

Environmental Management Plan (EMP)

**ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR DIMENSION
STONE ON EXCLUSIVE PROSPECTING LICENCE (EPL) NO. EPL 7950
LOCATED NORTH-EAST OF KARIBIB IN THE ERONGO REGION,
NAMIBIA**

DRAFT

Reference Number: APP- 003462

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1 INTRODUCTION

1.1 Project Background

Suh Casa Investment CC (Pty) Ltd (hereinafter referred to as The Proponent) proposed to carry out prospecting and exploration activities on Exclusive Prospecting Licence (EPL) No. 7950. The proponent applied for an Environmental Clearance Certificate (ECC) for exploration and prospecting activity with the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs and Forestry (MEFT: DEAF) on the 08 November 2019. The target commodity to be explored in the EPL is Dimension Stones upon approval. The locality map of the EPL site is shown in **Figure 1**.

In terms of section 27 (1) of the Environmental Management Act (EMA), no. 7 of 2007 and in line with Sections 32-37 of the EMA regulation as gazetted in 2012, the proposed prospecting and exploration activities on the EPL form part of the listed activities that may not be conducted without an EIA being undertaken and before an ECC is obtained. The relevant listed activities as per EIA regulations are:

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

This document has been prepared as per requirement following Section 8 of the EMA (No. 7 of 2007). The compilation of this EMP is one of the requirements (scope of work) presented to Excel Dynamic Solutions (Pty) Ltd (Environmental consultant) by the Proponent. It is required of the Environmental Consultant to comply with the EMA and provide for the following:

- Prepare a complete Environmental Management Plan to be used as a guideline to monitor compliance to the recommendations as stipulated in the EIA and to assist in managing and monitoring activities throughout the operation and maintenance of the proposed exploration and prospecting activities on the EPL.
- The Environmental Consultant must elucidate in the EMP the roles and responsibilities of the Proponent, the contractors, and any other identified stakeholders.

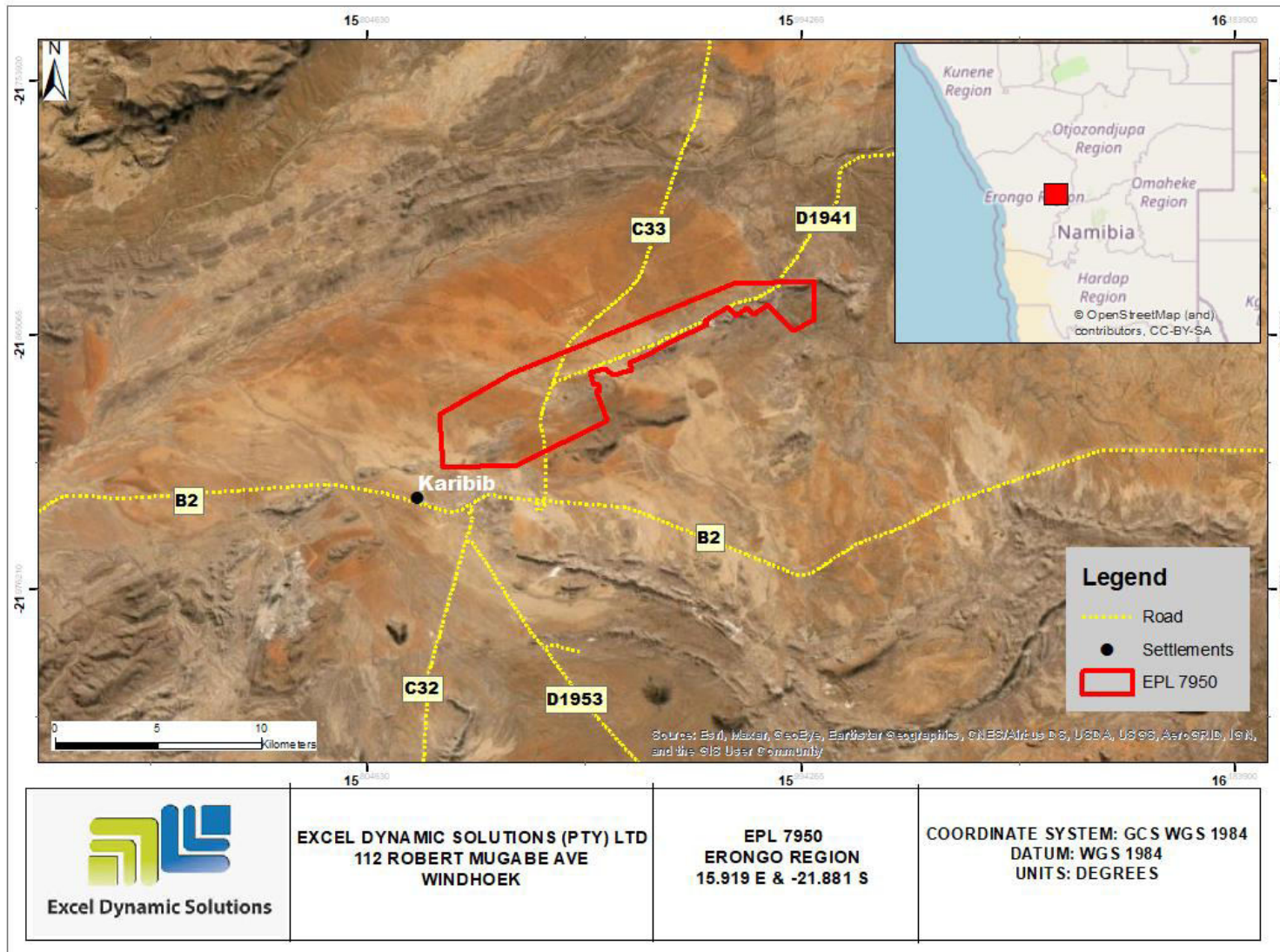


Figure 1: Locality map of the EPL No. 7950 located within the Karibib constituency in Erongo region

1.2 Aim of the Draft Environmental Management (EMP)

Regulation 8(j) of the EIA Regulations (2012) requires that a draft Environmental Management Plan (EMP) shall be included as part of the Environmental Scoping Assessment (ESA) report. A 'Management Plan' is defined as:

"...a plan that describes how activities that may have significant environments effects on the environment are to be mitigated, controlled and monitored."

An EMP is one of the most important outputs of the EA process as it synthesizes all of the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. It provides a link between the impacts identified in the EA process and the required mitigation measures to be implemented during operation. It is important to note that an EMP is a statutory document and a person who contravenes the provisions of this EMP may face imprisonment and/or a fine. This EMP is a living document and can be amended to adapt to and address project changes and/or environmental conditions and feedback from compliance monitoring.

The purpose of this document is, therefore, to guide environmental management throughout the different phases of the proposed exploration activities, namely: operation and maintenance phase, and decommissioning phase:

- **Operation and Maintenance** - This is the phase where The Proponent will do exploration and prospecting for the targeted commodity groups and undertake related activities on site. It is also the phase during which maintenance of the area, equipment, and machinery is done by The Proponent.
- **Decommissioning and Rehabilitation** – This is the phase during which the exploration activities on the EPL end. The decommissioning of the exploration operations may be considered as a result of poor exploration results or declining in the focus commodities' market price. Before the decommissioning phase, The Proponent will need to put site rehabilitation measures in place.

Environmental Monitoring Requirements: To support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented alongside the mitigation plan.

This draft EMP will be used by The Proponent, employees, and/or contractors to provide management measures to be undertaken during the exploration and prospecting activities, to address the environmental impacts identified in the scoping report and ensure that the impacts on the environment are avoided, or limited if they cannot be avoided completely.

1.3 Appointed Environmental Assessment Practitioner

To fulfill the requirements of the EMA and its 2012 EIA Regulations, The Proponent appointed Excel Dynamic Solutions (Pty) Ltd (EDS), an independent consulting company to conduct the required EA process on their (Proponent's) behalf. This draft EMP will be submitted as part of an application for an ECC to the Environmental Commissioner at the Department of Environmental Affairs (DEA), at the Ministry of Environment, Forestry, and Tourism (MEFT).

The EA project is headed by Mr. Nerson Tjelos, a qualified geoscientist and experienced Environmental Assessment Practitioner (EAP). The report was compiled by Ms. Althea Brandt with the assistance from Ms. Aili lipinge and reviewed by and Ms. Rose Mtuleni.

1.4 Details of the Project Proponent

The details of the client are presented in **Table 1** below.

Table 1: Contact details of the Proponent

Full name of Proponent	Contact Details	Postal Address	ECC Application for:
Suh Casa Investment CC	Contact Person: L. Campher Cellphone: +264 81 1623997 Email: marievdw31@gmail.com	P. O Box 1162, Swakopmud, Namibia	Environmental Scoping Assessment (ESA) for Dimension Stone on Exclusive Prospecting License (EPL) No. 7950 located North-east of Karibib in the Erongo Region, Namibia

1.5 Environmental Scoping Assessment Legal Requirements

The content of the EMP must meet the requirements of Section 8 (j) of the EIA Regulations. The EMP must address the potential environmental impacts of the exploration and prospecting activities on the environment throughout the project life-cycle. It must also include a system for assessment of the effectiveness of monitoring and management arrangements after project implementation.

The Proponent, therefore, has the responsibility to ensure that the exploration activities as well as the ESA process conform to the principles of the EMA and must ensure that employees act under such principles. **Table 2** below lists the requirements of an EMP as stipulated by Section 8 (e) of the EIA Regulations, primarily on specific approvals and permits that may be required for the activities required of the EPL.

Table 2: Applicable legal requirements and permits to the activities of the EPL

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Environmental Management Act EMA (No 7 of 2007)	Requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27). Details principles which are to guide all EAs.	The EMA and its regulations should inform and guide this EA process. Should the ECC be issued to the Proponent, it should be renewed every 3 years, counting from the date of issue.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	Details requirements for public consultation within a given environmental assessment process (GN 30 S21). Details the requirements for what should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).	Contact details at the Department of Environmental Affairs (DEA), Ministry of Environment, Forestry and Tourism (MEFT) Contact person(s) at MEFT and their details: Mr. Damian Nchindo or Mr. Josafat Hiwana (Chief and Senior Conservation Scientists and EIA Report Reviewers/evaluators) Tel: +264 61 284 2717 / +264 61 284 2962 Email: damian.nchindo@met.gov.na and josafat.hiwana@met.gov.na, respectively.
Forestry Act 12 of 2001, Amended Act 13 of 2005	Prohibits the removal of any vegetation within 100 m from a watercourse (Forestry Act S22 (1)). The Act prohibits the removal of and transport of various protected plant species.	Should there be protected plant species, which are known to occur within the project site, these are required to be removed and a permit should be obtained from the nearest Forestry office (Ministry of Agriculture, Water & Forestry (MEFT)) before removing them. Contact Details at MEFT (Acting Director of Forestry) Mr. Fillemon Kayofa

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
		<p>Tel: +264 61 208 7663</p> <p>Email: Fillemon.Kayofa@mawf.gov.na</p>
<p>Minerals (Prospecting and Mining) Act (No. 33 of 1992)</p>	<p>Section 48 (3): To enable the Minister to consider any application referred to in section 47 the Minister may (b) require the person concerned by notice in writing to (i) carry out or cause to be carried out such environmental impact studies as may be specified in the notice.</p> <p>Section 54(2): details provisions about the decommissioning or abandonment of a mine</p>	<p>The Proponent should ensure that all necessary permits/authorization for these exploration activities (if any) are obtained from the Ministry of Mines and Energy (MME).</p> <p>Contact person and details at the MME (Mining Commissioner)</p> <p>Mr. Erasmus Shivolo</p> <p>Tel: +264 61 284 8167</p> <p>Email: Erasmus.Shivolo@mme.gov.na</p>
<p>Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)</p>	<p>Regulation 3(2)(b) states that “No person shall possess [sic] or store any fuel except under the authority of a license or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 liters or less in any container kept at a place outside a local authority area”</p>	<p>The Proponent should obtain the necessary authorization from the MME for the storage of fuel on-site.</p> <p>Carlo Mcleod (Ministry of Mines and Energy: Acting Director – Petroleum Affairs)</p> <p>Tel: +264 61 284 8291</p>
<p>Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).</p>	<p>Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.</p>	<p>Division of Labour Services at the Ministry of Labour, Industrial Relations and Employment Creation.</p> <p>Tel: +264 61 206 6111</p>

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
National Heritage Act No. 76 of 1969	Call for the protection and conservation of heritage resources and artefacts.	<p>Should any archaeological material, e.g. bones, old weapons/equipment, etc be found on the exploration site, work should stop immediately and the National Heritage Council of Namibia must be informed as soon as possible. The Heritage Council will then decide to clear the area or decide to conserve the site or material.</p> <p>Contact Details at National Heritage Council of Namibia</p> <p>Dr. Alma Nankela</p> <p>Tel: +264 81 244 375</p>
Road traffic and transport Act 52 of 1999 and its 2001 Regulations	Provides for the control of traffic on the public road and the regulations about road transport, including the licensing of vehicles and drivers.	<p>Eugene de Paauw (Roads Authority-specialist Road legislation)</p> <p>Tel: +264 61 284 7072</p>

1.6 Draft EMP Limitations

This EMP has been drafted with the acknowledgment of the following limitations:

- This EMP has been drafted based on the Environmental Assessment (EA) conducted for targeted prospecting and exploration of **Dimension Stone** on the EPL located north of Karibib in Erongo region.
- The mitigation measures recommended in this EMP document are based on the risks/impacts in the EA Report which were identified based on the project description as provided by the Proponent, site investigation, and public input. Should the scope of the proposed project change, the risks/impacts will have to be reassessed and mitigation measures provided accordingly.

2 EMP ROLES AND RESPONSIBILITIES

The Proponent is ultimately responsible for the implementation of the EMP. The Proponent may, alternatively, delegate this responsibility at any time, as they deem necessary during the project phases. The roles and responsibilities of all delegates/parties involved in the effective implementation of this EMP are set out below:

Competent Monitoring Authority (Ministry of Environment, Forestry, and Tourism: Department of Environmental Affairs (DEA)): Responsible for enforcing compliance with the EMA, its regulations, and full implementation of this EMP. The competent authority also reviews biannual reports and grant ECC renewal after 3 years following an environmental Audit.

Proponent's Representative (PR): If the Proponent does not personally manage all aspects of operation and maintenance, and decommissioning and rehabilitation phases referred to in this EMP, they should assign this responsibility to a suitably qualified individual referred to in this plan as the Proponent's Representative (PR). The PR may be appointed to manage all phases of the exploration project or to manage only the EMP aspects for the project. The PR's responsibilities may include:

- Managing the implementation of this EMP and updating and maintaining it when necessary.
- Management and monitoring of individuals and/ or equipment on-site in terms of compliance with this EMP.
- Issuing fines for contravening EMP provisions.

Exploration Project Manager (as appropriate): This individual(s) will be responsible to ensure that the exploration and prospecting activities of the project are completed on time. The manager's duties and responsibilities will include:

- Ensure that relevant commitments contained in the EMP Action Plans are adhered to.
- Ensure relevant staff is trained in procedures entailed in their duties.
- Maintain records of all relevant environmental documentation for the project.
- Reviewing the EMP annually and amending the document when necessary.
- Issuing fines to individuals who may be in breach of the EMP provision and if necessary, removing such individuals from the site.
- Cooperate with all relevant interested and affected parties/stakeholders.

Development and management of schedules for daily activities.

Environmental, Health & Safety (EHS) Officer or Environmental Control Officer (ECO): The Proponent may assign the responsibility of ensuring EMP compliance throughout the project life cycle to a designated member of staff or an external qualified and experienced person, referred to in this EMP as the Environmental Control Officer (ECO) or Safety, Health & Environment, (SHE) Officer. The ECO/SHE will have the following responsibilities:

- Management and facilitation of communication between the Proponent, PR, and Interested and Affected Parties (I&APs) about this EMP.
- Conducting site inspections (recommended frequency is monthly during the operation phase and bi-annually for the operation and maintenance) of all areas to the implementation of this EMP (monitor and audit the implementation of the EMP).
- Advising the PR on the removal of person(s) and/or equipment not complying with the provisions of this EMP.
- Making recommendations to the PR with respect to the issuing of fines for contraventions of the EMP.
- Undertaking an annual review of the EMP and recommending additions and/or changes to this document.

Archaeology: Chance Finds Procedure (CFP) Implementation Roles

The following personnel have been assigned responsibilities as per the Chance Finds procedure (**Appendix 1**):

- **Operator:** To exercise due caution if archaeology remains are found.
- **Foreman:** To ensure site and advise management timeously.
- **Superintendent:** To determine safe working boundary and request inspection.
- **Archaeologist:** To inspect, identify, advise management, and recover remains.

The Proponent should assess these commitments in detail and should acknowledge their obligation to the specific management actions detailed in the Tables under the following sections.

2.1 Management of Key Potential Environmental Impacts to be managed

From the assessment conducted, the following key potential negative impacts have been identified per project phase and are summarized in **Table 3** below.

Table 3: Summary of key potential environmental impacts per project phase

	Project Phase	Potential negative impacts identified in the EA
1	Operation and maintenance	Biodiversity loss, dust generation, Occupational Health and safety risks, Scars to landscape, Possible disturbance to heritage/archaeological resources, Waste generation, Noise.
2	Decommissioning	Loss of the natural physical state at sites of exploration, Loss of employment by workers at the mining site and contribution to the national economy.

2.2 Aim of the Environmental Management Plan Actions

The aim of the management actions of the EMP is to avoid potential negative impacts where possible. Where impacts cannot be avoided, measures are provided to reduce the significance of these impacts.

Management actions recommended for the potential impacts rated in the EIA carried out for the prospecting and exploration activities were based on the three project phases listed below:

- Operation Phase (**Table 4**)
- Monitoring (**Table 5**)
- Decommissioning and Rehabilitation

The responsible person(s) should assess these actions in detail and acknowledge their commitment to the specific management actions detailed in the phases given under the following subsections.

2.3 Operation Phase Management Action Plans (Mitigation Plan)

The management action plans recommended for this phase are presented in **Table 4** below.

Table 4: Management action plans for the Operation and Maintenance Phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
PLANNING PHASE						
EMP implementation and training	Lack of EMP awareness and implications thereof	<p>A Comprehensive Health and Safety Plan for the project activities should be compiled. This will include all the necessary health, safety, and environmental considerations applicable to respective works on sites.</p> <p>An EMP non-compliance penalty system should be implemented on site.</p> <p>The Proponent should appoint an EHS Officer to be responsible for managing the EMP implementation and monitoring.</p>	<p>All required Plans and systems are compiled and in place.</p> <p>and Environmental, Health & Safety (EHS) Officer or Environmental Control Officer (ECO) is appointed</p>	Proponent	EMP implementation Plans and Systems	Pre-exploration works
Authorizations	Lack of Agreements, Permits/ Licenses	<p>All the required agreements and licenses or permits should be applied for and signed, respectively before commencement of work on the EPL, or as required.</p> <p>The permits, agreements referred to herein include land access & use (by the custodian of the land</p>	<p>Applicable permits and licenses to obtained from relevant authorities and kept on site for records keeping and future inspections.</p> <p>Agreements/permits signed and obtained</p>	Proponent	<p>Proponent</p> <p>Respective authorities and services provider(s)</p>	Prior to exploration works

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		(by MEFT's Parks Division), waste management disposal permits from the relevant facility operator/owner, water supply agreement and should there be fuel handling on-site, petroleum storage permits from Ministry of Mines and Energy (MME), etc.	from on time, min. 2 months prior to planned commencement date of works.			
Communication between the Proponent and other neighbouring land users and custodians	Lack of communication (proper liaison) between other land users and Proponent with regards to land use	The Proponent should appoint a Public Relation Officer (PRO) to liaise with the land users and or custodians. A clear communication procedure/plan which should include a grievance mechanism should be compiled.	A PRO is appointed Ongoing Stakeholders' and Public Engagement & Consultation throughout the project cycles, when and as required. PRO contact details to be provided to the affected land users and custodian	Proponent	PRO Complaint's logbook	PRO appointment (Prior to project activities) and their responsibilities throughout the project activities
Employment	Creation of employment opportunities	Non-skilled labour should be sourced from the locally affected area (people from the local communities), in accordance with procedures approved by the relevant authorities.	Number of locals employed for exploration activities	Proponent in collaboration with the Site/Project Manager (if necessary)	Record of employees	Pre-project activities and when necessary, throughout

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		Equal opportunities should be provided for both men and women.				
Specialised procurement of services	Exploration and Mining contractors and services	All services related to small-scale mining activities such as trenching/pitting and drilling that the Proponent may need, preference should be given to local providers of such services. If not available locally, the services search should be extended to a regional level (Otjozondjupa Region) and lastly, nationally.	Number of hired contractors	Proponent Site/Project Manager	Record of hired or contracted companies or services providers	Pre-project activities and when necessary, throughout
PROSPECTING AND OPERATIONAL PHASE						
EMP implementation and training	Lack of EMP awareness and implications thereof	<p>EMP trainings should be provided to all new workers on site.</p> <p>All site personnel should be aware of necessary health, safety, and environmental considerations applicable to their respective work.</p> <p>The implementation of this EMP should be monitored.</p> <p>The site should be inspected, and a compliance audit done throughout <u>the project activities, monthly.</u></p>	Compliance monitoring conducted monthly for the operational phase and should be recorded.	EHS Officer	<p>Bi-annual reports</p> <p>Records of EMP training conducted.</p>	Throughout the operational phase and as required

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		An EMP non-compliance penalty system should be implemented on site.				
Communication between the Proponent and other neighbouring land users and custodians	Lack of communication (proper liaison) between other land users and Proponent with regards to land use	<p>The PRO should be introduced to the neighbouring land users or the representative and his or her contact details provided to them prior to undertaking activities for easy communication during the exploration activities.</p> <p>The Proponent should compile a clear communication procedure/plan which should include a grievance and response mechanism.</p>	<p>PRO is part of the project personnel.</p> <p>Ongoing Stakeholders' and Public Engagement & Consultation throughout the project cycles, when and as required</p>	PRO	<p>Complaint's logbook</p> <p>PRO contact details to be provided to the affected land users.</p> <p>Records of Stakeholders' and Public Consultations</p>	Throughout the project activities
Water Resources Use	Over-abstraction (water demand and availability)	<p>Abstraction of water from local aquifers should be avoided at all costs by ensuring that part of the required water is sourced from the boreholes on nearest farms (through agreed purchase) and or augmented by carted water from areas with better supply.</p> <p>The Proponent should prioritize carting water from outside the project area and reach an agreement with owners/officials of nearby water to supply water for</p>	<p>Water supply agreements</p> <p>Proof/ recording/ quantification of water saving efforts.</p>	<p>Proponent</p> <p>Site/Project Manager</p>	<p>Water supplier</p> <p>Proponent</p> <p>Water storage tanks on site</p>	<p>Once off supply agreement</p> <p>Throughout the phase</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>drinking (to augment the project water needs).</p> <p>Although water will not be abstracted from the local aquifers, the water user (Proponent) should be water-use conscious and consider voluntary water use reduction by sticking to their proposed threshold volumes or less when more water is not really required.</p> <p>The Proponent should aim to use water efficiently, recycle and re-use where necessary and possible.</p> <p>Water reuse/recycling methods should be implemented as far as practicable for exploration activities. The water used to cool off operational equipment should be captured and used for the cleaning of project equipment, if possible.</p> <p>Water conservation awareness and saving measures training should be provided to all the project workers in both phases so that they understand the importance of conserving water and become accountable.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Soils	Physical soil/land disturbance and loss of topsoil	<p>Overburden should be handled more efficiently during operations to avoid erosion when subjected erosional processes.</p> <p>Stockpiled topsoil and drill materials should be used to backfill the excavated and disturbed site areas/spots.</p> <p>Soils that are not within the intended and targeted footprints of the site should be left undisturbed and soil conservation implemented as far as possible.</p> <p>Project vehicles and machinery should stick to access roads provided and/or meant for the project operations but not to unnecessarily create further tracks on site by driving everywhere resulting in soil compaction.</p> <p>The disturbance of the soil surface in the vicinity of the working sites must be minimised to prevent wind erosion. The footprint of the EPL site area must be kept small as much as possible and existing access road are to be always utilised to avoid off road tracks.</p> <p>The project footprint area should not be cleared entirely, and the</p>	<p>No proliferation of informal vehicle tracks.</p> <p>No new erosion gullies.</p>	EHS Officer/ECO	<p>Proponent</p> <p>All personnel</p> <p>Complaints logbook</p>	Throughout the Operational phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>operational vehicles and equipment must be placed in such a way that soil disturbance is minimised, and the site should be rehabilitated after each onsite work.</p> <p>Utilize the existing road trucks as far as possible to minimize the creation of unnecessary and long-term footprints on the already sensitive desert soils.</p>				
Soils and water resources	Soils and water resources' pollution	<p>Oil and wastewater spill control preventive measures should be in place on site to management soil contamination, thus preventing and or minimizing the contamination from reaching water resources bodies. Some of the soil control preventive measures that can be implemented include:</p> <ul style="list-style-type: none"> -Identification of oil storage and use locations on site and allocate drip trays and polluted soil removal tools suitable for that specific surface (soil or hard rock cover) on the sites. -Maintain equipment and fuel storage tanks to ensure that they are in good condition thus preventing leaks and spills. 	<p>No complaints of pollutants on the soils and eventually in the water due to small-scale mining activities</p> <p>No visible oil spills on the ground or pollution spots.</p>	EHS Officer	<p>Complaint's logbook</p> <p>Waste containers</p> <p>Non-permeable material to cover the ground surface at areas where hydrocarbons and potential pollutants are utilized.</p>	Throughout Operational phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>-The oil storage and use locations should be visually inspected for container or tank condition and spills.</p> <p>-Maintain a fully provisioned, easily accessed spill kit. Spill kits should be located throughout the active project sites contain the floor dry absorbent material and absorbent booms, pads, mats. These would be suitable for ground surface areas that are covered mainly by hard rocks.</p> <p>All project employees should be sensitized about the impacts of soil pollution and advised to follow appropriate fuel delivery and handling procedures.</p> <p>The Proponent should develop and prepare countermeasures to contain, clean up, and mitigate the effects of an oil spill. This includes keeping spill response procedures and a well-stocked cache of supplies easily accessible.</p> <p>Ensure employees receive basic Spill Prevention, Control, and Countermeasure (SPCC) Plan training and mentor new workers as they get hired.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>EPL site area where hydrocarbons will be utilized, the surface should be covered with an impermeable plastic liner (e.g., an HDPE liner), carefully placed to minimize risk of puncturing, to prevent any spillages from getting into direct contact with the soils and prevent eventual infiltration into the ground.</p> <p>Project machines and equipment should be equipped with drip trays to contain possible oil spills when operated on site.</p> <p>In cases of accidental fuel or oil spills on the soils from site vehicles, machinery and equipment, the polluted soil should be removed immediately and put in a designate waste type container for later disposal as per the preceding bullet point. The removed polluted soil should either be completely disposed of or cleaned and returned to where it was taken from on site or can be replaced with a cleaner soil. This is to ensure that the pollutants contained in the soil does not infiltrate into the site soils and eventually reach to groundwater.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Although fuel (diesel) required for operational equipment will be stored in a tank mounted on a mobile trailer, drip trays must be readily available on this trailer and monitored to ensure that accidental fuel spills along the tank trailer path/route around the EPL site area are cleaned on time (soon after the spill has happened).</p> <p>If any accidental pollution occurs on site soil, the polluted soil must be collected and transported away from the site to an approved and appropriately classified hazardous waste treatment facility.</p> <p>Washing of equipment contaminated hydrocarbons, as well as the washing and servicing of vehicles should take place at a dedicated area, where contaminants are prevented from contaminating soil or water resources.</p>				
Biodiversity	Loss of Fauna and Flora	<p><u>Fauna</u></p> <p>The project workers should refrain from killing species (big or small and all types) that may be found on and around the site.</p>	<p>No disturbance to unmarked areas.</p> <p>No complaints from locals regarding unauthorised vegetation</p>	EHS Officer	<p>Barricading tape (to indicate working areas)</p> <p>Complaint logbook</p>	Throughout the Operational phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Workers should refrain from disturbing and poaching animal species found on the EPL area and the surrounding areas.</p> <p>Access roads (even existing ones) should be utilized appropriately in a manner that disturbs minimal land areas as possible, thus minimizing faunal habitat destruction.</p> <p>Make use of the existing road network as much as possible and avoid off-road driving to reduce the risk of habitat destruction and small faunal species in burrows.</p> <p>Breeding sites for faunal species should not be disturbed.</p> <p>Environmental awareness on the importance of biodiversity preservation should be provided to the workers.</p> <p>Flora:</p> <p>The Proponent should avoid unnecessary removal of vegetation, thus promoting a balance between biodiversity and their operations.</p> <p>Vegetation found on the site, but not in the targeted exploration area</p>	<p>removal or cutting down of trees.</p> <p>No complaints of wildlife hunting by the project personnel.</p> <p>No intentional disturbance and destruction of site vegetation and faunal species.</p> <p>Visible preservation of onsite vegetation.</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>should not be removed but left to preserve biodiversity on the site.</p> <p>Movement of vehicle and machinery should be restricted to existing roads and tracks to prevent unnecessary damage to the vegetation.</p> <p>Onsite vegetation should not be cut, damaged, or used for any project related activities without prior approval from the Parks Division.</p> <p>Even if a certain vegetation is found along the exploration site, this does not mean that it should be removed. Therefore, care should be taken when prospecting and exploration activities are implemented without destroying the site vegetation.</p> <p>Design access roads appropriately in a manner that disturbs minimal land areas as possible.</p> <p>Make use of the existing road network as much as possible and avoid off-road driving, thus minimizing onsite floral destruction.</p> <p>Vegetation clearing are to be kept to a minimum. The vegetation of</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>the site is largely low and open and therefore whole-sale vegetation clearing should only be applied where necessary and within the development footprint.</p> <p>Plants on sites should not be unnecessarily removed. Care should be taken when extracting mineral species without destroying the vegetation and its surrounding.</p> <p>No-go areas should be identified prior to operation to prevent disturbances in the current preserved ecosystems.</p> <p>Environmental awareness on the importance of floral biodiversity preservation should be provided to the workers.</p> <p>It is recommended that a Search and Rescue Management Plan be drafted (with monitoring plan) and that this Plan include the necessary permit/s as per the Forest Act (No. 12 of 2001, as amended) if threatened or protected species removal is a necessity.</p> <p>This Plan should be implemented by a forester and to be present during site lay-out and demarcation, to identify protected</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		and threatened species. Site layout should be done within a carefully planned and responsible manner to avoid unnecessary removal of ground cover as well.				
Illegal hunting	Illegal hunting of wildlife	No wildlife hunting is permitted. Site personnel should refrain from killing/poaching or intentionally disturbing wildlife, or any faunal species found on site and around the EPL site.	Incident reports of illegal hunting of wildlife by the crew.	EHS Officer	Complaint's logbook MEFT Parks' Division Anti-poaching Police Unit	During site set up, and throughout operational phase
Land Use	Conflict between neighbouring land uses and exploration activities	Prospecting and exploration activities should not in any way hinder the existing land uses within the EPL area but rather promote co-existence throughout the operations while respecting other land users. The project workers and vehicles should be limited to the actual EPL active site only but not unnecessarily wander and drive around other land uses sites, respectively. The Proponent should ensure that their activities comply with the conditions set by the competent, regulatory, and affected authorities such that the proposed exploration activities do not severely impact	Land access and use permits/authorizations. Compliance with conditions set within operational permits by relevant and affected authorities. Little to no complaints of significant interference from the neighbouring land users	PRO Proponent EHS Officer/ECO	Proponent Relevant authorities (MEFT, MME, etc.)	Throughout the Operational phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		the different existing activities within and around the EPL.				
Aesthetics of the area	Impact on Visual	<p>The Proponent should consider the implementation of continuous rehabilitation programme, by using topsoil and overburden waste rocks and restoring and vegetation harmed through the process, to visually maintain the landscape's natural setting.</p> <p>The Proponent should not create unnecessary routes (access roads), which lead to landscape scarring on-site by utilizing existing road trucks as far as possible to minimize the creation of unnecessary and long-term footprints on the already sensitive desert soils.</p> <p>The Proponent should carry out progressive working and restoration/rehabilitation over the shortest timescale possible, to avoid excessive areas of disturbance on site.</p> <p>Consider setting up drill rigs and associated facilities further from the roads' parts of the EPL to reduce the sight from road users.</p>	<p>No further major contribution to the visual impact in the area.</p> <p>No complaints from the locals regarding major eyesore due to unmanaged site restoration/rehabilitation.</p> <p>Visible progressive backfilling was done to reduce landscape contrast.</p>	<p>Proponent</p> <p>Site/Project Manager</p>	<p>Complaint's logbook</p>	<p>Throughout the Operational phase</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>In the case that two or more confirmed targets for detailed exploration activities are close to the roads, consider working as fast as possible on sites that are closest to the roads to ensure that the presence of trucks, drill rigs, and associated structures is shortened.</p> <p>Avoid using vehicles, equipment, machinery, and even ablution facilities with different contrasting colors so that they do not cause a significant contrast on-site (different bright colors present on-site).</p>				
Road use and safety	Increase in vehicular traffic flow	<p>Vehicles should be driven only on existing access roads and necessary temporary access roads only leading to EPL mapped sites; no new roads should be constructed.</p> <p>The transportation of Operational materials, equipment, and machinery should be limited to once or twice a week only, but not every day.</p> <p>The heavy truckloads should comply with the maximum allowed limit while transporting materials</p>	<p>No complaints from members of the public regarding vehicular traffic issues related to the project activities.</p> <p>All personnel operating the project vehicles and machinery are appropriately licensed and possession of valid driving licenses.</p>	<p>Proponent</p> <p>EHS Officer/ECO</p>	None	<p>Throughout Operational phase</p> <p>Site access permit (s) to be applied for and obtained prior to commencement of exploration works</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>and equipment/machinery on the public and access roads.</p> <p>The carted water into the area from outside the project area Karibib should be done once or twice a week in the container that can supply and store water for most of the week, thus reducing the number of trucks on the road.</p> <p>Drivers of all project phases' vehicles should own a valid and appropriate driving license.</p> <p>Vehicle drivers should adhere to the road safety rules.</p> <p>Drivers should drive slowly (40km/hour or less), and be on the lookout for wildlife and people.</p> <p>Project vehicles should be in a roadworthy condition and serviced regularly to avoid accidents because of mechanical faults of vehicles.</p> <p>Vehicle drivers should only make use of designated site access roads provided.</p> <p>Vehicle drivers should not be allowed to operate vehicles while under the influence of alcohol.</p>	<p>Demarcated areas for parking, offloading, and loading zones are on sites.</p> <p>If required, site access road permits are obtained, and requirements fulfilled.</p> <p>No creation of unnecessary tracks on site.</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Sufficient parking areas for all project vehicles should be provided for and clearly demarcated on sites.</p> <p>The Proponent should make provision for safe materials and equipment offloading and loading areas on sites.</p> <p>No heavy trucks or project-related vehicles should be parked outside the project site boundary or demarcated areas for such purposes.</p> <p>Truck movements, frequency, times, and routes should be carefully planned and scheduled – please refer to the next point.</p> <p>To control traffic movement on site, deliveries from and to the site should be carefully scheduled. This should optimally be during weekdays and between the hours of 8am and 5pm.</p>				
Health and safety	General health and safety associated with project activities in both phases	<p>The Labour Act's Health and Safety Regulations should be complied with.</p> <p>As part of their induction, the project workers should be provided with an awareness training of the risks of mishandling equipment</p>	Comprehensive health and safety plan for all exploration activities compiled.	Proponent Site/Project Manager	Occupational Health and Safety Personnel Health and Safety Trainings	Throughout the project phase and trainings offered as and when required

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>and materials on-site as well as health and safety risk associated with their respective jobs.</p> <p>When working on-site, employees should be properly equipped with adequate personal protective equipment (PPE) such as coveralls, gloves, safety boots, earplugs, dust masks, safety glasses, etc.</p> <p>Heavy vehicles, equipment, and fuel storage site should be properly secured, and appropriate warning signage placed where visible.</p> <p>No employee should be allowed to consume alcohol or other intoxicants before and during working hours as this may lead to mishandling of equipment which results into injuries and other health and safety risks.</p> <p>Employees should not be allowed on-site if under the influence of alcohol or any intoxicants.</p> <p>Ensure that after completion of Operational holes, drill cuttings are put back into the hole and the holes filled and leveled.</p>		EHS Officer/ECO		

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>An emergency preparedness plan should be compiled, and all personnel appropriately trained.</p> <p>The site is to be equipped with "danger" or "cautionary" signs for any potential danger or risk area identified on-site.</p> <p>All employees and contractors (personnel) to be trained on environmental awareness, the Proponent's internal Environmental Health and Safety Policy, Environmental Management Plan, and engagement with key stakeholders, specifically the key government ministries and farmers.</p>				
	<p>Potential increase of prevalence of HIV and AIDS, as well as other sexually transmitted diseases (STIs) prevalence</p>	<p>The workers should be engaged in health talks and training about the dangers of engaging in unprotected sexual relations which results in contracting HIV/AIDS and other sexually related infections.</p> <p>Provision of condoms and sex education through distribution of pamphlets. These pamphlets can be obtained from local health facilities.</p>	<p>No new infections were recorded linked to exploration workers</p>	<p>Proponent</p> <p>EHS Officer/ECO</p>	<p>Occupational health and safety personnel</p> <p>Sex and Health Education/Awareness</p> <p>Provision of condoms at the accommodation facilities</p>	<p>Throughout Operational phase</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
	Accidental fire outbreak	<p>Portable fire extinguishers should be provided on-site.</p> <p>No open fires are to be created by the operational personnel.</p> <p>Potential flammable areas and structures such as fuel storage tanks should be marked as such with clearly visible signage.</p>	No wildfires were recorded (due to presence of workers)	<p>Proponent</p> <p>EHS Officer</p>	Fire extinguishers (1 per vehicle) and 1 per working site	Throughout Operational phase
Archaeology and heritage	Accidental disturbance and destruction of archaeological or heritage objects and sites	<p>Contractors working on the site should be made aware that under the National Heritage Act, 2004 (Act No. 27 of 2004) any items protected under the definition of heritage found during development should be reported to the National Heritage Council.</p> <p>The Proponent should consider having a qualified and experienced archaeologist on standby/call during the entire operational phase. This action will be to assist on the possibility of uncovering sub-surface graves or other cultural/heritage objects and advise the Proponent accordingly.</p> <p>Pre-identified sites of heritage/archaeological significance should be regarded as</p>	Preservation of all artefacts and objects that are discovered on and around the project site	<p>EHS Officer</p> <p>Operator</p> <p>Foreman</p> <p>Superintended</p> <p>Archaeologist</p>	<p>Salvage equipment</p> <p>Flag tapes</p> <p>GPS (site marking)</p>	As and when required, i.e., prior to site set up, and during operations.

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>no-go zones for exploration activity within the EPL area.</p> <p>Graves or any archaeological significant objects discovered on the site during operation should not be disturbed but are to be reported to the project Environmental officer or National Heritage Council offices.</p> <p>A detailed field survey should be carried out if suspected archaeological resources or major natural cavities / shelters have been unearthed during the operations.</p> <p>Site specific management and mitigation measures by the archaeologist should be implemented.</p> <p>The worksite manager should familiarise themselves with the National Heritage Council's Chance Finds Procedure (CFP) - please refer to Appendix 1 of this document and if uncertain about the procedure should receive training by a suitably qualified archaeologist with respect to the identification of archaeological/heritage remains and the procedures to follow if</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>such remains are discovered throughout the project activities' duration.</p> <p>Emphasis: sub-surface materials may still be lying hidden from surface surveys. Therefore, absence (during surface survey some site areas) is not evidence of absence altogether. The recommended and necessary measures, monitoring, and reporting procedures must be followed in the event of a chance find, to ensure compliance with heritage laws and policies for best practice.</p>				
<p>Littering and waste management (general waste and sanitation)</p>	<p>Environmental Pollution</p>	<p>Both biodegradable and non-biodegradable wastes must be stored in separate containers and collected regularly for disposal at a certified landfill/ dumpsite.</p> <p>Any hazardous waste that may have an impact on the animals, vegetation or the environment should be handled cautiously and disposed of in accordance with hazardous waste management guidelines.</p>	<p>No visible litter around the project area</p> <p>Provision of sufficient waste storage containers</p> <p>Waste management awareness</p>	<p>EHS Officer/ECO</p>	<p>Waste storage containers</p>	<p>Throughout Operational phase</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>No refuelling of vehicles on site. Refuelling should only be done on the EPL at a nearby designated refuelling facility.</p> <p>Workers should be sensitized to dispose of waste in a responsible manner and not to litter.</p> <p>After each daily works, the Proponent should ensure that there are no waste left on the sites.</p> <p>All domestic and general operational waste produced daily should be contained until such that time it will be transported to designated waste sites.</p> <p>No waste may be buried or burned on site or anywhere else.</p> <p>The EPL site should be equipped with separate waste bins for hazardous and general waste/domestic.</p> <p>Sewage waste should be stored as per the portable chemical toilets supplied on site and regularly disposed of at the nearest treatment facility.</p> <p>Accidental oil spills should be taken care of by removing and treating soils affected by the spill.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>A penalty system for irresponsible disposal of waste on site and anywhere in the area should be implemented.</p> <p>Careful storage and handling of hydrocarbons on site is essential.</p> <p>Potential contaminants such as hydrocarbons and wastewater should be contained on site and disposed of in accordance with municipal wastewater discharge standards so that they do not contaminate surrounding soils and eventually groundwater.</p> <p>An emergency plan should be available for major/minor spills at the site during operation activities (with consideration of air, groundwater, soil, and surface water) and during the transportation of the products(s) to the site.</p> <p>After each daily works, there should not be waste left scattered on-site, but rather be disposed of in the allocated site waste containers.</p> <p>No waste may be buried or burned on-site or anywhere else throughout the project lifecycle.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>All domestic and general waste produced daily should be contained until such that time it will be transported to designated waste sites weekly.</p> <p>The sites should be equipped with separate waste bins for hazardous and general waste/domestic.</p> <p>Hazardous waste, including emptied chemical containers, should be safely stored on-site until such time that they are transported to the nearby approved hazardous waste sites for safe disposal.</p> <p>A penalty system for irresponsible disposal of waste on-site and anywhere in the area should be implemented.</p>				
	Wastewater generated by exploration workers living on-site.	<p>Provision of toilet facilities for workers (mobile/portable chemical toilet).</p> <p>Emptying of chemical toilets according to the manufacturer's specifications. Treating latrine waste to render non-polluting.</p>	Adequate toilet and basic ablution facilities on site.	<p>Proponent</p> <p>EHS Officer/ECO</p>	<p>Chemical toilets</p> <p>Sewage removal operator</p> <p>Waste treatment agents/chemicals</p>	Throughout Operational phase
Air Quality	Dust generation	The Proponent should ensure that the operational schedule is limited to the given number of days of the	No complaints from the public about vehicle	EHS Officer/ECO	Complaint's logbook	Throughout Operational phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>week, and not every day. This will keep the vehicle-related dust level minimal in the area.</p> <p>Given the limited vegetation cover, soils are exposed, it is highly probable that more dust will be generated from exploration activities (excavating).</p> <p>Operational vehicles should not drive at a speed more than 40 km/h to avoid dust generation around and within the site area.</p> <p>The Proponent should ensure that the operational schedule is limited to the given number of days of the week, and not every day. This will keep the vehicle-related dust level minimal in the area.</p> <p>Dust masks, eye-protective glasses, and other respiratory personal protective equipment (PPE) such as face masks should be provided to the workers on-site drilling areas, where they are exposed to dust.</p> <p>Excavating equipment should be regularly maintained to ensure drilling and excavation efficiency and so as to reduce dust</p>	<p>emissions and dust generation.</p> <p>Visible efforts to curb dust</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		generation and harmful gaseous emissions.				
Noise	Nuisance	<p>The transportation of Operational materials, equipment, and machinery should be limited to once or twice a week only, but not every day.</p> <p>Noise from project vehicles and equipment operations vehicles and equipment on the working sites of the EPL should be at acceptable levels.</p> <p>The operational times should be set such that, no such activities are carried out during the night or very early in the mornings (to be limited between 8 am and 5 pm on weekdays).</p> <p>Operational hours should be restricted to between 08h00 and 17h00 to avoid noise and vibrations generated by operational equipment and the movement of vehicles before or after hours.</p> <p>When operating the excavation and drilling machinery or close to noise-producing equipment and machinery on-site, workers should be equipped with personal</p>	Complaints from neighboring land users about excessive noise.	EHS Officer/ECO	Complaint's logbook	Throughout Operational phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>protective equipment (PPE) such as earplugs to reduce noise exposure. This PPE should be regularly checked/tested for effectiveness and on the detected malfunction, the PPE should be replaced as soon as possible.</p> <p>When operating the drilling machinery onsite, workers should be equipped with personal protective equipment (PPE) such as earplugs to reduce noise exposure.</p>				
PROGRESSIVE REHABILITATION AND DECOMMISSIONING PHASE						
Rehabilitation	Disturbance and damaging of land site	<p>All drilled boreholes and excavated pits related to the project activities should be capped and backfilled, respectively.</p> <p>All waste generated and stored on-site during operation activities should be disposed of at the respective nearest solid waste management sites.</p> <p>The stockpiled topsoil should be leveled soon after completion of works at sites.</p> <p>Any temporary setup on site should be dismantled, and the area</p>	<p>Capped boreholes and backfilled pits</p> <p>No sign of waste or littering seen on-site and around site areas.</p> <p>Carrying away of waste, and removal of vehicles and equipment from the site.</p> <p>No stockpiled topsoil (topsoil is levelled after completion of each work)</p>	Proponent	<p>Excavators and other backfilling/demolishing machinery</p> <p>Record of pits excavated, and boreholes drilled (if any)</p> <p>Waste containers on sites</p> <p>Photo records of backfilled sites</p>	<p>Progressive rehabilitation done throughout the Operational phase and complete decommission and rehabilitation done after completion of exploration works.</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		rehabilitated as far as practicable, to their original state. Explored areas on worksites should be progressively rehabilitated by stockpiling and backfilling. Provision of both financial and technical resources for progressive rehabilitation.	Campsite dismantled and materials taken away from site. Visible signs of stockpiled topsoil.		Records of finances set aside for decommissioning activities	

2.4 Phase 2: Monitoring Phase Management Action Plans (Monitoring Plan)

In order to support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented. The monitoring action plans recommended for planned exploration works are presented in **Table 5** below.

Table 5: Management action plans for the Monitoring Phase

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
Soils	Loss of topsoil	All measures should be considered to prevent the loss of topsoil	EHS Officer/ECO and Site Manager	weekly	Proliferation of new vehicle tracks	Rehabilitation of affected areas
Monitoring	EMP non-compliance	The ECO or the Proponent/Contractor should monitor the implementation of this EMP to ensure compliance.	EHS Officer/ECO	Daily	Increase in health, safety and environmental damage incidence	Daily safety talks, Remedy the consequences

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		The ECO(s) should inspect the site throughout the operational period and after completion.				
Biodiversity	Loss of biodiversity	<p>Comply to marked no-go areas and avoid areas sensitive to any type of disturbance.</p> <p>Clear only footprint areas to maintain as much of the remaining natural vegetation on-site and to prevent loss of habitat (if so, advised by MEFT).</p> <p>A Search and Rescue Management Plan should be drafted (with monitoring plan) and that this Plan include the necessary permit/s as per the Forest Act (No. 12 of 2001, as amended) if threatened or protected species removal is a necessity.</p>	<p>EHS Officer/ECO</p> <p>Workers involved in this phase</p>	Weekly	Vegetation clearance outside of marked areas.	Rehabilitation of affected areas to the satisfaction of the EHS Officer
Health and Safety	Health and safety of the workers	<p>Workers should be trained on how to handle materials and equipment on-site (if they do not already know how to) to avoid injuries.</p> <p>Operational equipment and materials transported to the site should be securely fastened to the vehicles (trucks and cars). This is to ensure</p>	<p>EHS Officer/ECO</p> <p>Worker Involved in this phase</p>	Daily/Weekly	Health and safety incident	Remedy the consequences

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		<p>that the materials and equipment do not fall off the vehicles and cause injuries to anyone while transporting them.</p> <p>The proponent and EHS Officer/ECO should ensure that all personnel are provided with appropriate personal protective equipment (PPE), such as gloves, masks, safety boots, safety glasses, and hard hats always during operational hours on-site to prevent serious injuries or loss of life.</p> <p>No employee should be allowed to drink alcohol before and during working hours as this may lead to mishandling of equipment which results into injuries and other health and safety risks.</p>				
Noise	Disturbance to Neighboring land users	Operational works schedule should be limited to normal working hours, between 08h00 and 17h00. This is to ensure generated noise does not become a nuisance to the neighbors.	EHS Officer/ECO Site Manager	Weekly	A logged complaint about excessive noise	Revision of site activities

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
Waste	Environmental Pollution	<p>The EPL site should always be kept tidy.</p> <p>All domestic and general construction waste produced daily should be cleaned and contained daily to prevent environmental pollution.</p> <p>Separate waste containers (bins) for hazardous and domestic/general waste must be provided on-site to avoid mixing of waste.</p>	<p>EHS Officer/ECO</p> <p>All workers involved in this phase.</p>	Daily	<p>Visible litter around project site</p> <p>A logged complaint</p>	<p>Clean-up of the affected areas and ensuring mining workers utilise waste containers provided.</p>
Transport	Transportation of workers to and from site	<p>Project workers will be transported, in an SUV/ bus (or similar suitable passenger vehicle) to and from site to prevent inhaling dust or being exposed to blowing desert winds.</p> <p>No off-road driving.</p>	EHS Officer/ECO	Daily	A logged complaint about a bad form of transport affecting occupational safety and health of workers	
Vehicular traffic safety	Increase in local traffic flow.	<p>All drivers of the project vehicles should have a valid and appropriate driving license to operate such vehicles.</p> <p>Project vehicles should be in a roadworthy condition and serviced</p>	EHS Officer/ECO	Weekly	A logged complaint about traffic increase or damage to roads	Find alternative access roads for the team. Rehabilitation of affected roads

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		regularly to avoid accidents because of mechanical faults of vehicles. Vehicle drivers should not be allowed to operate vehicles while under the influence of alcohol. No heavy trucks or project-related vehicles should be parked on biologically sensitive areas.				

2.5 Phase 3: Decommissioning and Rehabilitation Phase

Decommissioning and rehabilitation will involve the following:

- Necessary landscaping of exploration areas will be undertaken upon completion of each phase of exploration
- Capping or backfilling of all drilled holes with loose materials.
- Collecting and disposing of domestic waste at the nearest landfill/dumpsite.
- Leveling the stockpiled topsoil during exploration activities.
- Any temporary setup of camps should be dismantled, and the area should be rehabilitated as far as possible to its original state.

Site-Specific Rehabilitation Plan

To ensure that they do their best to rehabilitate the disturbed areas, the Proponent intends to:

- Utilize stockpiled subsoil and topsoil to backfill the excavated pits/trenches.
- Make financial provisions that will be used for the post-operational rehabilitation program.
- Backfilling of all mining pits with loose materials.
- Levelling of topsoil that was stockpiled for mining purposes.
- Removal of project vehicles and equipment from the site and taken to designated parking facility off-site.
- All project support structures such as ablution facility (toilet and washroom system), and storage containers/tanks shall be demolished, and the waste taken to designated sites. The site areas on which these structures were set up will be rehabilitated to a pre-operational state.
- All accumulated waste (hazardous, solid, and general) up until the cessation of the prospecting and exploration activities will be removed from the site and transported to designated off-site waste management facilities.

Decommissioning and rehabilitation will involve the following:

- Necessary landscaping will be undertaken upon completion of each phase of operation
- Capping or backfilling of all excavated pits with loose materials.
- Collecting and disposing of domestic waste at the nearest landfill/ dumpsite.
- Leveling the stockpiled topsoil during the operational phase.

Any temporary setup of camps should be dismantled, and the area should be rehabilitated as far as possible to its original state

3 ENVIRONMENTAL MONITORING

To minimize the "medium" and uphold the "low" significance ratings of impacts identified and assessed in the EA report; bi-annual EMP compliance audits should be carried out during the course of the project cycle. The first bi-annual audit exercise should be done counting 6 months from the date of ECC issuance. Monitoring reports are to be compiled and submitted to the Department of Environmental Affairs (DEA) for archiving. This practice will make any considerations for ECC renewal easy when it is about to expire. Therefore, the Proponent should meritoriously monitor and submit the reports to the DEA. The submission is not only done for record-keeping purposes, but it is also in compliance with the environmental legislation.

4 CONCLUSION

Potential negative and positive impacts caused by the proposed prospecting and exploration activities were acknowledged, assessed, and mitigation measures made thereof. The mitigation measures indorsed in the EA report and management action plans provided in the draft Environmental Management Plan can be considered adequate to elude and/or reduce the risks to acceptable levels. Therefore, Excel Dynamic Solutions (Pty) Ltd as an Environmental Consultant will assure that these measures are sufficient to enable environmentally sustainable and safe exploration works on EPL 7950. Therefore, it is recommended that an ECC issued in this regard should be issued on the condition that the provided management measures and action plans are effectively implemented on-site and monitored. Predominantly, monitoring of the environmental components described in the EA should be conducted by the Proponent and applicable Competent Authorities. This is to ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed. Furthermore, should the ECC be issued, the proponent will be expected to be compliant with the ECC conditions as well as legal requirements attached to the prospecting and exploration activities.