

ENVIRONMENTAL IMPACT ASSESSMENT

FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 10848,10849 & 10850 IN OKAHANDJA & OMARURU DISTRICTS, OTJOZONDJUPA & ERONGO REGION



ENVIRONMENTAL MANAGEMENT PLAN FINAL VERSION ECC APPLICATION: 6809 DECEMBER 2025



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1.1 INTRODUCTION

The proposed exploration activities on Exclusive Prospecting Licences (EPLs) 10848, 10849 and 10850, located within the Karibib–Omaruru area spanning the Erongo and Otjozondjupa Regions, have the potential to result in a range of localised, short-term biophysical and socio-economic impacts. As identified through the Environmental Impact Assessment (EIA), these potential impacts are primarily associated with:

- limited vegetation clearing at drill pads and along temporary access routes;
- localised soil disturbance and compaction;
- dust and noise generation from vehicle movement, drilling and support equipment;
- potential risks to groundwater quality arising from accidental fuel spills or drilling-related activities;
- chance-finds of heritage or archaeological resources; and
- temporary socio-economic interactions linked to exploration logistics, workforce presence and local service use.

Given the temporary, low-intensity and exploratory nature of the proposed activities, most potential impacts are expected to be limited in spatial extent, reversible, and manageable through the application of standard environmental management and good industry practice measures.

This Environmental Management Plan (EMP) sets out the site-specific environmental and social management measures that must be implemented by the proponent throughout all stages of exploration on EPLs 10848, 10849 and 10850. 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 and enforceable framework to ensure that exploration activities are conducted in a manner that:

- protects the natural environment and sensitive ecological features;
- safeguards farming livelihoods and existing land uses; and
- ensures compliance with statutory requirements, licence conditions and recognised best practice.

1.1.1 Purpose of the EMP

The purpose of this EMP is to provide a structured, implementable and enforceable framework for environmental and social management during the exploration phase on EPLs 10848, 10849 and 10850.

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 EPLs 10848, 10849 and 10850, including, but not limited to:

- use of existing access tracks and limited temporary access creation where required;
- geological mapping, reconnaissance surveys and field sampling;
- trenching, pitting and drilling operations;
- establishment and operation of temporary field camps, drill pads and laydown areas; and
- movement of vehicles, equipment and machinery within the licence areas.

The EMP further addresses potential impacts on environmental and socio-economic receptors within and surrounding the EPLs, including:

- vegetation communities and wildlife habitats characteristic of central Namibian savanna and bush-encroached landscapes;
- surface and groundwater resources, including ephemeral drainage lines, pans and boreholes;
- soil resources susceptible to erosion, compaction and disturbance;
- heritage and archaeological resources, managed through a formal chance-find procedure; and

- local landowners, farm residents, workers and other lawful land users.

The EMP outlines the roles and responsibilities, mitigation and management measures, health and safety requirements, monitoring procedures and reporting obligations necessary to ensure effective environmental protection and regulatory 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
Cancun Energy cc	Responsible to enforce EMP implementation to contractors
Environmental Control Officer	<ul style="list-style-type: none"> • 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. • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

ROLE	ENVIRONMENTAL RESPONSIBILITIES
	<ul style="list-style-type: none">• Ensure any complaints are passed onto the management within 24 hours of receiving the complaint.
Workers	<ul style="list-style-type: none">• 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.	<ul style="list-style-type: none"> Disturbance to workers. Temporary disturbance to farm residents and livestock. Short-term displacement of wildlife. 	Environmental	Short term	<ul style="list-style-type: none"> Environmental Control Officer (ECO) Site Manager 	<ul style="list-style-type: none"> Limit noisy activities to daytime hours where feasible. Maintain vehicles and equipment to minimise 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.	<ul style="list-style-type: none"> Respiratory irritation to workers. Nuisance to nearby farm operations. Reduced air quality and visibility. 	Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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
						<ul style="list-style-type: none"> Minimise disturbance footprint. 	
Soil disturbance & excavations	Localised soil disturbance at drill pads, sumps and access tracks.	<ul style="list-style-type: none"> Safety hazards for people and animals. Temporary loss of topsoil. 	Safety / Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Localised habitat disturbance. Temporary loss of vegetation cover. Potential disturbance to protected plant species. 	Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Temporary displacement of fauna. Increased stress to livestock and wildlife. 	Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Damage to grazing land. Threat to farm infrastructure and wildlife. 	Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Contribution to climate change. Local air emissions. 	Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> Maintain equipment for fuel efficiency. Minimise 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.	<ul style="list-style-type: none"> Soil and groundwater contamination risk. Visual pollution. 	Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Injuries to workers. Reduced productivity. 	Health & Safety	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Short-term inconvenience to landowners. Disruption of grazing patterns. 	Socio-economic	Short term	Site Manager	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Increased household income. Skills exposure. 	Socio-economic	Short term	Site Manager	<ul style="list-style-type: none"> Prioritise local labour where feasible. Communicate job opportunities transparently. 	Exploration
Local procurement (Positive)	Purchase of goods and services from Karibib, Omaruru and surrounding service centres.	<ul style="list-style-type: none"> Support to local businesses. Economic stimulation. 	Socio-economic	Short term	Site Manager	<ul style="list-style-type: none"> Source fuel, accommodation and services locally where feasible. 	Exploration
Heritage chance finds	Accidental discovery of archaeological or cultural materials.	<ul style="list-style-type: none"> Damage to heritage resources. 	Cultural / Environmental	Short term	<ul style="list-style-type: none"> ECO Site Manager 	<ul style="list-style-type: none"> Implement chance-find procedure. Stop work and notify NHC if discoveries occur. 	Exploration

1.5 ENVIRONMENTAL MONITORING PLAN

Environmental monitoring is a critical component of the Environmental Management Plan (EMP) and is intended to verify that the mitigation and management measures prescribed for the proposed exploration activities on EPLs 10848, 10849 and 10850 are effectively implemented and functioning as intended. Monitoring further enables the early detection of unforeseen or unanticipated environmental and socio-economic impacts, allowing for timely corrective action to be taken before impacts escalate.

Environmental monitoring will be undertaken throughout the exploration phase across all licence areas, which span the Karibib–Omaruru area within the Erongo and Otjozondjupa Regions. Monitoring activities will focus on key impact pathways associated with exploration, including land disturbance, vegetation clearing, dust and noise generation, water use, waste management, health and safety, and interactions with surrounding farming operations and landowners.

All monitoring records must be systematically maintained by the project team. These records shall include, but are not limited to:

- site inspection and compliance checklists;
- daily site diaries and activity logs;
- incident, accident and spill reports;
- waste manifests and waste-tracking registers;
- grievance and stakeholder communication logs; and
- dated photographic records of site conditions before, during and after activities.

Such records must be made available to the Environmental Commissioner, Ministry of Environment, Forestry and Tourism (MEFT), or any other competent authority upon request. Prior to the commencement of any site-based exploration activities, the Exploration Manager, in consultation with the appointed Environmental Control Officer (ECO), shall prepare a site-specific Environmental Monitoring Plan applicable to each active exploration area within EPLs 10848, 10849 and 10850. This site-specific plan must clearly define:

- authorised access routes, drill pad locations, laydown areas and any temporary camps;
- locations of chemical toilets, waste-storage areas and refuelling points;
- procedures for the handling, storage and disposal of hydrocarbons, drilling fluids and chemicals;

- dust-suppression measures and traffic-management controls;
- heritage and archaeological chance-find procedures;
- emergency preparedness and response arrangements, including spill response and fire control; and
- a schedule of monitoring actions, inspection frequencies and reporting responsibilities.

The environmental monitoring programme must be implemented in strict alignment with the approved EIA Report, this EMP, and all conditions contained in the Environmental Clearance Certificate (ECC). Where monitoring identifies non-compliance or emerging risks, corrective measures must be implemented immediately and documented accordingly.

Through the consistent application of this monitoring framework, the proponent will ensure that exploration activities across all three EPLs remain environmentally responsible, socially acceptable, and fully compliant throughout the duration of the exploration phase.

Table 2-3: Environmental Monitoring Plan for Exploration Activities on EPLs 10848, 10849 and 10850

Monitoring Aspect	Key Monitoring Actions	Phase	Frequency	Responsibility
Vegetation clearance and site disturbance	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Once-off pre-mobilisation check Bi-weekly during exploration 	ECO / Site Manager
Soil erosion and surface stability	<ul style="list-style-type: none"> Inspect disturbed areas for erosion, especially after rainfall. Confirm pits are backfilled and compacted areas loosened. Verify rehabilitation is completed satisfactorily. 	Exploration / Rehabilitation	<ul style="list-style-type: none"> Bi-weekly After rainfall events 	ECO
Surface water and runoff	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> After rainfall Bi-weekly inspections 	ECO
Groundwater protection	<ul style="list-style-type: none"> Verify proper containment of drilling fluids. Inspect hydrocarbon storage areas for leaks or seepage. Ensure no wastewater discharge to ground. 	Exploration	<ul style="list-style-type: none"> Bi-weekly Daily visual checks by supervisor 	ECO / Site Supervisor
Air quality and dust	<ul style="list-style-type: none"> Monitor dust levels from vehicles and drilling activities. 	Exploration	<ul style="list-style-type: none"> Bi-weekly Increased checks during windy conditions 	ECO / Site Manager

Monitoring Aspect	Key Monitoring Actions	Phase	Frequency	Responsibility
	<ul style="list-style-type: none"> Confirm implementation of speed limits and dust suppression where needed. 			
Waste management	<ul style="list-style-type: none"> Inspect waste storage areas for segregation and containment. Verify waste removal to approved facilities. Check availability of spill kits. 	Exploration	<ul style="list-style-type: none"> Bi-weekly 	ECO
Hydrocarbon and chemical spill control	<ul style="list-style-type: none"> Inspect vehicles, generators and drilling equipment for leaks. Confirm spills are cleaned immediately and recorded. Verify use of drip trays and bunding. 	Exploration	<ul style="list-style-type: none"> Daily visual checks Bi-weekly ECO inspections 	Site Supervisor / ECO
Health, safety and farm access	<ul style="list-style-type: none"> Monitor adherence to farm speed limits. Confirm gates, fences and access routes are respected. Ensure workers remain within authorised areas. 	Exploration	<ul style="list-style-type: none"> Daily supervision Bi-weekly ECO inspections 	Site Manager / ECO
Noise levels	<ul style="list-style-type: none"> Verify noisy activities are limited to daytime hours. Record and respond to any complaints from landowners or lodges. 	Exploration	<ul style="list-style-type: none"> Bi-weekly 	ECO
Heritage and archaeological chance-finds	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Ongoing During site inspections 	ECO / Site Manager

Monitoring Aspect	Key Monitoring Actions	Phase	Frequency	Responsibility
Stakeholder engagement and grievances	<ul style="list-style-type: none"> Maintain communication with affected landowners. Record complaints or concerns in a Grievance Register. Track and close out grievances promptly. 	Exploration	<ul style="list-style-type: none"> Ongoing Reviewed bi-weekly 	Site Manager / ECO
Rehabilitation and closure	<ul style="list-style-type: none"> Confirm disturbed areas are rehabilitated to pre-disturbance condition. Ensure no residual waste, hazards or erosion remain. 	Rehabilitation / Post-rehabilitation	<ul style="list-style-type: none"> 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 Licences (EPLs) 10848, 10849 and 10850, located within the Omaruru District of the Erongo Region and the Okahandja District of the Otjozondjupa Region, has been undertaken in accordance with the requirements of 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 regulatory guidelines have been reviewed and applied to ensure a comprehensive, transparent, and legally compliant assessment process.

The assessment indicates that the proposed exploration activities—comprising desktop studies, reconnaissance surveys, geological mapping, geochemical and geophysical investigations, establishment and use of existing access tracks, limited upgrading where necessary, and exploratory drilling—are expected to result in low to moderate environmental and socio-economic 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 surrounding commercial farming operations.

Positive socio-economic benefits are anticipated across both the Erongo and Otjozondjupa Regions, including short-term employment opportunities, local procurement of goods and services from nearby towns such as Omaruru, Karibib, Okahandja and surrounding service centres, and the generation of improved geological knowledge of the area. These benefits, while limited in scale at the exploration stage, are locally meaningful within predominantly farming-based economies. No significant or irreversible impacts on biodiversity, water resources, heritage assets, or existing land uses are expected, provided that all activities are undertaken in strict accordance with the Environmental Management Plan (EMP).

All identified potential adverse impacts have been systematically addressed through a comprehensive EMP, which sets out clear mitigation measures, monitoring requirements, roles and responsibilities, and reporting obligations applicable to all three EPLs. Effective implementation of the EMP is essential to ensure continued compliance with environmental legislation, protection of environmental and socio-economic receptors, and the maintenance of constructive relationships with landowners and other Interested and Affected Parties.

Given the temporary nature of the proposed exploration programme, the limited spatial footprint of activities, and the feasibility of effective mitigation and rehabilitation measures, it is concluded that the proposed exploration activities on EPLs 10848, 10849 and 10850 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 EPLs 10848, 10849 and 10850, subject to:

- Full and continuous implementation of the approved Environmental Management Plan (EMP);
- Compliance with all applicable environmental legislation, licence conditions, and regulatory requirements; and
- Ongoing engagement with landowners and relevant stakeholders throughout the exploration phase.

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