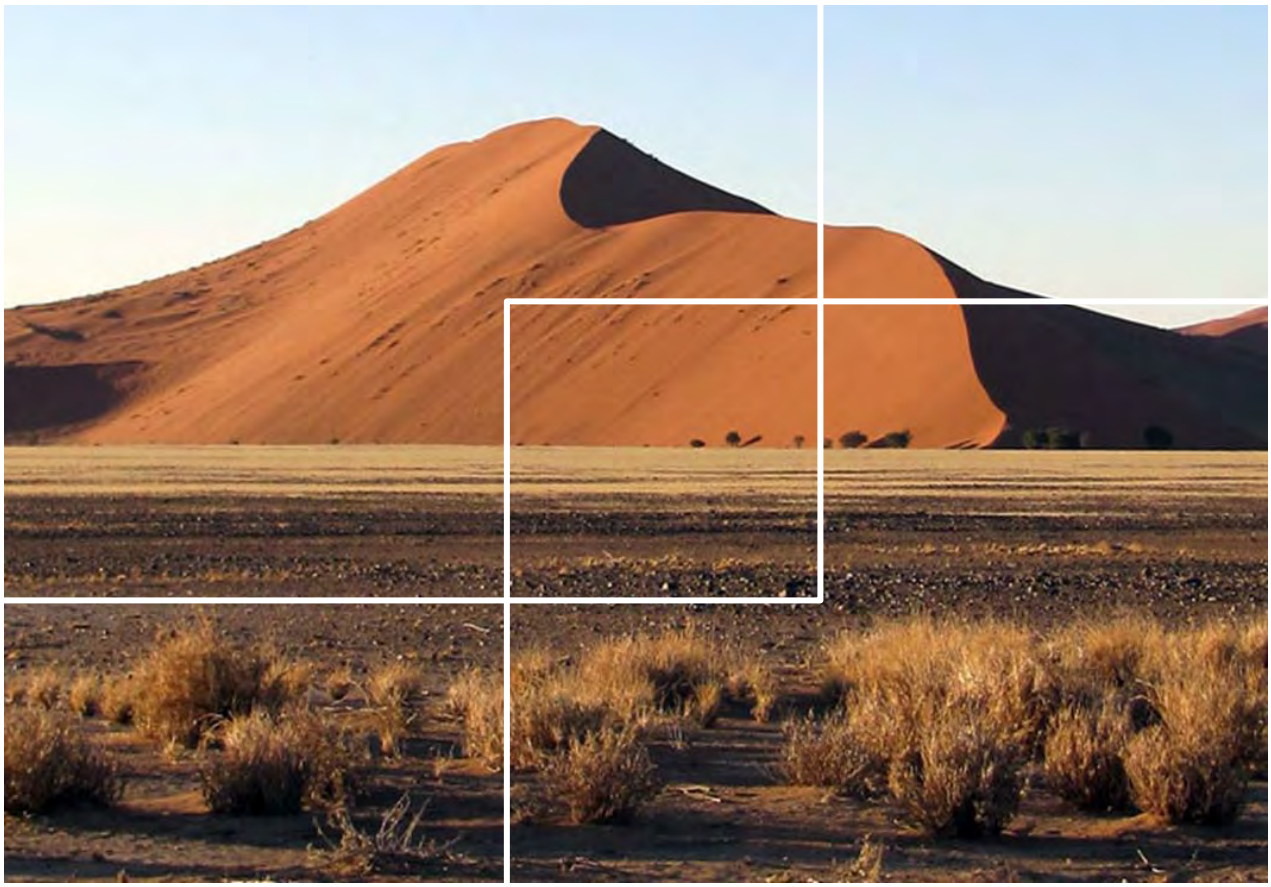

elevate uranium
carbon free energy

Submitted to: Marenica Ventures (Pty) Ltd.
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REPORT:
EXPLORATION ACTIVITIES ON EPL 8098 – ENVIRONMENTAL MANAGEMENT PLAN

PROJECT NUMBER: ECC-79-44-REP-04-A

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DISCLAIMER

The report has been prepared by Environmental Compliance Consultancy Pty Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the Project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the Project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed.[1]

[1] J.Bezuidenhout is seconded to Elevate for in country company management duties.

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DEFINITIONS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
ASTM	American Society for Testing and Materials
ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EMS	environmental management system
EPL	Exploration Prospecting Licence
GPS	Global Positioning System
GIS	Geographic Information Systems
HR	Human Resources
HSE	Health, Safety and Environmental
Km/h	Abbreviations used for kilometres per hour a unit of measurement using length in kilometres and time in hours
m	abbreviation for meter, used to indicate height or length in metric units.
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
MSDS	Material Safety Data Sheet (MSDS) is a document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product.
NHC	National Heritage Council
OHSE	Operational, health, safety and environment
PPE	Personal Protective Equipment
SOPs	Standard Operating Procedures
ToRs	Terms of Reference
U-pgrade™	Uranium concentration process developed by Elevate Uranium

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Environmental Compliance Consultancy (ECC) was retained by Elevate Uranium (Pty) Ltd (hereafter referred to as "The Proponent") to conduct an environmental and social impact assessment (ESIA) for exploration activities within Exclusive Prospecting Licence (EPL) 8098. The EPL8098 is a licence granted for rare and base, precious metal and industrial minerals. The ESIA was carried out in terms of the Environmental Management Act No. 7 of 2007 and its regulations of 2012. An environmental clearance certificate application was submitted to the competent authority (i.e., Ministry of Mines & Energy - MME) and the Ministry of Environment, Forestry and Tourism (MEFT) for a record of decision.

Elevate Uranium Limited is an Australian Securities Exchange (ASX) Listed company. The company intends to develop mineral projects from exploration through to mining. Elevate Uranium developed a uranium concentration process (**U-pgrade^{TM}**) that is unique and ground-breaking, lowering the extraction cost of uranium and significantly reducing potential environmental effects associated with the reduced mass of ore to be leached. This **U-pgrade^{TM}** process can be applied to surficial uranium deposits of which Elevate Uranium is exploring. Elevate Uranium is seeking to develop uranium mining opportunities through exploration activities for Nuclear Fuel Minerals in the Erongo Region.

Marenica Ventures (Pty) Ltd (Marenica Ventures) is a wholly owned subsidiary of Elevate Uraniuan Limited (Elevate Uranium). Marenica Ventures holds the Exclusive Prospecting Licence (EPL) for the proposed project the (referred to as "the Project" herein). The project is located within exploration licence prospecting licence EPL 8098 and the proponent proposes to undertake mineral exploration activities specifically for nuclear fuels. The EPL is located north of Henties Bay in the Erongo Region. The EPL can be accessed via the C35 100km from Uis and on the C34 road 13km from Henties Bay.

ECC has compiled this environmental management plan (EMP) in terms of the Environmental Management Act (EMA) of 2007 and its regulations of 2012. The purpose of this EMP is to support the full environmental impact assessment (EIA) report.

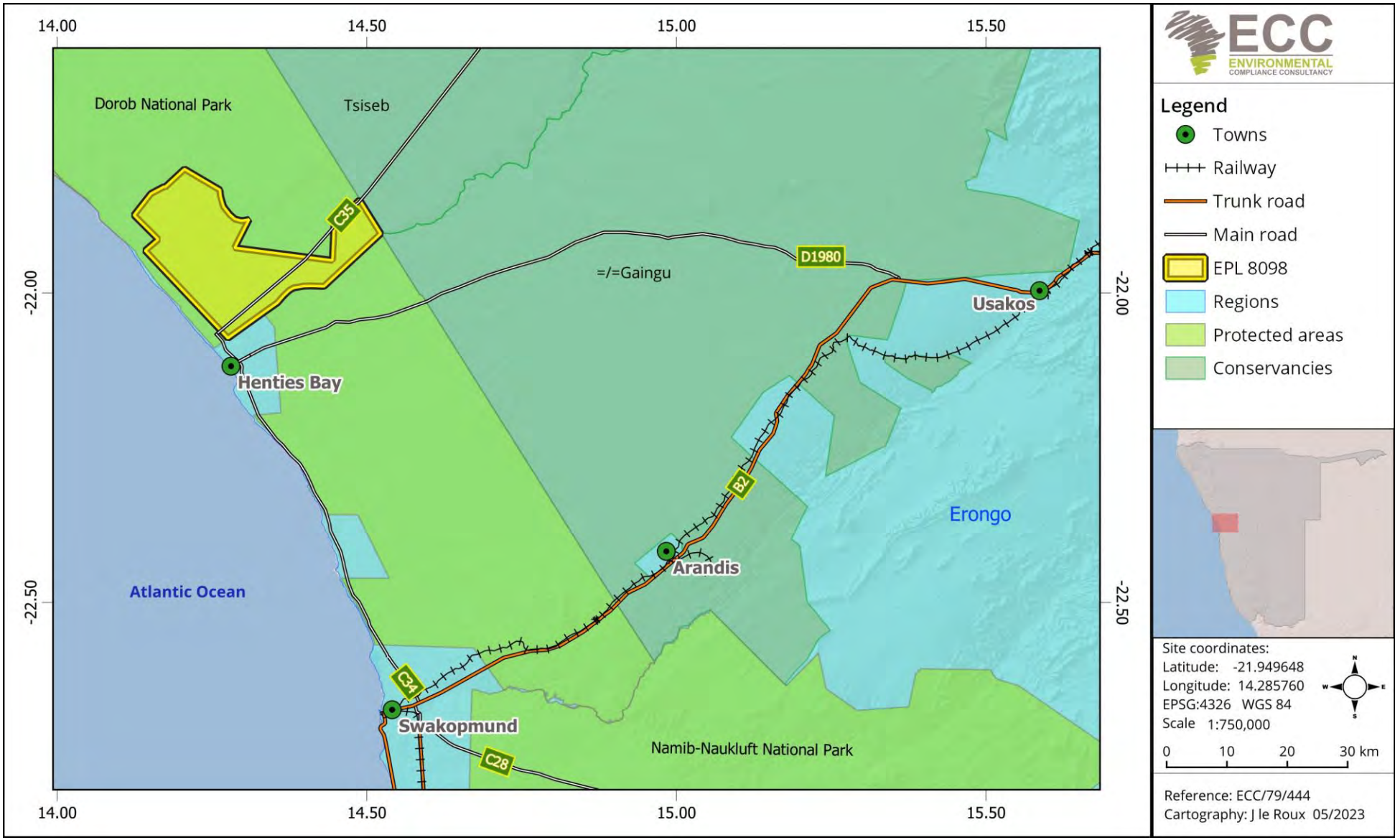

Figure 1: Locality map showing the location of the proposed exploration activities on EPL 8098

1.2 ENVIRONMENTAL REGULATORY REQUIREMENTS

The proposed Project is a listed activity as stipulated in the Environmental Management Act, No. 7 of 2007 and its Regulations, promulgated in 2012. An environmental scoping report with impact assessment and this environmental management plan (EMP) are required to be submitted as part of the application to support the decision-making process for issuing an environmental clearance certificate.

1.3 PURPOSE AND SCOPE OF THIS REPORT

The preliminary EMP (hereafter referred to as the EMP) provides a logical framework, mitigation measures and management strategies for the activities associated with the proposed Project. This ensures that the potential environmental impacts are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled. Outlined in the EMP are the protocols, procedures and roles and responsibilities to ensure the management arrangements are effectively and appropriately implemented.

The EMP forms an appendix to the scoping report and is based on the findings of the impact assessments carried out to date. The scoping report should be referred to for further information on the proposed Project, description of the receiving environment, impact assessment methodology, terms of reference (ToR), applicable legislation, and impact assessment findings.

This EMP is a live document and shall be reviewed at predetermined intervals, and or updated during the EIA process when or if the scope of work alters, or when further data or information is added. All personnel working on the Project will be legally required to comply with the requirements set out in the EMP that is approved by the competent authorities and Ministry of Environment, Forestry and Tourism (MEFT).

The scope of this EMP includes all activities associated with the exploration activities undertaken.

1.4 MANAGEMENT OF THIS EMP

The proponent, will hold the environmental clearance certificate (ECC) for the proposed project and will be responsible for the implementation and management of this EMP. The implementation and management of this EMP including the compliance monitoring / auditing, will be undertaken through daily duties and activities, as well as monthly inspections.

1.5 LIMITATIONS, UNCERTAINTIES, AND ASSUMPTIONS RELATED TO THIS EMP

This EMP does not include measures for compliance with statutory occupational health and safety requirements. This will be provided in the safety management plan to be developed by the Proponent.

Where there is any conflict between the provisions of this EMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project

approval conditions, permits, standards, guidelines, and relevant laws), the contract should be amended and the statutory requirements take precedence.

The information contained in this EMP is based on the project description as provided in the scoping report. Where the design or operation method is changed, this EMP may require updating and further impact assessment be undertaken. The changes to the activities, the updated impact assessment findings and the updated EMP will need to submit to the competent authority and amendment requested. In this case a new ECC need to be issued.

1.6 ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Compliance Consultancy (ECC) (Reg. No. CRN 2022/0593) has prepared this EMP on behalf of the proponent.

This report has been authored by employees of ECC, who have no material interest in the outcome of this report, nor do any of the ECC team have any interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this report. ECC is independent from the proponent and has no vested or financial interest in the project, except for fair remuneration for professional fees rendered based upon agreed commercial rates. Payment of these fees is in no way contingent on the results of this report or the assessment, or a record of decision issued by Government. No member or employee of ECC is, or is intending to be, a director, officer, or any other direct employee of Marenica Ventures (Pty) Ltd. No member or employee of ECC has, or has had, any shareholding in Marenica Ventures (Pty) Ltd.

All compliance and regulatory concerns regarding this EMP should be forwarded by email or posted to the following address:

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PO Box 91193, Klein Windhoek, Namibia
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2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

This EMP provides measures, guidelines, and procedures for managing and mitigating potential environmental impacts. The EMP also indicates monitoring and reporting guidelines and sets responsibilities for those carrying out management and mitigation measures.

2.1 OBJECTIVES AND TARGETS

Environmental objectives and targets have been developed so that exploration activities can minimise potential impacts on the environment, as far as possible.

Environmental objectives for the Project are as follows:

- Aim for zero pollution incidents.
- Minimise vegetation clearing and earthworks.
- Minimise impact on local and regional groundwater users
- Protect local flora and fauna, and
- Use natural resources effectively and efficiently.

2.2 ORGANISATIONAL STRUCTURE, ROLES, AND RESPONSIBILITIES

The proponent shall provide a Project team to oversee and undertake the preparation and exploration activities. This team will be composed of the proponent's personnel and contractors. A nominated role shall be identified to ensure the management and implementation of this EMP is carried out throughout the Project Life. The Proponent shall be responsible for:

- Ensuring all members of the project team, including contractors, comply with the procedures set out in this EMP.
- Ensuring that all persons are provided with sufficient training, supervision, and instruction to fulfil this requirement.
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.
- Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this EMP, and meet the responsibilities listed above.

Table 1 lists the roles and responsibilities allocated to different management levels in the company and specific personnel.

Table 1 – Roles and responsibilities

ROLE	RESPONSIBILITIES AND DUTIES
Proponent	– Responsible for the overall management and implementation of the EMP. – Ensure environmental policies are drafted/updated and communicated to all personnel throughout the company. – Responsible for providing the resources required to effectively run operations and comply with the EMP. – Appoint all managers needed to ensure effective running of operations, and – Ensure systems for proper induction and training of personnel and contractors are in place.
Exploration management	– Manage all activities on the exploration project. – Monitor daily operations and ensure systems are in place for implementation of the EMP. – Maintain a 'community' (i.e. national park management) issues and concerns register and keep records of complaints. – Ensure corrective action are taken and communicated to complainants, and – Maintain up to date records of employees who have completed training and induction.
Site manager	– Ensure that all contract workers, sub-contractors, and visitors to the site are aware of the requirements of this EMP, relevance to their roles and always adhere to this EMP. – Report any non-compliance or accidents. – Receive, record and respond to complaints. – Ensure adequate resources (equipment and personnel) are available for the implementation of the EMP. – Ensure safe and environmentally sound operations. – Responsible for the management, maintenance, and revisions of this EMP.
HSE (Health, safety, and Environment) Appointed Person/ Environmental Manager	– Devise, implement and maintain the Project's environmental management system (EMS). – Draft and update specific environmental procedures for operational exploration activities. – Ensure on-site induction training is relevant and address issues from this EMP. – Conduct all internal environmental audits and inspections and report findings to relevant personnel.

ROLE	RESPONSIBILITIES AND DUTIES
	– Check the implementation of corrective action for incidents and record complaints. – Ensure all environmental monitoring and reporting is done. – Compile the Bi-annual environmental report in readiness for submission to the Environmental Commissioner
Employees	– Adhere to measures set out in the EMP. – Ensure they have undertaken a site induction. – Report any operations or conditions which deviate from the EMP as well as any non-compliant issues or accidents to the environmental manager.

2.3 CONTRACTORS

Any contractors hired during the exploration activities of the operations and for the project duration shall be compliant with this EMP and shall be responsible for the following:

- Undertaking activities in accordance with this EMP as well as relevant policies, procedures, management plans, statutory requirements, and contract requirements.
- Implementing appropriate environmental and safety management measures.
- Reporting of environmental issues, including actual or potential environmental incidents and hazards, to the site manager.
- Ensuring appropriate corrective or remedial action is taken to address all environmental hazards and incidents reported by employees and subcontractors.

2.4 EMPLOYMENT

The Proponent and all contractors shall comply with the requirements of the Republic of Namibia's regulations for Labour, Health and Safety, and any amendments to these regulations. The following shall be complied with:

- In liaison with local government and community authorities, the Proponent shall ensure that local people have access to information about job opportunities and are considered for construction/maintenance contract employment positions.
- The number of job opportunities shall be made known together with the associated skills and qualifications.
- The maximum length of time the job is likely to last for shall be indicated.
- Foreign workers with no proof of work permits shall not be hired.
- Every effort shall be made to recruit from the group of unemployed workers living in the surrounding area.

2.5 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

An environmental review of the proposed Project has been completed to identify all the commitments and agreements made. A list of environmental commitments and risks must be

produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment during the exploration activities.

Table 2 provides a list of environmental risks and issues, as well as associated mitigations (as derived from the EIA) and monitoring measures, and the roles responsible for facilitating compliance. It will be subject to regular review by the Manager and updated when necessary. The Exploration Manager and Environmental Manager will use this register to undertake monthly inspections (see next section) to ensure the project is compliant with this EMP.

Table 2 – A list of environmental risks and issues, as well as associated mitigation and monitoring measures

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Access and site preparation	Disruption of national park operations	– Compliance with all applicable laws and agreements.	– OHSE Audits and inspections. – Daily	– Site Manager – HSE appointed person /Environmental manager
	Conflict with national park management	– Ensure documented permission to enter national park is obtained from authorising body. – Existing water points and feeding areas need to be left unaffected, – Use existing roads for access to avoid new tracks and create cut lines with due regard to existing land use activities in the area. – Ensure appropriate supervision of all activities. – Develop and implement an operation manual or procedures to work in the National Park and implement monitoring programs thereafter. – Maintain continuous engagement with park management to identify any concerns or issues and implement appropriate mitigation and management measures that were agreed upon. – Accidents and incidents need to be reported to the exploration manager and recorded in an incident register.	– OHSE Audits and inspections. – Daily	– Site Manager
	Limiting access to sites	– Compliance with all applicable laws and agreements	– OHSE Audits and inspections. – Daily	– Site Manager – HSE appointed person /Environmental manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	Potential damage to cultural heritage sites	– Implement a Chance Find Procedure – Raise awareness about possible heritage finds. – Report all finds that could be of heritage importance. – In case archaeological remains are uncovered, cease activities and the exploration manager must assess and demarcate the area. – Exploration manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary and inform ECC with GPS position. – If needed, further investigation may be requested for a professional assessment and the necessary protocols of the Chance Find Procedure must be followed, – An archaeologist will evaluate the significance of the remains and identify appropriate action, for example, record and remove, relocate or leave site as is (depending on the nature and value of the remains), – Inform the police if the remains are human. – Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.	– Chance finds procedure and records.	– Site Manager – Exploration Manager
Socio-economic	Job creation for locals	– Maximise local employment and local business opportunities. – Enhance the use of local labour and local skills as far as reasonably possible.	– HR recruitment policies and procedures.	– HR Manager
Groundwater	Groundwater quality	– Good housekeeping. – Training through toolbox talks and induction. – Ensure drill pads and spill kits are in place.	– OHSE Audits and inspections. – Daily	– Site Manager – Exploration Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil. – Consider alternative sites when the water table is too high. – Drill system will be fitted with sumps to direct any accidental spills into containment areas. – Accidental spills and leaks (including absorption material) to be cleaned as soon as possible. – Store bulk fuel in adequate containment areas (non-porous surface and bunded). – No damaged containers may be used. – Major spills to be reported to the authorities. – Where possible, water from existing water sources shall be used as opposed to drilling new boreholes. – Refuelling will be done in areas with adequate spill prevention measures in place.		– HSE appointed person /Environmental manager
Water	Wastewater can contaminate surface and groundwater.	– Wastewater discharges will be contained. – Workers will be made aware about the importance of wastewater management. – Good housekeeping. – Ensure prompt clean-up of spills.	– OHSE Audits and inspections. – Daily	– Site Manager – Exploration Manager – HSE appointed person /Environmental manager
Terrestrial environment and ecology	Loss of biodiversity and habitat.	– Use existing roads for access to avoid new tracks and create cut lines; with due regard for the existing ecosystem functions in the area. – Minimise clearance areas through proper planning of the exploration activities.	– OHSE Audits and inspections. – Daily	– Site Manager – Exploration Manager – HSE appointed person/Environmental Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– Route new tracks around established and protected trees, and clumps of vegetation. – Identify rare, endangered, threatened, and protected species. – During toolbox talks and induction, highlight to workers so that the removal of significant plants is avoided. – Where possible rescue and relocate plants of significance with the appropriate permits in place beforehand. – Promote revegetation of cleared areas upon completion of the exploration activities.		
	Increase in invasive species in cleared areas.	– All project equipment arriving on site from an area outside of the Project or coming from an area of known weed infestations (not present on the project site) should have an internal weed and seed inspection completed prior to equipment being used – Ensure the potential introduction and spread of alien plants is prevented, and – Ensure the correct removal of alien invasive vegetation and prevent the establishment and spread of alien invasive plants. – Eradicate weeds and alien species as soon as they appear. – Make workers aware about alien species and weeds.	– OHSE Audits and inspections. – Daily	– Site manager – HSE appointed person/Environmental Manager
	Residant, nesting and slow-moving organisms can be disturbed, injured, or killed by	– Restrict movements to areas of activities only – Use existing tracks and routes only. – Identify rare, endangered, threatened, and protected species in advance.	– OHSE Audits and inspections. – Daily	– HSE appointed person or Environmental Manager.

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	movement of vehicles and equipment.	– Route new tracks around protected species and sensitive areas. – Restrict movements to daytime hours. – Training and raise awareness to sensitize employees and notify them on avoiding some areas. – No driving off designated access routes (into the bush) / off-road driving. – No animals or birds may be collected, caught, consumed or removed from site.		
	Accidental and uncontrolled fire.	– Equipment to be well maintained and serviced regularly and documented proof kept. – Restrict movements of people to areas of activities only. – Train people and raise awareness about veld fires and firefighting and documented proof kept. – No open fire outside designated areas. – Ensure proper cooking facilities at temporary camps. – Special permission to set up a camp in the National Park will need to be sought. – No cigarette butts are discarded but contained and disposed of at an appropriate facility – Proper fire hazard identification signage to be placed in areas that store flammable material (i.e. hydrocarbons and gas bottles) – Control and reduce the potential risk of fire by segregating and safe storage of materials – Avoid potential sources of ignition by prohibiting smoking in and around facilities	– OHSE Audits and inspections. – Daily – Pre-start checklists on all machines. – Incident records management.	– Site Manager – HSE appointed person or Environmental Manager.

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– Firefighting equipment and fire breaks should always be at designated areas and should be maintained regularly		
	Risk of spillage of hydrocarbons, chemicals or other dangerous goods/material.	– Tailings, chemical and hydrocarbon spillages from trucks, conveyors and pipelines will be cleaned up timeously in order to prevent contamination. – Fuel and chemicals are handled with care. – Spill kits to be at designated areas across the site or available for use during refuelling, fuel/chemical delivery or use. Absorption material should be available and at hand. Where sawdust is used it should be cleaned up immediately and not left for long periods as this poses a fire hazard. – Equipment to be well maintained and serviced regularly and documented proof kept. – A funnel should always be available and used to avoid spillage.	– Daily visual inspections. – Pre-start checklists on all machines. – Incident records management.	– Exploration Manager – Site Manager
	Noise and vibration impact.	– Avoid noise generating activities at night, by ensuring noisy activities are avoided especially at night (e.g. a generator used at the temporary – Ensure appropriate measures are put in place to rectify noise and vibration complaints, should they occur. – Scheduling of works to avoid disturbance between the hours of 7 pm and 5 am. No exploration activities are to take place at night in the National Park.	– Noise and vibrational monitoring. – Pre-start checklists on all machines.	– Site Manager – Exploration Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– Procedures for receiving complaints from national park officials to be in place and mitigation measures to be implemented should construction and exploration generate excessive noise and vibration. – Drill equipment shall be suitably positioned to ensure that noisy equipment is away from receptors. – National park officials shall be provided at least two weeks' notice of drilling operations if within 1 km of their property. – All equipment to be shut down or throttled back between periods of use.		
	Waste generation and litter.	– Implement the waste management hierarchy across site: Avoid, reuse, recycle, then disposal at a registered landfill (i.e. Walvis Bay refuse dump)Waste shall be collected and shall be removed on a regular basis to avoid pests and bad odours – It is unlikely that hazardous material and wastes will be produced, however in the event that they do, they shall be managed in a safe and responsible manner so as to prevent contamination of soils, pollution of water and/or harm to people or animals as a result of the use of these materials. Proof of waste disposal certificates should be kept on file. – Hazardous and non-hazardous waste shall be always stored separately. – Hazardous waste must be discarded at the hazardous waste site in Walvis Bay.	– OHSE Audits and inspections; – Waste management inspections, – Safe disposal certificates	– HSE appointed person/Environmental Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Soil quality	Soil contamination due to mixing of earth matter, trampling, compaction, and pollution.	– Equipment must be in a good condition to ensure that accidental oil spills do not occur and contaminate soil. – During drilling oil absorbent matting should be placed under and around the rig. – Limit the possibility of compaction and creating of a hard subsurface. – Limit the possibility of trampling. – In the event of spills and leaks, polluted soils must be collected and disposed of at an approved site, - Lower the possibility of mixing mineral waste with topsoil.	– Pre-start checklists on all machines.	– Exploration Manager – Site Manager – Environmental Manager
	Soil erosion	– Where necessary, install diversions to curb possible erosion. – Restore drainage lines when disturbed. – Topsoil should be stockpiled separately, and re-spread during rehabilitation.	– OHSE Audits and inspections.	– Environmental Manager
Air quality	Increased dust levels	– All vehicles and machinery / equipment to be shut down or throttled back between periods of use. – Use existing access roads and tracks where possible. – Apply dust suppression where possible. – Restrict speed of vehicles (<30km/h). – Specific activities that may generate dust and impact on residents shall be avoided during high wind events.	– Dust fallout monitoring.	– Environmental Manager
Visual	Visual disturbances	– Position drill equipment in such a way that it is out of sight from human receptors (e.g. tourists visiting the National Park), – Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property.	– Daily observations	– Exploration Manager – Site Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– Maintain good housekeeping. – Apply dust suppression where possible. – Maintain continuous communication with I&APs to identify concerns and mitigation measures. – Restrict speed of vehicles (<30km/h). – Specific activities that may generate dust and impact on residents shall be avoided during high wind events. – All vehicles and machinery / equipment to be shut down or throttled back between periods of use. – Maintain good housekeeping. – Continuous engagement with the National Park management must be maintained to identify any concerns or issues, and appropriate mitigation and management measures agreed upon.		
Resource use	Inefficient use of water resources.	– Use water effectively and efficiently by following the reduce-recycle-reuse approach. – Record volumes of abstraction and supply.	– Daily observations. – Groundwater level monitoring.	– Environmental Manager – Employees

3 ENVIRONMENTAL MANAGEMENT PRINCIPLES

3.1 CONTINUAL IMPROVEMENT

The proponent's team is responsible for reviewing and updating this EMP, which will be supported by the monthly reports from the exploration team as part of this review process. The monthly reports will be reviewed, identifying any trends or significant areas of concern, as well as measures implemented to manage / resolve environmental or social issues. Compliance and legislative changes will be reviewed, and lessons learnt will be captured and incorporated into procedures where necessary. The EMP will be amended as required and follow up training on awareness and / or updates will be provided.

Ongoing hazard identification through the review of the EMP and supporting management plans and standard operating procedures (SOPs) will ensure environmental impacts are avoided or minimised to as low as reasonably practicable as part of the continuous improvement of the EMP.

3.2 BEST PRACTICE

The best practice management measures that will be complied with across site are listed in Table 3.

Table 3 – A list of environmental best practice measures to be implemented

ENVIRONMENTAL ASPECT	BEST PRACTICE REQUIREMENT
Pollution Prevention Control	– Equipment to be maintained and serviced regularly. – Refueling at designated locations. – Spill kits available where the risk of loss of containment is identified. – Bunds to be at least 110% of the volume of the container. – Good housekeeping.
Solid Waste Management	– Good housekeeping (no littering). – Designated waste collection areas around site and one central location. – Bins labelled. – Waste to be separated and kept clean and tidy. – Waste bins emptied on regular basis. – Solid waste to discarded at a registered landfill site
Ground Contamination	– Refueling will be undertaken in designated areas where spill kits must be available. – Chemical management must be enforced on site.

ENVIRONMENTAL ASPECT	BEST PRACTICE REQUIREMENT
	– Good housekeeping.
Storage of Fuels, Oils, Chemicals, and other hazardous liquids	– Storage tanks will be suitable and labelled for the liquid being stored. – Bunds to be at least 110% of the volume of the container. – Daily inspections of tanks.
Energy Efficiency	– Equipment to be maintained and serviced regularly. – Turn off equipment when not in use.
Air Quality	– Maintenance of roads. – Turn off equipment when not in use. – Equipment to be maintained and serviced regularly.

3.3 ENVIRONMENTAL MONITORING

A monitoring and evaluation program will be used in line with internal HSE standards to evaluate environmental performance and promote continual improvement. Monitoring also supports environmental management on site to evaluate how effective the environmental management has been, over an extended period.

An environmental monitoring schedule will be put in place for the operations domain.

The monitoring program comprises:

- Air quality monitoring (e. g. dust fallout).
- Water monitoring (e. g. groundwater).

The Environmental coordinator will be tasked with conducting the monitoring within this domain with the support of the exploration manager.

4 COMMUNICATION AND TRAINING

To ensure that potential risks and impacts are minimised it is vital that personnel are appropriately informed and trained on how to properly implement the EMP. It is also important that regular communications are maintained with stakeholders (if applicable) and made aware of potential impacts and how to minimise or avoid them. This section sets out the framework for communication and training in relation to the EMP.

4.1 COMMUNICATIONS

During construction and operations, the exploration manager and site manager shall communicate site-wide environmental issues to the project team through the following means (as and when required):

- Ensure all personal are afforded the opportunity to attend an environmental site induction that sets out their requirements in relation to this EMP
- Ensuring audits and inspections are undertaken regularly on a risk-based schedule
- Toolbox talks, including instruction on incident response procedures
- Deliver project-specific environmental briefings where required
- Ensure all personnel have access to the EMP
- Ensure operators of key activities and environmentally sensitive operations are briefed and understand their requirements.

This EMP shall be distributed to the exploration team including any contractors and personnel working on the exploration site to ensure that the environmental requirements are adequately communicated. Key activities and environmentally sensitive operations shall be briefed to workers and contractors.

During the exploration activities, communications between the management team shall include discussing any complaints received and actions to resolve them, - any inspections, audits, or non-conformance with this EMP, and any objectives or target achievements.

4.2 ENVIRONMENTAL EMERGENCY AND RESPONSE

An emergency is any abnormal event, which demands immediate attention. It is any unplanned event, which results in the temporary loss of management control at site, but where functional resources can manage the response. An Emergency Response plan document will be put in place that manages the response in relation to emergencies including environmental emergencies.

Table 4 – Emergency Contact details

TOWN	AMBULANCE	POLICE	FIRE BRIGADE
Henties Bay	+264 (0) 64 50020/ Toll Free 924	+264 (0) 64 500 201	+264 (0)81 241 1299

For large-scale spills and other significant environmental incidents, the fire services should be contacted as required and the office of the Ministry of Environment, Forestry and Tourism (MEFT) informed of the incident (telephone +264 61 284 2111). All correspondence with MEFT should be undertaken by the General Manager.

For the clean-up of smaller spills, the relevant Material Safety Data Sheet (MSDS) should be consulted to determine the appropriate clean-up procedure. Basic spill response training will be provided as part of the site environmental induction, spill response equipment, including relevant MSDS copies, will be provided in areas where potentially environmentally hazardous chemicals may be used.

4.3 COMPLAINTS HANDLING AND RECORDING

Any complaints received verbally by any personnel on the project site shall be recorded by the receiver including:

- The name of the complainant
- The contact details of the complainant
- Date and time of the complaint
- The nature of the complaint

The information shall be given to the exploration manager who is overall responsible for the management of complaints. The exploration manager shall do the following:

- Inform the project geologist of issues, concerns, or complaints.
- The exploration manager must maintain a complaint register that requires details of the complaint.
- The exploration manager will provide a written response to the complainant of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register.

The workforce shall be informed about the complaints register, its location and the person responsible, or the members of the public who wish to lodge a complaint. The complaints register shall be kept for the duration of the Project and will be available for government or public review upon request.

4.4 TRAINING AND AWARENESS

All personnel working on the Project shall be competent to perform tasks that have the potential to cause an environmental impact. Competence is defined in terms of appropriate education, training, and experience. Training and toolbox talks will be provided to all employees and contractors.

4.5 SITE INDUCTION

All personnel involved in the Project shall be inducted to the site with specific environmental awareness training, and health and safety issues. The environmental awareness training shall ensure that personnel are familiar with the principles of this EMP, the environmental impacts associated with their activities, the procedures that are in place to control these impacts and the consequences for departure from these procedures. The exploration manager shall ensure a register of completed training is maintained.

The site induction should include, but is not limited to the following:

A general site-specific induction that outlines:

- What is meant by “environment” and the EMP?
- Why the environment needs to be protected and conserved?
- How can exploration activities impact the environment?
- What can be done to mitigate against impacts?

The inductee's role and responsibilities concerning implementation of the EMP are:

- Know the site’s environmental rules
- Know the details of how to deal with, and who to contact should any environmental problems occur
- Know the basic vegetation clearing principles and how to use the species ID sheets
- Know the potential consequences of non-compliance with this EMP and relevant statutory requirements of the project, and
- Know the roles of responsible people working on the Project.

5 INCIDENT REPORTING

The Proponent must have an accident and incident reporting system that covers all applicable statutory requirements. This section sets out the minimum requirements for incident reporting and should be used as a basis for incident reporting if no incident reporting system exists.

5.1 MINOR INCIDENT OR "NEAR MISS"

Any incident or "near miss" involving the proponent, a nominated representative, any contractor, or its subcontractors or any third party's personnel, property or equipment, must be:

1) Orally reported to the manager or the manager's nominated representative:
   A. Immediately and without delay
   B. Regardless of whether injury to personnel has occurred
   C. Or property or equipment has been damaged.
2) Written up and handed to the manager or the manager's nominated representative by the end of the shift. The written report should:
   A. State all known facts and conditions at the time of the incident and
   B. Include a preliminary assessment of the most likely potential consequences of the incident under the current circumstances.

5.2 SERIOUS INCIDENT

For any serious incident involving a fatality, or permanent disability, the incident scene must be left untouched until witnessed by a representative of the police. This requirement does not preclude immediate first aid being administered and the location being made safe.

5.3 INCIDENT REPORT AND CLOSE OUT

The manager must investigate the cause of all work accidents and significant incidents and must provide the results of the investigation and recommendations on how to prevent a recurrence of such incidents. A formal root-cause investigation process should be followed.

6 COMPLIANCE AND ENFORCEMENT

6.1 ENVIRONMENTAL INSPECTIONS AND COMPLIANCE MONITORING

Inspections and audits of the site will be managed and undertaken by the exploration manager to check that the standards and procedures set out in this EMP are being complied with and pollution control measures are in place and working correctly. All equipment will be inspected to ensure they are operating as per specification, no damage has been caused, and no leaks or spills have occurred. Any non-conformance shall be recorded, including the following details: -

- a brief description of non-conformance,
- the reason for the non-conformance,
- the responsible party,
- the result (consequence), and
- the corrective action is taken and any necessary follow up measures required.

6.2 REPORTING

Reports shall be submitted to the Mining Commissioner in terms of the Minerals (Mining and Prospecting) Act, No. 33 of 1992. These reports include bi-annual environmental reports and audit reports.

Bi-annual environmental reports shall be submitted to the Environmental Commissioner every 6 months of every year. These reports should include records of the monitoring and other deliverables of every aspect or programme described in this EMP.

6.3 NON- COMPLIANCE

Where it has been identified that works are not compliant with this EMP, the exploration manager shall employ corrective actions to resolve the non-compliance as soon as it is possible to do so. In instances where the requirements of the EMP are not upheld, a non-conformance and corrective action notice should be drafted. This notice should be generated during the inspections and the exploration manager will be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcomings.

A non-compliance event/situation is considered if, for example:

- There is evidence of a contravention of this EMP and associated indicators or objectives.
- The site manager and or contractor have failed to comply with corrective or other instructions issued by the environmental manager or qualified authority.
- The site manager and or contractor fail to respond to complaints from the public.

Interventions for non-compliance must remain in place until corrective actions have been completed.

6.4 DISCIPLINARY ACTION

This EMP is a legally binding document and non-compliance with it will result in disciplinary action being taken against the perpetrator/s. Such action may take the form of (but is not limited to):

- Fines / penalties
- Legal action
- Monetary penalties imposed by the proponent on the contractor.
- Withdrawal of licence
- Suspension of work.

The disciplinary action must be determined in accordance with the nature and extent of the transgression or non-compliance. Penalties are to be weighed against the severity of the incident and the cost of restitution. The responsibility mainly lies with the Proponent to enforce compliance. However, the Environmental Commissioner may step into action any of these disciplinary actions.

6.5 CLEARANCE CERTIFICATE RENEWAL

The application documentation for renewal of the environmental clearance certificate must include an audit report and copies of the 6 bi-annual reports that were submitted every 6 months for the 3 years that the clearance certificate is valid for.

7 GROUNDWATER MANAGEMENT PLAN

7.1 INTRODUCTION

Chemical and waste spills must be contained, so as not to contaminate the soil or groundwater. Any contact with groundwater must be treated with exceptional care and reported immediately, to minimize the potential for contamination of an aquifer. It is of utmost important to limit the potential for wastewater seepage to groundwater.
This groundwater management plan outlines appropriate groundwater water management measures, monitoring programs and reporting procedures to be implemented.

7.2 OBJECTIVES

This groundwater management plan has been prepared to minimise potential impacts on groundwater resulting from the exploration activities. It is important to report any contact with or contamination of groundwater to the environmental coordinator or site manager immediately. Immediate response to the fault must be actioned.

7.3 RESPONSIBILITIES

WORKFORCE AND ALL CONTRACTORS
Required to take all reasonable measures to prevent the discharge of sediments and pollutants from the site into groundwater sources. Report any incidents that will result in potential contact with groundwater to the environmental coordinator or site manager.

ENVIRONMENTAL COORDINATOR
Will ensure that the objectives listed above are being met and provide performance feedback to the site manager.

7.4 GROUNDWATER MANAGEMENT MEASURES

The groundwater management plan measures are designed to minimise the run-off of sediment-laden or polluted water / effluent into the surrounding environment. Exploration activities that could potentially groundwater quality include:

- Chemical spills
- Refuelling
- Poor resource stewardship practices.

The following requirements are to be met to ensure that groundwater is not contaminated:

- Fuel/oil and chemicals must be safely stored and / or removed.
- Any potential contact groundwater must be treated with exceptional care and reported immediately, to minimize the potential for contamination of an aquifer.

Table 5 – Water Quality Mitigation Measures

Responsibility	– Exploration Manager – Site Manager – Environmental Coordinator – Employees
Potential issues or impacts	– Groundwater contamination due to incidental hydrocarbon spills – Change in the water table
Protection of Groundwater	– Where the water table is penetrated by drilling and the water flows out onto the surface, a furrow needs to be dug that diverts the water to vegetation
	– All boreholes should be capped and labelled – In the instances where water is encountered the water should be sampled and tested and the authorities informed through the regular reporting that is required.
	– Water saving measures are to be employed. – No taps or pipes are left to run or leak. – Leaks are to be stopped immediately.
Sewage and grey water from temporary portable toilets on site	– Use of the portable toilets instead of the veld must be strictly adhered to
	– Grey water collected from ablution facilities at the campsite must be discharged appropriately.
Lowering of the	– Maximise the reuse of water to minimise the use of clean water no matter the source.

groundwater levels	– Water from existing water sources should be used. – Use water effectively and efficiently by following the reduce-recycle-reuse approach.
Inefficient use of water resources	– Ensure compliance with all legal obligations. – Re-fueling must be undertaken in a designated area. – All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil during any field repairs or emergency maintenance. – In the event of a spill, polluted soils must be collected and disposed of at an approved site or remediated on a sealed surface. – A 'good housekeeping' policy shall be adopted across the exploration area.
Any hazardous fluid or lubricating chemicals used could enter the aquifer environment causing pollution	– The contractors' equipment maintenance areas must be surfaced and will drain to a sump with silt traps and hydrocarbon collectors. – All chemicals, bulk fuels, oils and grease and any other hazardous substance, will be stored and handled as per all applicable legislation and national standards as well as the specific MSDS. – Portable chemical toilets must be used at each drill site. They will be routinely cleaned, and sewage disposed of at a licensed sewage treatment plant. – Safe disposal certificates for sewage disposal must be kept on file.
Monitoring requirements	– Record borehole water levels at regular intervals during the exploration activities. – Keep these records on file.

7.5 GROUNDWATER QUALITY MONITORING

Every effort must be made to preserve the quality of groundwater sources that the Proponent may potentially impact. Containment of waste and chemicals and the correct disposal thereof must meet the required standards. Personnel must report any unusual conditions and intersection with groundwater immediately to the environmental coordinator or site manager.

The Department of Water Affairs require quarterly reporting for water levels and quality of water from the sources for which a permit was required. The following list outlines the requirements for abstraction and discharge permits: -

1. Maintain a record of all abstracted volumes and report to DWA / MAWLR as per permit conditions
2. Maintain a monthly water balance
3. Submit quarterly water quality tests for sewage water and water abstraction and monitoring boreholes.

8 WASTE MANAGEMENT PROGRAMME

8.1 INTRODUCTION

The exploration activities will generate both solid and liquid waste. The types of waste generated at the camp or drill sites are classified as mineral and non-mineral waste. All non-mineral waste will eventually be removed from the Project site and will either be disposed of at the Walvis Bay waste disposal site (household or garden waste). Mineral waste (diamond core or percussion drilling (i.e. reverse circulation) samples) will be stored and used for sampling for analysis purposes. At the end of the project some samples may be kept for archiving purposes while other samples will be discarded at a hazardous waste site.

8.2 OBJECTIVES

This waste management programme has been prepared to ensure the proper storage, transport, treatment, and disposal of waste and where possible will follow the waste hierarchy, which encourages waste avoidance and waste reduction followed by reuse, recycling, and reclamation, before waste treatment and waste disposal.

8.3 ROLES AND RESPONSIBILITIES

WORKFORCE AND ALL CONTRACTORS

- Required to ensure that all waste generated during exploration activities is removed and disposed of accordingly including providing evidence in the form of waste transfer receipts for the waste moved off site.
- Ensure no windblown rubbish pollutes the environment, and
- Remove waste on a regular basis to prevent vermin attraction.

SITE MANAGER AND ENVIRONMENTAL COORDINATOR

- Required to inspect receipts and evidence of correct waste handling.
- Review waste management practices regularly during the exploration activities.

8.4 SOLID AND LIQUID NON-MINERAL WASTE

The camp site and drill sites will set up a form of recycling system thus reducing its impacts associated with solid waste generation. Where possible the Proponent will implement measures to reduce, reuse and recycle waste generated as part of the operations. To achieve this a temporary waste storage facility will be required.

Waste will be controlled through prevention and mitigation measures as follows: -

- Reduce, reuse, and recycle where possible.
- Storage of domestic waste on site may result in the attraction of unwanted scavengers and should be disposed of at the accredited site as soon as is feasible, and
- Hydrocarbon and chemical contaminated solids have the potential to cause contamination to the soil or groundwater. Thus, correct storage and disposal methods

are required. Some of these materials can be recycled or used by other facilities. Contaminated soil can be remediated.

Table 6 – Waste Mitigation Measures

Responsibility	Exploration Manager Environmental Coordinator All employees
Potential issues or impacts	– Soil and groundwater contamination due to spillage – Land and water pollution – Loss of biodiversity – Infectious diseases (e.g., from unsafe partially treated sewage)
Waste Management Plan	The Proponent should compile a waste management plan that should address as a minimum the mitigation measures included below
Hazardous waste	All exploration vehicles (4x4 vehicles and trucks) and equipment on site should be provided with a drip tray/oil spill kit: - Drip trays and sealable containers are to be transported with vehicles wherever they go. - Drip trays should be cleaned daily, and the spilled hazardous substances handled, stored, and disposed responsibly
	All exploration vehicles should be maintained regularly to prevent oil leakages. Maintenance of vehicles is not permitted at drill sites as far as reasonably possible, but if maintenance is to be undertaken at drill sites, then measures need to be put in place to avoid hydrocarbon spillages.
	Maintenance and washing of exploration vehicles should be conducted at a suitable site/facility which adhere to the following: – The work area/facility should be lined so that it is impermeable. – The work area/facility should have an oil-water separator (oil trap) to collect any run-off from the washing and or maintenance activities or be equipped with an oil and water separation system.
	Spilled oil or fuel should be treated as hazardous waste, collected in the appropriate hazardous waste containers (e.g., sealable drums) on site. The hazardous waste should be removed off-site at the end of each day and transported to the closest Walvis Bay hazardous waste disposal site.
	All hazardous substances (e. g. fuel, grease, oil, drilling fluids etc.) or chemicals should be stored in a specific location at the exploration campsite on an impermeable surface which is bunded before it is taken to the hazardous waste site in Walvis Bay.

General waste	The exploration site should be always kept tidy. All domestic and general waste produced daily should be contained: – No waste may be buried or burned within national parks. – No waste is not to be left uncontained but stored in suitable containers, over night – Waste containers (bins) should be emptied regularly and removed from site to the nearest official waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot if available. – Enough separate waste containers (bins) for hazardous and domestic/general waste must be provided for at the camp and each drill pad site. These bins should be clearly marked. – Exploration personnel should be sensitised to dispose of waste in a responsible manner and not to litter. – No waste may remain at any site after the completion of the project
Residual mineral samples	Samples that will not be used for further analysis or submitted to MME should be taken off site or used (with the required permission from the affected landowner and / or tenant) to repair any possible damaged roads. No mineral waste samples may be dumped at the camp or drill site or in the vicinity of these sites as they may physically and / or chemically pollute when weathering occurs.
Littering and environmental contamination from waste	No littering by anybody is allowed in national parks.
	All litter on and around the sites must be picked up and placed in the bins provided.
	The site should always be kept tidy and free of litter. All domestic and general waste should be collected and stored daily.
	No solid waste landfill will be established at any of the sites
	Waste shall be collected and removed regularly to avoid bad odours
	Hazardous and non-hazardous waste shall be always stored separately
Environmental contamination from liquid waste	Hydrocarbon and chemically contaminated solids must be stored correctly and disposed of by registered companies
	Safe disposal certificates must be kept on record by the by the environmental coordinator or site manager.
Sewage and grey water from temporary portable toilets on site	Portable toilets such as portable camping units, must be provided during exploration activities in the field.
	Portable ablution units should be serviced regularly, and the liquid waste disposed of at Walvis Bay's sewerage works.
Monitoring Requirements	Monitor whether the provisions set out in this EMP concerning waste management are applied as per the instructions above.

	All non-compliances should be recorded and discussed at weekly site meetings and timeous remedial actions must be taken. All guilty parties that are in contravention of the provisions set out for managing waste will be penalised in accordance with the severity of the impact. Appropriate remedial steps should be taken when non-compliances.

8.5 WASTE DISPOSAL MONITORING

Certificates to prove the safe disposal of waste from a permitted hazardous waste disposal site must be provided to the manager upon request.

9 SPILL MANAGEMENT PROGRAMME

9.1 INTRODUCTION

The uncontrolled release of fuels and other chemicals has the potential to result in the contamination of soil and groundwater, which may lead to serious environmental harm. On this basis, the storage and use of fuels or other chemicals must be managed to minimise the risk of a spill. Measures must be in place to promptly address impacts should a spill occur.

9.2 OBJECTIVES

This spill management plan has been prepared to minimise the potential for the uncontrolled release of fuels, oils, and other chemicals. Preventative measures to minimise the potential for a spill are listed. Should a spill occur, this plan provides guidance for the proponent on the appropriate spill response measures.

9.3 ROLES AND RESPONSIBILITIES

WORKFORCE AND ALL CONTRACTORS
Required to implement the spill prevention and response measures listed below.

SITE MANAGER/ ENVIRONMENTAL COORDINATOR
Required to ensure that appropriate spill prevention measures (listed below) are implemented and that any spills have been appropriately managed and reported.

9.4 SPILL PREVENTION MEASURES

The following management measures are to be implemented by the Proponent: -

- Spill kits must always be available at the camp and drill sites. The kits must include, as a minimum, the following items:
    - Absorbent materials
    - Drip-trays
    - Shovels
    - Heavy-duty plastic bags
    - Protective clothing (e.g., gloves and overalls), and
- Major servicing of equipment must be undertaken off-site in appropriately equipped workshops.
- All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil
- Consider alternative camp and drill sites when the water table is near the surface as this increases the risk of polluting the aquifer.
- Accidental spills and leaks (including absorption material) must be cleaned as soon as possible.

- Store bulk fuel in adequate containment areas (on non-porous surface and bunded)
- No damaged containers may be used.
- Provision of adequate and frequent training on spill management, spill response and refuelling must be provided to all onsite staff and contractors.
- Fuels, lubricants, and chemicals must be stored within appropriately sized, impermeable bunds or trays with a capacity not less than 110% of the total volume of products stored.
- All fuel and chemical storage and handling equipment (including transfer hoses, etc.) must be well maintained.
- Storage and handling of fuels and chemicals must follow relevant legislation and regulations.
- No refuelling shall take place within 50 metres of groundwater boreholes or riverbeds and
- MSDS must be kept for each chemical used on site. These must be easily accessible to all personnel.

9.5 SPILL RESPONSE MEASURES

The primary concern, in the event of any spill, is the health and safety of any members of the public / employees and contractors in the vicinity. Of secondary, but highly significant, importance, in order of priority, is the protection of water sources and then soil and then vegetation.

The following points therefore apply to all areas on the site:

- Assess the situation for potential hazards.
- Do not make contact with the spilled substance until it has been characterised and the necessary personal protective equipment (PPE) is provided.
- Isolate the area as required.
- Notify the site manager or safety, health, and environmental coordinator.

The following measures are to be implemented in response to a spill:

- Spills must be stopped at source as soon as possible (e.g., close valve or right the overturned drum).
- Spilt substances must be contained within the smallest area possible using a combination of absorbent material, earthen bunds, or other containment methods.
- Spilt substances must be recovered as soon as possible using appropriate equipment. In most cases, it will be necessary to excavate the underlying soils until clean soils are encountered.
- All contaminated materials recovered after a spill, including soils, absorbent pads, and sawdust, must be disposed of the hazardous waste site in Walvis Bay.

- The manager or safety, health and environmental coordinator must be informed as soon as possible in the event of a spill, and
- A written Incident Report must be submitted to the exploration manager.

The table below summarises the environmental risks and issues, mitigations, and monitoring measures for spills of hazardous substances.

Table 7 – Mitigations & Monitoring of Spills of Hazardous Substances

Responsibility	- Exploration Manager - Site Manager - Environmental Manager	
Potential issues or impacts	Hydrocarbon and chemical handling and storage can cause spillages that lead to groundwater contamination and soil contamination.	
Management/ Mitigation measures	Safe delivery and handling	– Training employees and toolbox talks – Good housekeeping across the site – Fuel and chemicals are handled with care – Spills of hazardous chemicals must be contained and cleaned-up to ensure protection of the environment – Spill kits must be at a designated place on site or available for use during refuelling, the delivery of fuel or chemical or its use. Absorption material must be available on site. Where sawdust is used, it should be cleaned up immediately and not left for long periods as this poses a fire hazard – Any major spill must be reported once it has been contained – Equipment must be well maintained and serviced regularly – In the field, the use of hydrocarbons under 200 litres can be used for mobile refuelling or servicing – All the necessary PPE required for the safe handling and use of petrochemicals and oils must be provided for and used or worn by the staff on site.
	Machinery and Equipment Maintenance	– Major servicing of equipment shall be undertaken off-site or in appropriately equipped workshops. – For small repairs and required maintenance activities all reasonable precautions to avoid oil and fuel spills must be undertaken (e. g. drip or spill trays, impervious sheets) – Vehicles and machinery must be regularly serviced to minimise oil and fuel leaks

		– All the necessary PPE required for maintenance activities must be issued to staff whose duty it is to manage and maintain the machinery and equipment
	Storage	– All tanks must be stored on a non-porous floor and within a bunded area – Bunding must be capable of storing at least 110% of the volume of the largest tank – All containers must be suitable for use and not damaged – Tanks are locked at all time – Spill kits available at storage locations and around the site at suitable locations
	Refuelling	– Drip trays must be used during refuelling of vehicles and on an impermeable flat surface, where possible – A funnel should be available and used to avoid spillage during decanting
	Rehabilitation	Contaminated soils should be removed and deposited on lined storage areas for rehabilitation purposes. Rehabilitation can take place naturally by adding water, air, and fertiliser. The process can be accelerated by using special additives that will breakdown the hydrocarbons.
Monitoring requirements	– Daily observations when fuels/chemicals are delivered and handled – Supervision during refueling – Weekly observations monitor containment and storage – Establish an internal land clearing permit system that restricts advance clearing – Monitor the level of hydrocarbons in contaminated soils after a year of rehabilitation – Monitor each year until the soils are ready for re-use in revegetation projects.	

For large-scale spills and other significant environmental incidents, the fire services should be contacted as required and the office of the Ministry of Environment, Forestry and Tourism (MEFT) informed of the incident (telephone +264 61 284 2111). All correspondence with MEFT should be undertaken by the manager.

For the clean-up of smaller spills, the relevant material safety data sheet (MSDS) should be consulted to determine the appropriate clean-up procedure. Basic spill response training will

be provided as part of the site environmental induction. Spill response equipment, including relevant MSDS copies, must be provided in areas where potentially environmentally hazardous chemicals are used.

9.6 REPORTING OF SPILLS

All major petroleum product spills should be reported to the Ministry of Mines and Energy (MME) on Form PP/11 titled “Reporting of major petroleum product spill”, issued by the ministry.

9.7 REHABILITATION (REMEDIATION) OF CONTAMINATED SOILS

A procedure manual for rehabilitating or remediating contaminated soils at camp sites or at the Proponent's fixed property in Namibia should be developed. All soils that are contaminated with chemicals and or hydrocarbons should be taken to the rehabilitation area.

10 AIR QUALITY MANAGEMENT PROGRAMME

10.1 INTRODUCTION

This air quality management plan describes the strategies and procedures that will be implemented to ensure that the health and wellbeing of construction workers and nearby sensitive receptors are protected from elevated concentrations of airborne dust and other gaseous emissions (e.g., oxides of nitrogen; nitrogen dioxide, sulphur dioxide and carbon monoxide). Typically, the gases present in an exploration environment include carbon monoxide, hydrogen sulphide, sulphur dioxide and nitrogen dioxide. In cases where generators and other machinery are used, there will be some release of exhaust fumes that will impact the immediate vicinity but will be of short duration.

10.2 OBJECTIVES

This air quality management plan has been prepared to prevent deterioration of air quality and to minimise the potential for emitted dust and airborne pollutants. Preventative measures are listed below.

10.3 RESPONSIBILITIES

WORKFORCE AND ALL CONTRACTORS
To implement the necessary management practices to meet the objectives listed above.

SITE MANAGER/ ENVIRONMENTAL COORDINATOR
To ensure that the objectives listed above are being met and to provide performance feedback for the exploration manager.

10.4 AIR QUALITY MANAGEMENT PROCEDURES

Activities that may potentially emit dust and airborne pollutants during the operations include the following:

- Vehicle movements
- Machinery operations

The Proponent will minimise the potential for dust generation and the emission of airborne pollutants by undertaking the following management measures, as required:

- Vehicle movements will be restricted to sealed roads if possible
- Appropriate speed limits will be set and enforced if not already in place
- Ground disturbance will be minimised as far as practical
- Vehicles and machinery will be maintained to limit exhaust fume emissions.

Table 8 – Air Quality Mitigation Measures

Responsibility	– Environmental Manager – Site Manager
Potential issues or impacts	– Impaired visibility for drivers and employees – Respiratory related health issues
Dust and fumes	Appropriately rated and fitted dust masks should be given to personnel working in areas of dust exposure
	Grey water should be used for dust suppression on a constant basis if available and as required
	Maintain speed limits

10.5 AIR QUALITY MONITORING

Visual monitoring of exploration activities can ensure the minimum discharge of airborne dust and other emissions according to the air quality management programme.

1. Daily observations

10.6 ODOURS, NOISE AND VIBRATION IMPACTS

The sensitive receptors within proximity to the camp site and drilling sites will be the s national park. Activities related to the exploration activities have the potential to generate nuisance odours, noise and vibration that can impact the quality of life for neighbouring residents and tourism activities if located in close range. However, this potential impact is minimal due to the nature of the exploration methods employed.

Notwithstanding the above point, the proponent should continue to ensure potential odours, noise and vibration sources are mitigated through measures such as:

- Avoid noise generating activities at night
- Ensure appropriate measures are put in place to rectify odours, noise, and vibration complaints, should they occur
- Scheduling of works to avoid disturbance between the hours of 7:00PM and 5:00AM, and
- Procedures for receiving complaints from the national park authorities and landowners should be in place and mitigation measures to be implemented should exploration activities generate excessive odours, noise, and vibration, which is unexpected.

Occupational noise and vibration are managed through the health and safety management plan and therefore not fully described in this EMP.

Table 9 below shows the environmental risks and issues, and mitigation and monitoring measures for noise aspects.

Table 9 – Noise Aspects

Responsibility	- Exploration Manager - Site Manager
Potential issues or impacts	Excessive noise due to proposed Project operations.
Management/ Mitigation measures	Work hours should be restricted to between dawn and dusk where exploration involving the use of heavy equipment, power tools, and the movement of heavy vehicles is within 500 m from sensitive receptors. If this is not possible, the affected community need to be consulted well in advance to agree on a mutually acceptable solution
Monitoring requirements	Sources of excessive noise will be investigated, and recommendations made for mitigation.

11 ARCHAEOLOGICAL AND HERITAGE PROGRAMME

Areas within the proposed project area has not been subjected to a heritage survey and assessment during this phase. Inspections of the areas will be carried out prior to exploration activities. The following procedure set out here covers the reporting and management of any finds.

Scope: The "chance finds" procedure covers the actions to be taken from the discovery of a heritage site or item to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

Compliance: The "chance find" procedure is intended to ensure compliance with relevant provisions of the National Heritage Act, No. 27 of 2004, especially Section 55 (4): "a person who discovers any archaeological object must as soon as practicable report the discovery to the Council". The procedure of reporting set out below must be observed so that heritage remains reported to the National Heritage Council (NHC) are correctly identified in the field.

Table 10 below shows the environmental risks and issues, and mitigation and monitoring measures for archaeological and heritage aspects.

Table 10 – Archaeological and Heritage Aspects

Responsibility	- Exploration Manager - Site Manager
Potential issues or impacts	Impact on heritage features
Management/ Mitigation measures	Should a heritage site or archaeological site be uncovered or discovered during exploration, a "chance find" procedure should be applied in the order as it appears below: - – If operating machinery or equipment, stop the machines – Demarcate the site with barrier tape – Determine GPS position if possible – Report findings to foreman – Report findings, site location and actions taken to site manager – Cease any other works in immediate vicinity – Visit the site and consult with any potentially affected party to determine whether work can proceed without damage to the findings – Determine and demarcate an exclusion boundary – Site location and details to be added to the project's Geographic Information System (GIS) for field confirmation by an archaeologist – Inspect site and confirm the addition to the project's GIS – Advise the National Heritage Council (NHC) and request written permission to remove findings from work area

	– Recover, package and label findings for transfer to the National Museum
	Should human remains be found, the following actions will be required: – Apply the chance find procedure as described above – Schedule a field inspection with an archaeologist to confirm that remains are human – Advise and liaise with the NHC and Police – Remains will be recovered and removed to either the National Museum or the National Forensic Laboratory.
SPECIFIC MITIGATION DETAILS	
Archaeology	Obtain inputs from an archaeologist to identify potential archaeological sites in the area and to determine further mitigation measures where necessary
Monitoring requirements	– Check that the archaeologist has given a written statement about the location of the known archaeological sites in the area relative to the location of the area of exploration activities – Make sure no archaeological site is disturbed whilst excavation and recovery are taking place – 3. Make sure everything of importance, as identified by an appropriate specialist, is removed from site, and declared safe by an archaeologist before exploration can continue at the site

11.1 RESPONSIBILITIES

The following personnel are listed with their designated responsibilities
Operator - must exercise due caution if archaeological remains are found
Foreman - must secure site and advise management timeously
Site manager - must determine safe working boundary and request inspection
Archaeologist - must inspect, identify, advise management, and recover remains

11.2 PROCEDURE

The chance find procedure described above is delegated to the various responsible personnel in the correct order as follows: -

Actions to be taken by the person (e.g., operator, foreman, environmental coordinator) who identifies the potentially important archaeological or heritage material is responsible to action the following: -

- Switch off the machinery or equipment and stop work at that site.
- Demarcate the site with barrier tape.
- Determine GPS position if possible.
- Report findings to foreman

Actions to be undertaken by the by foreman are as follows: -

- Report findings, site location and actions taken to the site manager

- Cease any works in the immediate vicinity.

Actions to be undertaken by the site manager are as follows: -

- Visit site and determine whether work can proceed without damage to findings.
- Determine and delineate an exclusion boundary.
- Site location and details are to be added to project's GIS for field confirmation by archaeologist.

Actions to be undertaken by an archaeologist are as follows: -

- Inspect site and confirm addition to project GIS.
- Advise NHC and request written permission to remove findings from work area.
- Recovery, packaging and labelling of findings for transfer to the National Museum.

In the event of discovering human remains the site manager should have the following undertaken: -

- Complete actions as above for chance finds
- Field inspection by archaeologist to confirm that remains are human.
- Advise and liaise with NHC and Police
- Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.

12 IMPLEMENTATION OF THE EMP

This environmental management plan:

A. Has been prepared according to a contract with the proponent.

B. Has been prepared based on information provided to ECC up to June 2023

C. Is for the sole use of the proponent, for the sole purpose of an EMP.

D. Must not be used (1) by any person other than the proponent or (2) for any purpose other than an EMP.

E. Must not be copied without the prior written permission of ECC.