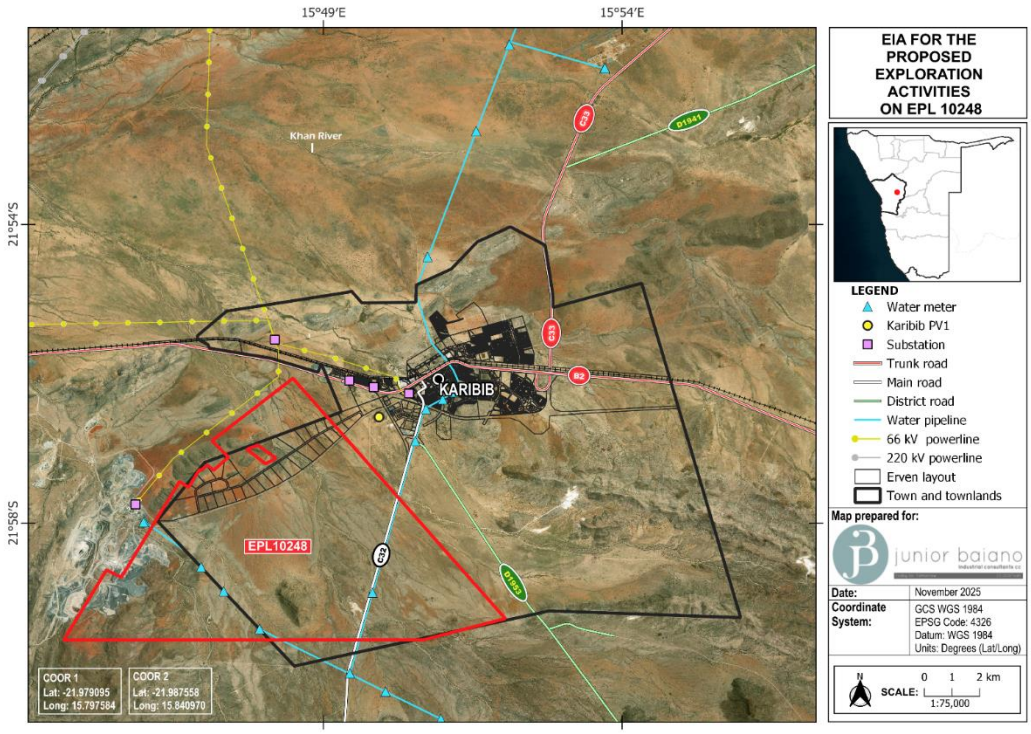
ENVIRONMENTAL IMPACT ASSESSMENT

FOR THE PROPOSED PROSPECTING AND EXPLORATION ACTIVITIES ON EPL 10248 IN KARIBIB DISTRICT, ERONGO REGION, NAMIBIA



ENVIRONMENTAL MANAGEMENT PLAN
FINAL VERSION
ECC APP NO: 6807
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1.1 INTRODUCTION

The proposed exploration activities on Exclusive Prospecting Licence (EPL) 10248, located within the Karibib District of the Erongo Region, have the potential to generate a range of localised, short-term biophysical and socio-economic impacts. As identified in the Environmental Impact Assessment, these impacts are primarily associated with vegetation clearing at drill pads and access routes, soil disturbance, dust and noise generation, groundwater contamination risks from fuel or drilling activities, heritage chance-finds, and temporary socio-economic interactions related to exploration logistics and workforce presence.

Given the temporary and low-intensity nature of exploration activities, most potential impacts are expected to be limited in extent, reversible, and manageable through the application of good practice measures. This Environmental Management Plan (EMP) sets out the site-specific environmental and social management measures that the proponent must implement throughout all stages of exploration on EPL 10248. The EMP forms an integral component of the Environmental Impact Assessment undertaken in accordance with the Environmental Management Act (EMA), No. 7 of 2007, and the Environmental Impact Assessment Regulations (GN 30 of 2012).

The EMP provides a practical framework to ensure that exploration activities are conducted in a manner that protects the natural environment, farming livelihoods, and surrounding land uses, while maintaining compliance with statutory requirements and licence conditions..

1.1.1 Purpose of the EMP

The purpose of this EMP is to provide a structured and enforceable framework for environmental and social management during the exploration phase on EPL 10248. Specifically, the EMP aims to:

- prevent or avoid negative environmental and social impacts wherever feasible;
- minimise, control, and rehabilitate impacts that cannot be avoided;
- ensure compliance with applicable Namibian legislation, licence conditions, and recognised industry best practice; and
- safeguard environmental integrity, landowner interests, and community wellbeing throughout the exploration lifecycle.

1.1.2 Scope of the EMP

This EMP applies to all exploration-related activities associated with EPL 10248, including but not limited to:

- access track use and limited upgrading where required;
- geological mapping and field sampling;
- trenching, pitting, and drilling operations;
- establishment and operation of temporary field camps and laydown areas; and
- vehicle, equipment, and machinery movement within the licence area.

The EMP further addresses potential impacts on receptors within and surrounding the EPL, including:

- vegetation and wildlife habitats typical of the central savanna and bush-encroached landscapes;
- surface and groundwater resources, including ephemeral drainage lines and boreholes;
- soil resources susceptible to erosion and compaction;
- heritage and archaeological resources, addressed through a chance-find procedure; and
- local farm residents, landowners, workers, and lawful land users.

The EMP outlines the organisational responsibilities, mitigation and management measures, safety requirements, monitoring procedures, and reporting obligations necessary to ensure effective environmental protection and compliance throughout the exploration phase.

1.2 EMP ADMINISTRATION

There is a strong need to clearly outline the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. There is also a need for the proponent to appoint an overall responsible person (project manager) to ensure the successful implementation of the EMP as highlighted below.

Table 2-1: Roles and Responsibilities in EMP Implementation

ROLE	ENVIRONMENTAL RESPONSIBILITIES
Elina Ndaendelao Naukili	Responsible to enforce EMP implementation to contractors
Environmental Control Officer	• Implement, review and update the EMP. • Ensure all reporting and monitoring required under EMP is undertaken, documented and distributed as needed • Conduct environmental site training (tool box talks) and inductions with the support of an environmental consultant.

ROLE	ENVIRONMENTAL RESPONSIBILITIES
	• Conducts environmental audit at work site with the support of environmental consultant. • Close out all non-conformances. • Ensure materials being used on site are environmental friendly and safe.
The Department of Environmental Affairs	• Approve the EMP and any amendments to the EMP. • Approve reports of environmental issues and non-conformances as issued. • Review and approve environmental reports submitted as part of EMP implementation
Environmental Consultant	• Conduct and monitor actions required by the EMP if required • Conduct environmental site training (tool box talks) and inductions if assistance is required • Conducts environmental audit at work site • Ensure materials being used on site are environmental friendly and safe.
Site Technical Team	• Control and monitor actions required by the EMP. • Report all environmental issues to Environmental Control Officer. • Ensure documented procedures are followed and records kept on site. • Ensure any complaints are passed onto the management within 24 hours of receiving the complaint.
Workers	• Follow requirements as directed by site technical. • Report any potential environmental issues to site engineer/project manager, indicating spilt oil, excess waste, excessive dust generation, dirty water running off the site and other possible non-conformances

1.3 EMP Management Actions

The management actions aim to avoid potential impacts where possible. Where impacts cannot be avoided, management actions are outlined in order to minimize the significant impacts.

The tables below outline the specific management actions which need to be undertaken during the construction and operational phase of the development to ensure that the site activities are compliant.

1.4 CONSTRUCTION AND OPERATIONAL PHASE MANAGEMENT ACTIONS

The table below outlines the management actions to be undertaken during the construction and operation phase of the project to ensure compliance with the EMP.

Table 2-2: Construction and Operation EMP

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Noise pollution	Noise generated from exploration activities including drilling, vehicle movement, generators and machinery.	• Disturbance to workers. • Temporary disturbance to farm residents and livestock. • Short-term displacement of wildlife.	Environmental	Short term	• Environmental Control Officer (ECO) • Site Manager	• Limit noisy activities to daytime hours where feasible. • Maintain vehicles and equipment to minimize noise. • Inform landowners of activity schedules. • Use PPE (ear protection) where required. • Avoid sensitive areas where fauna may congregate.	Exploration
Dust generation	Dust generated from drilling, vehicle movement on gravel roads, and exposed soil surfaces.	• Respiratory irritation to workers. • Nuisance to nearby farm operations. • Reduced air quality and visibility.	Environmental	Short term	• ECO • Site Manager	• Watering of dusty surfaces where necessary. • Enforce speed limits on access roads. • Issue respirators to workers where required.	Exploration

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						• Minimise disturbance footprint.	
Soil disturbance & excavations	Localised soil disturbance at drill pads, sumps and access tracks.	• Safety hazards for people and animals. • Temporary loss of topsoil.	Safety / Environmental	Short term	• ECO • Site Manager	• Clearly demarcate excavation areas. • Install barriers or covers where necessary. • Stockpile topsoil separately for rehabilitation. • Rehabilitate disturbed areas after drilling.	Exploration
Loss of biodiversity / vegetation clearing	Clearing of vegetation for drill pads, access tracks and camps.	• Localised habitat disturbance. • Temporary loss of vegetation cover. • Potential disturbance to protected plant species.	Environmental	Short term	• ECO • Site Manager	• Limit clearing to minimum required footprint. • Avoid protected species (e.g. Devil's Claw, Kiaat). • Conduct pre-clearance ecological screening. • Rehabilitate cleared areas post-activities.	Exploration

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Faunal disturbance	Noise, vehicle movement and human presence disturbing wildlife.	• Temporary displacement of fauna. • Increased stress to livestock and wildlife.	Environmental	Short term	• ECO • Site Manager	• Restrict driving to existing tracks. • Enforce speed limits. • Avoid night-time operations where possible. • Prohibit hunting or harassment of animals.	Exploration
Bush fires	Risk of accidental fires from vehicles, equipment or smoking.	• Damage to grazing land. • Threat to farm infrastructure and wildlife.	Environmental	Short term	• ECO • Site Manager	• Maintain firefighting equipment on site. • Prohibit open fires. • Conduct fire awareness briefings. • Comply with farm fire-control rules.	Exploration
Greenhouse gas emissions	Emissions from fuel combustion by vehicles, generators and drilling equipment.	• Contribution to climate change. • Local air emissions.	Environmental	Short term	• ECO • Site Manager	• Maintain equipment for fuel efficiency. • Minimize unnecessary vehicle movements. • Use solar power where feasible for	Exploration

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						camps and lighting.	
Waste generation	General waste, hazardous waste (oils, lubricants), drill cuttings and wastewater.	• Soil and groundwater contamination risk. • Visual pollution.	Environmental	Short term	• ECO • Site Manager	• Segregate waste streams. • Store waste in labelled containers. • Dispose at approved facilities. • Implement spill-prevention measures.	Exploration
Health and safety risks	Occupational hazards including slips, falls, heat stress and equipment-related injuries.	• Injuries to workers. • Reduced productivity.	Health & Safety	Short term	• ECO • Site Manager	• Provide PPE and training. • Conduct toolbox talks. • Install safety signage. • Ensure first-aid and emergency procedures are in place.	Exploration
Land use disturbance	Temporary restriction of grazing and access on farms.	• Short-term inconvenience to landowners. • Disruption of grazing patterns.	Socio-economic	Short term	Site Manager	• Coordinate access with landowners. • Keep access routes open where possible. • Rehabilitate all disturbed areas.	Exploration

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Employment creation (Positive)	Temporary employment opportunities during exploration.	• Increased household income. • Skills exposure.	Socio-economic	Short term	Site Manager	• Prioritize local labour where feasible. • Communicate job opportunities transparently.	Exploration
Local procurement (Positive)	Purchase of goods and services from Karibib and surrounding areas.	• Support to local businesses. • Economic stimulation.	Socio-economic	Short term	Site Manager	• Source fuel, accommodation and services locally where feasible.	Exploration
Heritage chance finds	Accidental discovery of archaeological or cultural materials.	• Damage to heritage resources.	Cultural / Environmental	Short term	• ECO • Site Manager	• Implement chance-find procedure. • Stop work and notify NHC if discoveries occur.	Exploration

1.5 ENVIRONMENTAL MONITORING PLAN

Environmental monitoring is essential to verify that the mitigation measures outlined in this Environmental Management Plan (EMP) are effectively managing the environmental and socio-economic impacts associated with the exploration activities on EPL 10248 in the Karibib District, Erongo Region. Monitoring also enables early identification of unforeseen impacts so that corrective actions can be implemented promptly.

All monitoring records—including field inspection checklists, site diaries, incident and spill reports, waste registers, grievance logs, and photographic evidence—must be maintained by the project team and made available to the Environmental Commissioner or other competent authorities upon request.

Prior to commencement of exploration activities, the Exploration Manager, in consultation with the Environmental Control Officer (ECO), must prepare a site-specific Environmental Monitoring Plan. This plan must clearly define:

- authorised access routes, drill sites, laydown areas and temporary camps;
- locations of chemical toilets and waste storage areas;
- hydrocarbon and drilling-fluid handling procedures;
- dust suppression and traffic control measures;
- heritage chance-find procedures;
- emergency response arrangements; and
- a schedule of monitoring actions and reporting responsibilities

The environmental monitoring programme must strictly align with the requirements of the EIA Report, this EMP, and any conditions contained in the Environmental Clearance Certificate.

Table 2-3: Environmental Monitoring Plan for Exploration Activities on EPL 10248

Monitoring Aspect	Key Monitoring Actions	Phase	Frequency	Responsibility
Vegetation clearance and site disturbance	• Confirm clearing is restricted to authorised drill pads, tracks and camps. • Verify protected plant species are avoided. • Monitor disturbed areas for invasive or bush-encroacher establishment.	Pre-mobilisation / Exploration / Rehabilitation	• Once-off pre-mobilization check • Bi-weekly during exploration	ECO / Site Manager
Soil erosion and surface stability	• Inspect disturbed areas for erosion, especially after rainfall. • Confirm pits are backfilled and compacted areas loosened. • Verify rehabilitation is completed satisfactorily.	Exploration / Rehabilitation	• Bi-weekly • After rainfall events	ECO
Surface water and runoff	• Inspect drill sites and access routes for unnatural runoff or ponding. • Ensure no sediment or drilling fluids enter drainage lines, pans or farm reservoirs.	Exploration	• After rainfall • Bi-weekly inspections	ECO
Groundwater protection	• Verify proper containment of drilling fluids. • Inspect hydrocarbon storage areas for leaks or seepage. • Ensure no wastewater discharge to ground.	Exploration	• Bi-weekly • Daily visual checks by supervisor	ECO / Site Supervisor
Air quality and dust	• Monitor dust levels from vehicles and drilling activities.	Exploration	• Bi-weekly • Increased checks during windy conditions	ECO / Site Manager

Monitoring Aspect	Key Monitoring Actions	Phase	Frequency	Responsibility
	• Confirm implementation of speed limits and dust suppression where needed.			
Waste management	• Inspect waste storage areas for segregation and containment. • Verify waste removal to approved facilities. • Check availability of spill kits.	Exploration	• Bi-weekly	ECO
Hydrocarbon and chemical spill control	• Inspect vehicles, generators and drilling equipment for leaks. • Confirm spills are cleaned immediately and recorded. • Verify use of drip trays and bunding.	Exploration	• Daily visual checks • Bi-weekly ECO inspections	Site Supervisor / ECO
Health, safety and farm access	• Monitor adherence to farm speed limits. • Confirm gates, fences and access routes are respected. • Ensure workers remain within authorized areas.	Exploration	• Daily supervision • Bi-weekly ECO inspections	Site Manager / ECO
Noise levels	• Verify noisy activities are limited to daytime hours. • Record and respond to any complaints from landowners or lodges.	Exploration	• Bi-weekly	ECO
Heritage and archaeological chance-finds	• Confirm all staff are briefed on the Chance-Find Procedure. • Monitor sensitive areas such as rocky ridges and drainage lines. • Ensure immediate work stoppage and reporting if finds occur.	Exploration	• Ongoing • During site inspections	ECO / Site Manager

Monitoring Aspect	Key Monitoring Actions	Phase	Frequency	Responsibility
Stakeholder engagement and grievances	• Maintain communication with affected landowners. • Record complaints or concerns in a Grievance Register. • Track and close out grievances promptly.	Exploration	• Ongoing • Reviewed bi-weekly	Site Manager / ECO
Rehabilitation and closure	• Confirm disturbed areas are rehabilitated to pre-disturbance condition. • Ensure no residual waste, hazards or erosion remain.	Rehabilitation / Post-rehabilitation	• Weekly during rehabilitation • One follow-up inspection after 3 months	ECO

2 CONCLUSION AND RECOMMENDATIONS

The Environmental Impact Assessment (EIA) for the proposed exploration activities on Exclusive Prospecting Licence (EPL) 10248, located within the Karibib District of the Erongo Region, has been undertaken in accordance with the Environmental Management Act (EMA), No. 7 of 2007, and the Environmental Impact Assessment Regulations (GN 30 of 2012). All relevant national legislation, policies, and guidelines were reviewed and applied to ensure a robust, transparent, and legally compliant assessment process.

The assessment indicates that the proposed exploration activities—comprising desktop studies, reconnaissance surveys, geological mapping, geochemical and geophysical surveys, establishment of limited access tracks, and exploratory drilling—are expected to result in low to moderate environmental impacts, provided that the prescribed mitigation and monitoring measures are fully implemented. The majority of potential impacts are localised, short-term, and reversible, particularly those associated with vegetation disturbance, soil exposure, dust and noise generation, waste management, groundwater protection, and temporary disruption to farming operations.

Positive socio-economic benefits are anticipated, including short-term employment opportunities, local procurement of goods and services from Karibib, enhanced geological knowledge of the area, and potential longer-term economic opportunities should exploration results warrant further development. No significant or irreversible impacts on biodiversity, water resources, heritage assets, or surrounding land uses are expected, provided that all exploration activities are conducted in strict accordance with the Environmental Management Plan (EMP).

All identified potential negative impacts have been systematically addressed through a comprehensive EMP, which sets out clear mitigation measures, monitoring requirements, roles and responsibilities, and reporting procedures. Effective implementation of the EMP is essential to ensuring ongoing compliance with environmental legislation, safeguarding environmental integrity, and maintaining constructive engagement with landowners and other stakeholders.

Given the low-impact nature of the proposed exploration programme, the temporary footprint of activities, and the feasibility of effective mitigation and rehabilitation measures, it is concluded that the project can proceed without causing significant environmental harm.

Recommendation

It is therefore recommended that the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism (MEFT) grant an Environmental Clearance Certificate (ECC) for the proposed exploration activities on EPL 10248, subject to full and continuous implementation of the Environmental Management Plan (EMP) and ongoing compliance with all applicable environmental legislation, licence conditions, and regulatory requirements.

3 REFERENCES

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APPENDICES

Appendix A: Public Consultation Documents

1. Background Information Document
2. Newspaper Adverts
3. Site Notice
4. Meeting Attendance Register
5. Meeting Presentation
6. Questionnaires

Appendix B: Site Information

1. EPL Ownership
2. Locality Map

Appendix C: Consultancy Team resumes