are legally required to minimize particulate emissions. • Machinery must be maintained to prevent excessive exhaust emissions.
Soil Conservation Act (No. 76 of 1969)	• Aims to prevent and control soil erosion. • Empowers the Minister to declare directives for soil conservation.	• Erosion control measures, such as minimizing land disturbance, contouring, and revegetation, are mandatory components of this EMP, especially given the erosive soils in the project area.

This EMP is designed to operationalize the requirements of these instruments into clear, actionable management and mitigation measures. Compliance with this plan will therefore ensure the Proponent's adherence to the broader legal framework of Namibia.

5 SUMMARY OF THE RECEIVING ENVIRONMENT & RISK ASSESSMENT

EPL 9836 is located in a rural, semi-arid agricultural landscape northwest of Otjiwarongo. The receiving environment is characterized by commercial livestock farming, gently undulating terrain, and vegetation typical of the Thornbush Savanna biome. Climate conditions are semi-arid with seasonal rainfall and high evaporation. Geologically, the EPL is situated within the Damara Belt, hosting dolomite, limestone, and metasedimentary formations prospective for base metals, industrial minerals, and dimension stone. The flora consists of common savanna species with occasional protected trees, while fauna includes a range of ungulates, small mammals, and reptiles. Surface water is absent, with groundwater serving as the primary water source. No known heritage sites occur within the EPL.

5.1 Geology

EPL 9836 lies within the northern portion of the Damara Orogenic Belt, one of Namibia's major mineralized geological provinces. Local lithology is dominated by meta-sedimentary rocks of the Swakop Group, including schists (biotite, garnet) and significant marble bands of the Karibib Formation. The area is prospective for structurally controlled gold and other mineral deposits**.**

Figure 5-1: Dolomite outcrops found within the license area .

Dominant geological units include:

- Dolomites and limestones of the Otavi Group
- Meta-sedimentary rocks
- Calcrete layers and shallow sandy soils
- Localized quartz veins and carbonate-hosted mineral targets

The geology is highly prospective for:

- Base and rare metals

- Industrial minerals
- Precious metals
- Dimension stone

The geology supports exploration techniques such as:

- Remote sensing
- Geological mapping
- Geochemical sampling
- Geophysical surveys
- Drilling

5.2 Location

- EPL 9836 is located 10 km northwest of Otjiwarongo, in the Otjozondjupa Region.
- Access to the licence area is via the B1 national road.
- The EPL covers an area of 19,982.3598 hectares.

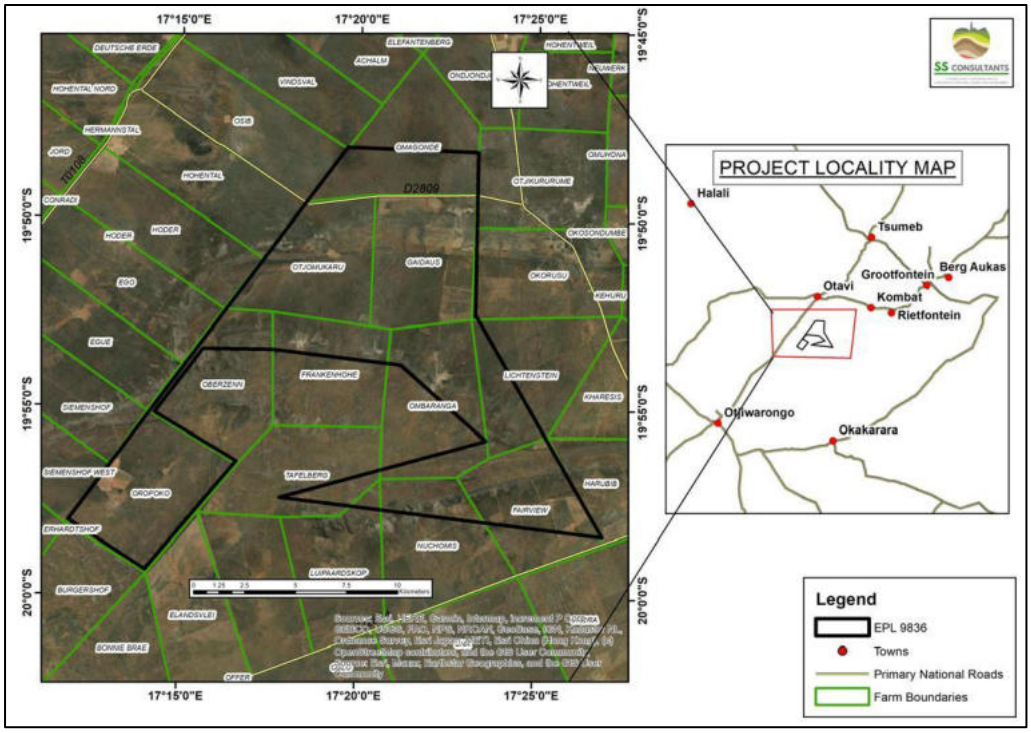

Figure 5-2 Locality map

5.3 Land Use

The area consists predominantly of:

- Commercial livestock farming (cattle, goats)
- Scattered farmhouses and agricultural infrastructure
- Internal farm roads and fenced paddocks
- Occasional small-scale cultivation activities

Figure 5-3 Livestock in EPL area

The EPL is accessed through the B1 national road and a network of farm tracks. There are no towns, settlements, schools, or communal lands within the EPL boundaries.

The area is well serviced by:

- Existing water supply points
- Power lines
- National and district roads
- Telecommunication infrastructure

5.4 Topography

- The topography is characterized by:

- Gently undulating plains
- Isolated rocky outcrops
- Shallow depressions that collect water during rainfall
- Minor dolomite ridges typical of the Otavi mountain land transition zone
- Slopes are generally low, making the area accessible for exploration with low terrain constraints.
- The area is easily accessible with minimal need for new infrastructure developments.

5.5 Climate

The EPL is located in a semi-arid climatic zone, typical of central Namibia.

- Key climatic characteristics include:
- Rainfall: ± 400–500 mm/year (November–April)

Temperatures:

- Summer daytime temperatures exceed 30–35°C
- Winter nights drop to 5°C or below
- Evaporation: High, exceeding annual rainfall
- Wind: Moderate; dusty conditions may occur during the dry season
- These climatic conditions influence vegetation, water availability, and dust generation potential.
- Seasonal rainfall
- Typically dry, windy periods that may increase dust dispersion

5.6 Biodiversity (Flora & Fauna)

The EPL falls within the Thornbush Savanna Biome, a common ecological system in Otjozondjupa.

5.6.1 Flora

Dominant vegetation types include:

- Senegalia mellifera (Blackthorn)
- Vachellia tortilis (Umbrella thorn)
- Grasses such as *Stipagrostis* spp.

Scattered protected species may occur, including:

- Aloe
- Boscia albitrunca (Shepherd's tree)

Vegetation density varies from moderately open farmland to areas of thicker bush encroachment.

Figure 5-4 Vegetation

5.6.2 Fauna

Common fauna in the area includes:

- Kudu
- Oryx
- Warthog
- Springbok
- Hartebeest
- Jackal
- Small carnivores (e.g., genet, mongoose)
- Reptiles (various lizards, snakes)
- Birds typical of the savanna biome (hornbills, raptors, korhaans)

The area does not contain any known breeding colonies, migration corridors, or protected wildlife sanctuaries, based on the BID.

Figure 5-5 Hartebeest

5.6.3 Ecological Sensitivities

- Protected species present: including *Aloe littoralis*.
- Thornbush thickets provide habitat for birds and small mammals.
- Rocky slopes and shallow soils support unique, slow-growing flora.
- Disturbance to vegetation must be minimised, especially in areas with succulents and protected trees

5.7 Mitigation Measures for Flora & Fauna

Table 5-1: Mitigation Measures for Flora & Fauna.

Environmental Aspect	Potential Impact	Mitigation Measures	Responsible Party
Disturbance to	Damage, removal,	- Identify and mark	Environmental

Protected Plants (e.g., Aloe littoralis)	or destruction of protected aloe species and other sensitive flora	protected plants before work begins. - Establish 10–20 m no-go buffer around *Aloe littoralis* and other protected species. - Avoid clearing on rocky outcrops where aloes are concentrated. - If removal is unavoidable, obtain a permit from Forestry (MAWLR) before any disturbance. - Train workers to recognise protected species.	Control Officer (ECO) / Site Manager / Contractor
Vegetation Clearing (General)	Loss of woodland, shrubs, and thornbush thickets	- Limit clearing to the minimal footprint required for access and drilling. - Use existing tracks rather than creating new ones. - Clearly demarcate work areas. - Avoid clearing in sensitive zones (steep slopes, rocky areas, shallow soils).	Contractor / Proponent
Habitat Loss & Fragmentation	Disruption of habitats used by mammals, birds, reptiles	- Plan access routes to avoid dense thickets and drainage lines. - Conduct work in phases to minimise large disturbances.	ECO / Site Manager

		- Implement progressive rehabilitation after completing work in each area. - Maintain natural vegetation buffers around active exploration areas.	
Soil Disturbance (Affects Flora Regeneration & Fauna Habitat)	Reduced vegetation recovery; soil erosion; disturbance to burrowing animals	- Strip and stockpile topsoil separately for reuse. - Avoid working during/after heavy rains. - Backfill pits, trenches, and drill sumps immediately after use. - Stabilise loose soils using vegetation or brush packs.	Contractor
Wildlife Disturbance	Stress, displacement, or injury to fauna	- Restrict operations to daylight hours (07h00–18h00). - Prohibit chasing, feeding, or handling wildlife. - Minimise noise by maintaining equipment. - Establish a wildlife sighting and incident reporting system. - Maintain safe driving speeds (<40 km/h on farms).	All Staff / ECO
Poaching & Illegal Plant Harvesting	Loss of wildlife and protected flora	- Enforce a **zero-tolerance poaching policy**.	Proponent / Contractor

		- Prohibit removal of plant material (aloe leaves, firewood, seeds). - Site access must be controlled and monitored. - Report any suspected poaching to MET/MEFT.	
Fire Risk (Affects Both Fauna & Flora)	Bushfires leading to loss of vegetation, aloe stands, and wildlife	- No open fires allowed.- Equip all vehicles with fire extinguishers.- Maintain cleared firebreaks around drill sites.- Avoid work on extreme fire-danger days.- Train staff in fire response.	Site Manager / Contractor
Pollution (Hydrocarbons, Waste)	Soil/water contamination affecting plant roots & wildlife	- Bund all fuel storage (110% capacity). - Use drip trays for machinery. - Remove all waste to licensed sites. - Clean up spills immediately using spill kits. - No waste burial or burning.	Contractor / Proponent
Disturbance to Avifauna (Birdlife)	Disruption of nesting or roosting areas	- Avoid clearing trees during bird breeding season (if applicable to species present). - Mark tall structures if left overnight to prevent bird collision.	ECO / Contractors

		- Maintain woodland buffers near nesting trees.	
Reptile & Small Mammal Mortality	Injury or death from pits, trenches or vehicle movement	- Cover or fence open trenches overnight. - Inspect pits daily for trapped animals. - Provide escape ramps in deeper excavations. - Limit vehicle movement to designated tracks.	Contractor / Site Supervisor
Post-Exploration Vegetation Recovery	Poor regrowth on disturbed areas	- Re-spread topsoil after backfilling. - Encourage natural revegetation using brush-packing. - Avoid smoothing natural rocky surfaces where aloes grow. - Monitor regrowth for at least one rainy season.	ECO / Proponent

5.8 Socio-Economic Environment

The EPL is situated within an economically important agricultural district.

Key socio-economic characteristics include:

- Commercial livestock production as the dominant economic activity
- Otjiwarongo town serving as the major service and supply hub
- Low population density within the EPL boundary
- Employment opportunities created through exploration activities (as noted in the BID)

No schools, settlements, clinics, or community institutions occur inside the

6 ENVIRONMENTAL MANAGEMENT PRINCIPLES

The Environmental Control Officer (ECO) will ensure that all project participants adhere to the following principles:

- All employees will be obliged to undertake activities in an ecologically and socially responsible way. This applies to all consultants, workers, contractors, and subcontractors, as well as transporters, visitors, and anyone else who enters the premises.
- Safeguard the health and safety of project personnel and the public against potential impacts of the project. This includes issues of road safety, precautions against dangers on site, potential hazards
- Promote good relationships with the surrounding settlements and other stakeholders.
- Wise use and conservation of environmental resources, giving due consideration to the use of resources by present and future generations;
- Prevent or minimize environmental impacts,
- Minimize air, water, and soil pollution; and Conserve Biodiversity.

7 MANAGEMENT OF KEY POTENTIAL ENVIRONMENTAL IMPACTS

7.1 Roles and Responsibilities for Environmental Management

The environmental aspects associated with the exploration programme on EPL 9836 may result in both positive and negative impacts. This section outlines the roles, responsibilities, communication structures, and implementation requirements necessary to ensure effective environmental management throughout the project lifecycle. It also sets out the objectives, indicators, and responsibilities of all stakeholders involved in implementing the EMP.

7.1.1 Communication Between Parties

Open and transparent communication between all project stakeholders is essential for proactive environmental management. This approach ensures that potential negative

impacts are anticipated, avoided, or minimized rather than addressed only after the damage has occurred.

Particular emphasis must be placed on preventing unnecessary off-track driving and avoiding damage to vegetation especially protected, rare, or slow-growing species such as *Aloe littoralis*. These impacts are often difficult or impossible to rehabilitate, making proactive management critical.

The communication system must include:

- Clear reporting lines
- Regular updates between the ECO, Site Manager, contractors, and the Proponent
- Early notification of activities that may pose risks
- Immediate reporting of incidents or non-compliance

7.1.1.1 Stakeholder Engagement

Effective stakeholder engagement is a critical component of responsible mineral exploration and is essential to ensuring transparency, building trust, and preventing conflict during project implementation. The Proponent, together with the ECO and the Manager of Field Operations (MFO), shall ensure that all Interested and Affected Parties (I&APs) are informed of the project activities and that meaningful opportunities for engagement are provided throughout the exploration lifecycle.

Stakeholder engagement activities for EPL 9836 will include, but are not limited to, the following:

a) **Notification of Project Activities**
    - Public notices shall be placed **in** local newspapers, in accordance with the Environmental Management Act (EMA) and its Regulations.
    - Site notices will be prominently displayed at strategic locations within and around the EPL to inform local communities, landowners, and passers-by of the intention to undertake prospecting and exploration activities.

- All notices will clearly state the project description, proponent details, contact information, and the period within which stakeholders may submit comments.

b) Engagement with Landowners and Local Communities

- The Proponent shall maintain open communication with landowners and community members throughout all phases of exploration.
- Prior to the commencement of fieldwork, landowners shall be consulted to ensure access arrangements, safety considerations, and expectations are clearly understood.
- Any concerns raised by landowners or local communities will be recorded by the ECO and addressed promptly.

c) Management of Stakeholder Queries and Complaints

- A stakeholder register will be maintained, listing all individuals or groups who express interest in the project.
- A Grievance and Feedback Mechanism will be implemented to allow I&APs to raise issues or lodge complaints.
- The ECO will ensure that all complaints are investigated, addressed, and documented, with response actions communicated back to the affected stakeholder.

d) Ongoing Communication During Exploration

- Updates on exploration progress, access routes, and any activity that may affect communities or landowners will be shared proactively.
- Where significant changes to exploration activities are planned, the Proponent shall notify relevant stakeholders beforehand.
- The ECO will ensure that all engagement activities are documented, forming part of the project's compliance reporting.

e) Integration of Stakeholder Input

- Stakeholder comments and recommendations will be considered in decision-making where feasible and appropriate.

- Issues raised during engagement processes shall be incorporated into mitigation measures, access arrangements, and operational planning.

7.1.2 The Exploration Operating Company (Proponent)

The Proponent, through its Managing Director and ECO, is ultimately responsible for ensuring that all exploration activities comply with the EMP and relevant legislation. Responsibilities include:

- Ensuring the EMP and its environmental specifications are built into all contractual documents.
- Ensuring all contractors, subcontractors, and consultants comply with the EMP and relevant Namibian legislation and international standards where applicable.
- Enforcing compliance with the environmental specifications on a day-to-day basis.
- Appointing a suitably qualified ECO to conduct environmental monitoring and periodic audits.
- Ensuring adequate budget is allocated for environmental management measures.
- Commissioning tree/vegetation surveys where needed (e.g., before new access tracks or clearances).
- Ensuring forestry permits are applied for and obtained when protected species may be affected.
- Maintaining open and effective communication regarding environmental matters with all project parties.

7.1.3 Site Managers

Day-to-day environmental responsibility will be assigned to the Site Manager and Manager: Field Operations (MFO), supported by the ECO. Their responsibilities include:

- Familiarity with the EMP and relevant sections of the ESA/EIA.
- Implementing and enforcing environmental specifications at the workface.

- Monitoring daily compliance and communicating the ECO's directions to staff and contractors.
- Consulting with the ECO in cases where environmental damage has occurred or may occur and implementing necessary remedial measures.
- Keeping photographic and written records of "before-and-after" site conditions.
- Facilitating communication between workers, contractors, and the ECO to ensure effective environmental management.

7.1.4 Environmental Control Officer (ECO)

The Proponent must appoint a competent ECO to oversee environmental management. The ECO will:

- Conduct environmental audits and site inspections at least bi-annually or as required by MEFT.
- Compile environmental inspection reports for submission to the Managing Director and MFO.
- Advise the MFO on interpreting and implementing environmental requirements.
- Recommend corrective actions in cases of non-compliance.
- Submit required reports to MEFT at intervals stipulated by law or ECC conditions.
- Maintain an incident register documenting environmental events, corrective actions, and follow-up measures.

7.1.5 Contractors

All contractors operating on EPL 9836 must comply with this EMP. Their responsibilities include:

- Ensuring all staff understand and follow the EMP and environmental specifications.
- Notifying the Site Manager and ECO well in advance of any activity that may cause significant negative impacts so that mitigation measures can be agreed upon and implemented beforehand.

- Providing environmental induction and training to their employees and subcontractors.
- Ensuring appropriate waste management, pollution control, and safe operational practices.
- Undertaking rehabilitation measures progressively, rather than leaving all rehabilitation to the end of the project.
- Cooperating fully with the ECO during audits, inspections, and corrective action processes.

8 DETAILED ENVIRONMENTAL MANAGEMENT PROCEDURES

This section provides the specific, actionable procedures that must be followed.

8.1 Pre-Operational Planning and Land Access

- **Land Access Agreements:** No vehicle or personnel shall enter any privately owned land within the EPL without a signed Land Access Agreement as per Section 52 of the Minerals Act.
- **No-Go Zones:** Prior to mobilisation, the MFO and ECO shall identify and clearly demarcate environmentally sensitive "No-Go Zones," including drainage lines, dense vegetation, and areas near homesteads.
- **Stakeholder Notification:** A schedule of planned activities must be shared with relevant landowners and the Local Authority at least 14 days in advance.

8.2 Access, Track Management and Erosion Control

- **Use of Existing Tracks:** Vehicle movement must be restricted to existing farm and access tracks. Off-road driving is strictly prohibited.
- **New Track Establishment:** If absolutely necessary, requires prior written approval from the landowner and the ECO. New tracks must follow natural contours, avoid drainage lines, and be rehabilitated immediately after use.
- **Erosion Control:** At all sites where vegetation is cleared, immediate erosion control measures must be implemented, such as brush packing or sediment fences.

8.3 Biodiversity and Flora Conservation

- **Minimised Clearance:** Vegetation clearance must be limited to the absolute minimum necessary for safety and operational efficiency.
- **Protected Species:** A pre-clearance survey must be conducted to identify any plant species protected under the Forestry Act. A permit from the Directorate of Forestry is required before any protected species can be disturbed.
- **Topsoil Management:** In areas of ground disturbance, the top 150-200mm of topsoil must be carefully stripped, stockpiled separately, and protected for use in rehabilitation.

8.4 Waste Management

- **The Principle:** "Take it in, take it out" shall apply to all non-organic waste.
- **Waste Segregation:** Clearly labelled, sealed bins for general waste, recyclables, and hazardous waste must be provided at all work sites.
- **Hazardous Waste:** All used oils, filters, and chemical containers must be stored in a dedicated, bunded area and removed by a licensed waste carrier. Records of waste disposal receipts must be maintained.

8.5 Pollution Prevention and Hazardous Substances Management

- **Fuel and Oil Storage:** All hydrocarbons must be stored in dedicated, labelled containers placed within an impermeable bund with a volume of 110% of the largest container.
- **Maintenance and Refuelling:** All vehicle and equipment maintenance and refuelling must occur over drip trays in a designated, bunded area, at least 50m from any drainage line.
- **Spill Response Plan:** A Spill Response Kit must be present on all service vehicles. All personnel must be trained in immediate spill containment and reporting procedures. Any spill exceeding 25 litres must be reported to the MFO, ECO, and MAWLR within 24 hours.

8.6 Water Resource Protection

- **Water Abstraction:** The abstraction of groundwater for drilling or other purposes is strictly prohibited without a valid Water Abstraction Permit from MAWLR.
- **Source Water:** Water for drilling and dust suppression should be sourced via bulk water suppliers from outside the project area.
- **Drillhole Decommissioning:** Upon completion, each drillhole must be properly decommissioned to prevent it from becoming a conduit for contamination in the karst environment. This involves geophysical logging, placement of bentonite plugs, and backfilling with cement/bentonite grout. A detailed Drillhole Decommissioning Record for each hole must be submitted to the ECO and MEFT.

8.7 Air Quality, Dust and Noise Management

- **Dust Suppression:** On unsealed access tracks and work areas, dust must be suppressed by applying water at a frequency sufficient to prevent visible dust plumes. Speed limits on site tracks shall be set at 30 km/h.
- **Noise:** Noisy activities shall be restricted to weekdays between 07h00 and 18h00. All machinery must be equipped with standard mufflers.

8.8 Heritage and Archaeological Resources Protection

8.8.1 Impact Assessment of Archaeological and Heritage Resources

The EPL 9836 project area is situated within a landscape of inferred archaeological sensitivity. Although no heritage resources were formally recorded during the desktop assessment, the geological setting and known regional heritage patterns indicate a high likelihood that undiscovered archaeological sites, artefacts, or subsurface features—such as stone tools, pottery fragments, historical remains, or unmarked graves—may occur.

Exploration activities, particularly drilling, trenching, excavation, and movement of heavy vehicles, may inadvertently disturb or destroy such resources. The pre-mitigation impact significance is therefore assessed as Medium**,** due to the irreversible nature of potential damage. When mitigation measures are fully implemented, the impact significance is reduced to Low**.**

8.8.2 Mitigation Measures and Recommendations

To safeguard archaeological and heritage resources, the following measures shall apply:

- A qualified archaeologist must be appointed to conduct a detailed archaeological survey prior to drilling or any mechanically assisted exploration where ground disturbance is expected.
- All exploration activities must stop immediately if any archaeological remain, artefact, or suspected grave is uncovered.
- The project shall adopt and implement the Archaeological Chance Finds Procedure**.**
- **Chance Finds Procedure:** In the event that any objects of archaeological or heritage significance are uncovered, the following steps must be followed without exception:
    - Immediately halt all activities in the affected area.
    - Cordone off and protect the site to prevent disturbance.
    - Notify the MFO and ECO as soon as possible.
    - The ECO must report the discovery to the National Heritage Council of Namibia (NHC) promptly for further instructions.
    - No work may continue until the NHC has inspected the site (where required) and issued formal written permission to proceed.

The NHC will advise on the correct procedures for assessing, documenting, and, if necessary, removing the materials. Activities may only resume once official authorisation has been granted

8.8.2.1 Archaeological and Heritage Resources – Impact, Mitigation, Responsibility, Monitoring

Table 8-1: Archaeological & Heritage Resources Mitigation.

Potential Impact	**Mitigation Measures**	**Responsibility**	**Monitoring Indicators**
Disturbance or destruction of archaeological sites, artefacts, or unmarked graves during exploration activities (Medium → Low significance with mitigation)	-Appoint a qualified archaeologist to conduct a detailed survey before drilling or ground-disturbing activities. - Implement and enforce the Chance Finds Procedure - Stop work immediately if any heritage resource is discovered. - Secure the site and notify the ECO and MFO. - ECO to notify the National Heritage Council (NHC) for guidance. - Resume work only upon written approval from the NHC.	Environmental Officer (ECO); Manager Field Operations (MFO); All Personnel; Appointed Archaeologist	- Archaeological survey report completed. - Evidence of worker awareness and training. - Register of chance finds maintained. - NHC communication records. - No unauthorised disturbance of heritage material

9 ENVIRONMENTAL MANAGEMENT PRINCIPLES

The Proponent commits to ensuring that all project participants uphold the following principles:

a) Ecological and Social Responsibility

All employees, including consultants, workers, contractors, subcontractors, transporters, visitors, and others entering the premises, are obligated to conduct activities in an ecologically and socially responsible manner.

b) Health and Safety

Safeguarding the health and safety of project personnel and the public is paramount. This includes addressing road safety, on-site dangers, and potential hazards associated with the project.

c) Community Relations

Foster positive relationships with surrounding settlements, farm owners and stakeholders, emphasizing open communication and collaboration.

d) Wise Use and Conservation of Environmental Resources

Ensure the wise use and conservation of environmental resources, with consideration for both present and future generations. Prevent or minimize environmental impacts associated with project activities. Take measures to minimize air, water, and soil pollution resulting from project operations. Actively contribute to the conservation of biodiversity in the project area.

These principles underscore the Proponent's commitment to responsible and sustainable practices, promoting not only the success of the project but also the well-being of the environment, communities, and future generations.

10 ENVIRONMENTAL SPECIFICATIONS

These are detailed and specific requirements, standards, and guidelines that are set to govern and ensure the environmental performance of exploration. These specifications are designed to minimize or mitigate any potential negative impacts on the environment

resulting from the activities associated with the exploration. These specifications cover a range of aspects and practices to promote responsible and sustainable environmental management. The environmental specifications are:

10.1 Compliance with Environmental Specifications

- Conducting activities in an environmentally and socially responsible manner.
- Strict adherence to environmental specifications by the contractor and on-site personnel.

10.2 Training and Awareness

- Provision of training for all site personnel and contractors to ensure compliance with environmental specifications.
- Oversight by the Manager Field Operations (MFO) to guarantee appropriate training levels at all personnel tiers.

10.3 Stakeholder Relations

- Maintenance of positive relations with landowners and the public by all site personnel.
- Addressing and resolving any complaints received by the Environmental Control Officer (ECO).

10.4 Permits

- Obtaining all necessary permits from relevant authorities.
- Conservation and relocation of rare and endangered plants require permits from the Directorate of Forestry.

10.5 Road Safety

- Implementation of precautions for safe access road usage, considering visibility, animal presence, and road conditions.
- Adherence to speed limits, cautious driving, and strict control of vehicle movements.

10.6 Access Tracks

- No new tracks unless essential, with approval from the Municipality and landowners.
- Clear marking of selected access and site roads, avoiding damage to plants.
- Foot access to elevated or trackless sites where possible.

10.7 Conservation of Biodiversity

- Strict avoidance of damage to protected species.

10.8 Wildlife Poaching

- Prohibition of capturing, killing, or harming animals or birds.
- Strict consequences for violations, including potential suspension from the project and prosecution.

10.9 Soil Management and Erosion Control

- Careful excavation to minimize topsoil removal.
- Separation and stockpiling of subsoil for backfilling.
- Prevention of soil erosion with suitable measures in sensitive areas.

10.10 Pollution Control

- Immediate reporting and containment of spills by workers.
- Mitigation of pollution incidents by the contractor.

10.11 Air Pollution/Dust Emission

- Timely activities during permissible weather conditions.
- Sheltered location for soil and sand stockpiles.
- Vegetation retention to reduce dust, re-vegetation of exposed surfaces, and controlled vehicle movement.
- Adherence to speed limits and dust monitoring practices.

10.12 Noise Pollution

- Keeping noise levels within acceptable limits, following appropriate noise mitigation specifications.
- Limiting noisy activities to specific times and avoiding weekends and public holidays.

10.13 Waste Management

- Maintaining cleanliness with provided bins and responsible waste disposal.
- No on-site burial of waste; removal to approved facilities.

10.14 Hazardous Substances

- Proper labelling and sealing of containers holding hazardous substances.
- Bunding of tanks to contain spills, immediate clean-up, and disposal of spills.

10.15 Fire Prevention

- Emergency Response Plan establishment.
- Controlled burning of charcoal with precautions and supervision.

10.16 Archaeological Sites

- Protection of archaeological remains, reporting of any finds to the Heritage Council.

10.17 Health and Safety

- Detailed induction for all personnel, including measures for dust, bees, snakes, and scorpions.
- Emphasis on good personal hygiene, including handwashing before eating.
- Provision of personal protective equipment and first aid supplies.

10.18 Dust Management

Staff provided with dust masks and proper Personal Protective Equipment (PPE) during charcoal processing to prevent inhalation.

10.19 Ingestion Prevention

Prohibition of eating, drinking, or smoking while working with potentially hazardous materials to avoid ingestion

10.20 Emergency Measures

Availability of Aspivenin (suction syringe) at all workstations for first aid in case of snake bites, scorpion stings, or bee stings.

10.21 Work Stoppage

- Authority of the MFO to halt work in case of environmental specification infringements.
- No entitlement to claims for delays during work stoppages.

10.22 Compliance Monitoring

- Monthly site compliance inspections by the company ECO.
- Compilation of EMP compliance reports submitted regularly to the MFO and biannually to the MEFT.

11 DECOMMISSIONING, REHABILITATION AND CLOSURE PLAN

Rehabilitation is a progressive process conducted concurrently with operations.

- **Progressive Rehabilitation:** As each exploration target is completed, rehabilitation must commence within one month.
- **Site-Specific Methods:**
    - **Trenches and Pits:** Backfill with original material, compact, and cover with stockpiled topsoil.
    - **Drill Pads:** Remove all equipment, rip compacted surfaces, and re-spread topsoil.
    - **Access Tracks:** Ripper lines to break up compaction and re-contour to blend with natural topography.

- **Closure Criteria:** The site will be considered successfully rehabilitated when all infrastructure is removed, the landform is stable, natural revegetation is established, and the landowner provides written sign-off

12 ENVIRONMENTAL IMPACTS, AND MITIGATION MEASURES

This section represents the heart of the Environmental Management Plan (EMP) for EPL 9836, offering a structured and comprehensive evaluation of the potential environmental and socio-economic impacts associated with the proposed exploration activities. It outlines not only what impacts may occur, but also how they will be controlled, managed, and monitored throughout the duration of the project.

The section progresses from identifying impacts to prescribing clear management responses, ensuring that each anticipated effect is matched with a practical and enforceable mitigation action.

12.1 Core Elements of This Section

12.1.1 Identification of Potential Impacts

All expected impacts positive and negative arising from the exploration programme on EPL 9836 are outlined across all activity phases, including:

- Initial mobilization and access preparation
- Active exploration activities (geophysical surveys, sampling, trenching, drilling)
- Site rehabilitation and closure

Positive impacts include short-term employment opportunities, local procurement, and skills development.
Negative impacts are grouped according to environmental themes relevant to the EPL 9836 landscape, such as:

- Disturbance to vegetation and fauna in the Thornbush Savanna environment
- Soil erosion and contamination
- Potential impacts on groundwater resources

- Dust generation and noise from machinery
- Waste generation
- Health and safety concerns for workers and farm residents
- Possible disturbance of heritage or archaeological resources

These impacts reflect the specific environmental sensitivities of the EPL 9836 area, including its semi-arid climate, shallow soils, and active agricultural land use.

12.1.2 Risk-Based Impact Evaluation

Instead of listing impacts in isolation, this section assesses their significance using a risk-based approach drawn from the EIA Scoping process.
Impacts are analysed based on:

- Likelihood of occurrence
- Duration of the effect
- Geographical extent
- Intensity or severity
- Reversibility

This methodology helps determine which impacts require stringent controls. For EPL 9836, particular attention is given to:

- Protection of groundwater, which local farmers rely on for livestock
- Preventing soil degradation in areas prone to erosion
- Avoiding unnecessary vegetation clearing
- Managing drill waste and fuel handling to prevent contamination

12.2 Mitigation Measures Following the Hierarchy of Controls

For each identified impact, mitigation measures are structured according to internationally recognised best practice:

12.3 Avoidance

Preventing impacts before they occur—for example:

- Avoiding unnecessary vegetation clearing
- Identifying no-go areas such as dense protected trees or sensitive habitats

12.4 Minimisation

Where impacts cannot be avoided, measures are put in place to reduce their magnitude, such as:

- Watering access tracks to control dust
- Restricting operating hours for noisy activities
- Reducing the footprint of drill pads and trenches

12.5 Rehabilitation

Restoring the site immediately after use, including:

- Backfilling trenches
- Closing drillholes to technical standards
- Reshaping disturbed soil and promoting natural regeneration

12.6 Compensation / Offsetting

Used only where unavoidable impacts remain after all other measures.

12.7 Clear and Actionable Management Commitments

Mitigation measures are not presented as general statements they are defined as specific actions, consistent with industry standards and the environmental conditions of EPL 9836. Examples include:

- Fuel and lubricants must be stored within a bunded area with a minimum capacity of 110% of the largest container.
- Implementation of the approved Chance Finds Procedure in the event of discovering heritage resources.
- Drillhole closure following correct sealing methods (e.g., bentonite or grout sealing).
- Enforcing speed limits of 30 km/h on farm tracks to reduce dust and avoid livestock collisions.

12.8 Alignment With Roles and Responsibilities

Each mitigation measure in this section is linked to the responsible party as defined earlier in the EMP, ensuring clear accountability.
Examples include:

- The Exploration Manager overseeing general compliance
- The Environmental Control Officer (ECO) performing inspections
- The Drilling Contractor ensuring safe drilling practices
- The Field Team Leader supervising day-to-day site management

Monitoring requirements are aligned with these responsibilities to ensure that implementation is verifiable and enforceable.

12.9 Environmental Impacts, and Mitigation Measures

Table 12-1: Environmental Impacts, and Mitigation Measures.

Environmental Impact	Proposed Mitigation Measures	Responsibility	Monitoring Indicators
Air Pollution / Dust Generation	-Conduct regular maintenance of vehicles and heavy equipment. -Brief workers and contractors on dust control requirements. -Enforce speed limits and controlled vehicle movement. -Undertake grading/landscaping only when necessary. -Provide dust masks/PPE to all workers. -Limit clearing during windy periods.	Personnel on Duty; Foreman; Environmental Officer (EO)	-Visible dust during operations. -Compliance with speed limits. -Condition of access roads and cleared areas.
Noise Pollution	-Keep noise within acceptable levels. -Notify employees and neighbours of planned noisy activities. -Conduct regular maintenance of noisy machinery and vehicles. -Provide workers with hearing protection where necessary. -Restrict noisy work to	Foreman; EO; Safety, Health & Environment (SHE) Manager	-Noise level measurements. -Noise complaints logged. -Maintenance records.

	06h00–18h00.		
Solid Waste	-Provide clearly labelled refuse bins and skips at strategic points. -Encourage recycling of plastic, cans, and paper. -Empty bins regularly and dispose at approved facilities. -Maintain bulk storage waste points to prevent littering. -Prohibit burying or burning of waste onsite.	Personnel on Duty; EO; SHE Manager	-Condition and availability of waste bins. -Records of waste removal. -Site cleanliness.
Oil Leaks and Hydrocarbon Spills	-Conduct vehicle maintenance in a designated, sealed, and bunded area. -Handle and store oils on impervious, bunded surfaces. -Keep spill kits onsite and train workers in their use -Maintain equipment to prevent leaks. -Clean spills immediately and dispose of contaminated materials properly.	Personnel on Duty; Foreman; EO; SHE Manager	-Absence or presence of oil spills. -Spill incident register. -Condition of bunded areas.
First Aid & Medical	-Maintain a well-stocked first aid kit at all times.	SHE Manager; Safety & Health	- Contents of first aid kits.

Emergencies	- Train personnel in first aid and emergency response. - Display emergency contact information onsite.	Officer	- Incident and treatment records.
Visual / Aesthetic Impact	- Apply environmental considerations before clearing, trenching, or excavating. - Limit disturbance to designated work areas only. - Rehabilitate disturbed areas progressively.	SHE Manager; EO	- Visual inspection reports. - Evidence of minimal disturbance. - Rehabilitated areas.
Archaeology & Cultural Heritage	- Establish buffer zones around known heritage sites. - Follow guidance from a qualified archaeologist when operating in sensitive areas. - Identify and protect all archaeological sites before work begins. - Keep an archaeologist on standby during high-risk phases. - Report chance finds immediately to EO and NHC; do not disturb materials.	All Personnel; EO; SHE Manager	- Heritage register updated. - Chance finds log maintained. - Buffer zones clearly demarcated.
Occupational Health & Safety	- Provide PPE and train workers in its correct use.	Safety & Health Officer; SHE	- PPE usage on-site.

	- Maintain clean and adequate sanitary facilities. - Keep first aid kits stocked and accessible. - Investigate and record all incidents and near-misses. - Conduct regular toolbox talks and inductions.	Manager	- First aid kit availability. - Records of incidents and inductions.
Fauna Disturbance	- Avoid sensitive habitats such as riverbeds, rocky outcrops, and caves. - Conduct fauna surveys if necessary. - Prohibit harming or capturing animals. - Prevent improper disposal of food waste to avoid attracting wildlife. - Educate workers on human–wildlife conflict prevention.	Personnel on Duty; EO; SHE Manager	- Observation of animal movement. - Wildlife incidents recorded. - Cleanliness of work areas.
Alien Invasive Plant Spread	- Ensure vehicles and equipment arrive clean and free of seeds. - Implement an alien vegetation management plan. - Remove and control invasive species early. - Train workers to recognise invasive plants.	EO; Environmental Manager	- Regular inspections for invasive species. - Records of removals or treatment.

Loss of Vegetation	- Follow environmental guidelines before clearing. Prevent vehicle movement in sensitive areas (riverbeds, rocky outcrops). - Restrict vehicle access to authorised routes. - Rehabilitate cleared areas with native vegetation.	EO; SHE Manager	- Warning signage in place. - Restoration of disturbed areas. - Compliance with approved access routes.

13 MONITORING PLAN

13.1 Project Readiness Monitoring

- Verify permits
- Conduct environmental induction
- Confirm access agreements

13.2 Environmental Quality Monitoring

- Soil and vegetation condition
- Waste disposal records
- Water usage

13.3 EMP Compliance Monitoring

- ECO reports
- Incident logs
- Internal audits

13.4 Operational Monitoring

- Drill site inspections
- Hydrocarbon storage checks

- Rehabilitation status tracking

13.5 INCIDENT REPORTING AND NON-COMPLIANCE PROTOCOL

- **Incident Reporting:** Any environmental incident must be reported to the MFO and ECO within 24 hours. A formal Incident Report must be compiled.
- **Non-Compliance:** The ECO is empowered to issue a formal Notice of Non-Compliance for any breach. Repeated or serious non-compliance will result in a Stop Work Order.

14 ENVIRONMENTAL CODE OF CONDUCT

This Environmental Code of Conduct applies to every person involved in the exploration programme on EPL 9836, including the Proponent, contractors, subcontractors, casual labourers, permanent staff, and any visitors entering the site. All individuals accessing the exploration area are expected to comply with the environmental standards and operational rules outlined in this EMP.

The Environmental Control Officer (ECO) will oversee adherence to these requirements. The ECO is empowered to issue warnings, request corrective action, and report breaches to site management. Persistent or severe non-compliance may result in disciplinary measures, which may include being removed from the project area. The purpose of this Code of Conduct is to ensure that everyone working on the project contributes to safe, respectful, and environmentally responsible operations.

14.1 Site Closure and Rehabilitation

Rehabilitation forms an essential part of responsible exploration and is undertaken to restore areas that have been disturbed during project activities. The goal is to return affected sites as closely as possible to their natural condition and to ensure that the landscape is left stable, safe, and free from pollution once exploration ends.

Rehabilitation efforts will focus on:

- Drill pads
- Trenches and pits

- Access tracks
- Temporary work areas
- Areas used for storage, sampling, and equipment placement

The closure vision is to achieve a self-sustaining, environmentally stable landscape that does not pose risks to people, livestock, wildlife, or downstream users.

14.1.1 Site Closure and Rehabilitation Activities

The following measures will be implemented as part of the closure and rehabilitation programme:

- All temporary structures, including storage areas, shelters, and camp facilities, will be dismantled and removed from site.
- All machinery, drilling equipment, and associated materials will be cleaned and taken off site.
- Temporary installations such as generators, solar units, and fuel storage systems will be safely removed.
- All pits, trenches, drill sumps, or similar excavations will be backfilled with appropriate material and shaped to blend with the surrounding terrain.
- Any new access tracks created for exploration will be rehabilitated in consultation with the landowners, and only approved existing routes will be used during operations.
- Care will be taken to prevent unnecessary damage to existing secondary roads.
- Topsoil and subsoil recovered during clearing or excavation will be redistributed to assist natural regeneration.
- Areas where contamination or spills may have occurred will be cleaned, treated, and restored to prevent future pollution.
- All waste domestic and hazardous will be removed and transported to licensed disposal facilities in Otavi, Otjiwarongo, or other approved waste management sites.

15 RECOMMENDATIONS

Based on the assessment undertaken and the mitigation measures proposed in this Environmental Management Plan (EMP), it is recommended that the Proponent be issued with an Environmental Clearance Certificate (ECC) to proceed with the planned exploration activities on EPL 9836. The project, as assessed, presents manageable environmental risks, provided that all mitigation, monitoring, and compliance requirements outlined in this EMP are implemented effectively.

It is further recommended that:

- All exploration activities strictly adhere to the approved EMP, including monitoring schedules, site management procedures, health and safety requirements, and rehabilitation standards.
- Communication with affected landowners and stakeholders be maintained throughout the exploration programme, particularly where access, movement of equipment, or potential disturbance is anticipated.
- Records of all environmental inspections, waste disposal, incidents, and rehabilitation actions be kept on site as part of ongoing compliance monitoring.
- Environmental training and induction sessions be conducted for all personnel, including contractors, to ensure full understanding of environmental obligations.
- If the exploration phase identifies areas of promising or economically viable mineralization, the Proponent must undertake a new, site-specific Environmental Impact Assessment (EIA) prior to advancing to bulk sampling, pilot-scale operations, or mining.
- This subsequent EIA must be tailored to the specific site conditions and impacts expected from advanced exploration or mining and must be accompanied by an updated Environmental Management Plan (EMP) addressing:
    - water abstraction and use
    - waste rock and tailings management
    - energy requirements

- access roads and infrastructure
- long-term social and environmental impacts

These recommendations ensure that any transition from early-stage exploration to large-scale mineral development remains aligned with national legislation and environmental best practices.

16 CONCLUSION

This Environmental Management Plan provides a comprehensive framework for managing environmental risks associated with the proposed exploration activities on EPL 9836. It reflects the Proponent's commitment to conducting exploration work in a responsible, transparent, and environmentally conscious manner.

The EMP outlines clear procedures for identifying, monitoring, managing, and mitigating environmental impacts throughout the project lifetime. When properly implemented, the EMP will enable the Proponent to:

- Reduce or avoid unnecessary environmental harm
- Enhance local socio-economic benefits, including temporary employment and skills transfer
- Minimise disturbance to vegetation, soils, water resources, and wildlife
- Maintain positive working relationships with landowners and stakeholders
- Promote safe, compliant, and sustainable exploration practices

While exploration activities inherently carry some environmental risk, these impacts are expected to be temporary, limited in extent, and reversible, provided that the mitigation measures and monitoring strategies described in this EMP are continuously applied.

Furthermore, the EMP highlights the responsibility of the Proponent, contractors, and the Environmental Control Officer (ECO) to ensure compliance with all national environmental laws, including the Environmental Management Act (Act 7 of 2007), its Regulations, and other sector-specific legislation.

Finally, this EMP should be regarded as a living document, subject to updates and improvements as the project progresses or as new environmental information becomes available. Its flexible structure ensures that environmental management can be adapted to changing conditions while maintaining high standards of environmental protection and operational efficiency.

17 REFERENCES

Bendi, M. (2003). *Namibia: Mining Overview.* Retrieved November 24, 2025

Environmental Management Act 7 of 2007

Badenhorst, F.P. 1992. The lithostratigraphy of area 2115 B and D in the Central Zone of the Damara Orogen, Namibia: with emphasis on facies changes and regional correlations. Unpubl. M.Sc. thesis, Univ. Port Elizabeth, 124pp

Hoffmann, K.-H. 1987. Application of tectonostratigraphic terrane analysis in the Damara Province of central and northern Namibia. In: Hartnady, C.J.H. (Ed.), Proceedings and abstracts of the Alex L. Du Toit Golden Jubilee Conference on Tectonostratigraphic Terrane Analysis, Cape Town, 25-26.

Ministry of Environment, Forestry and Tourism.

MIT. (2003). *Report on investment opportunities in mining.* Retrieved April 10, 2023, from http://www.mti.gov.na/invopps text/mining.htm