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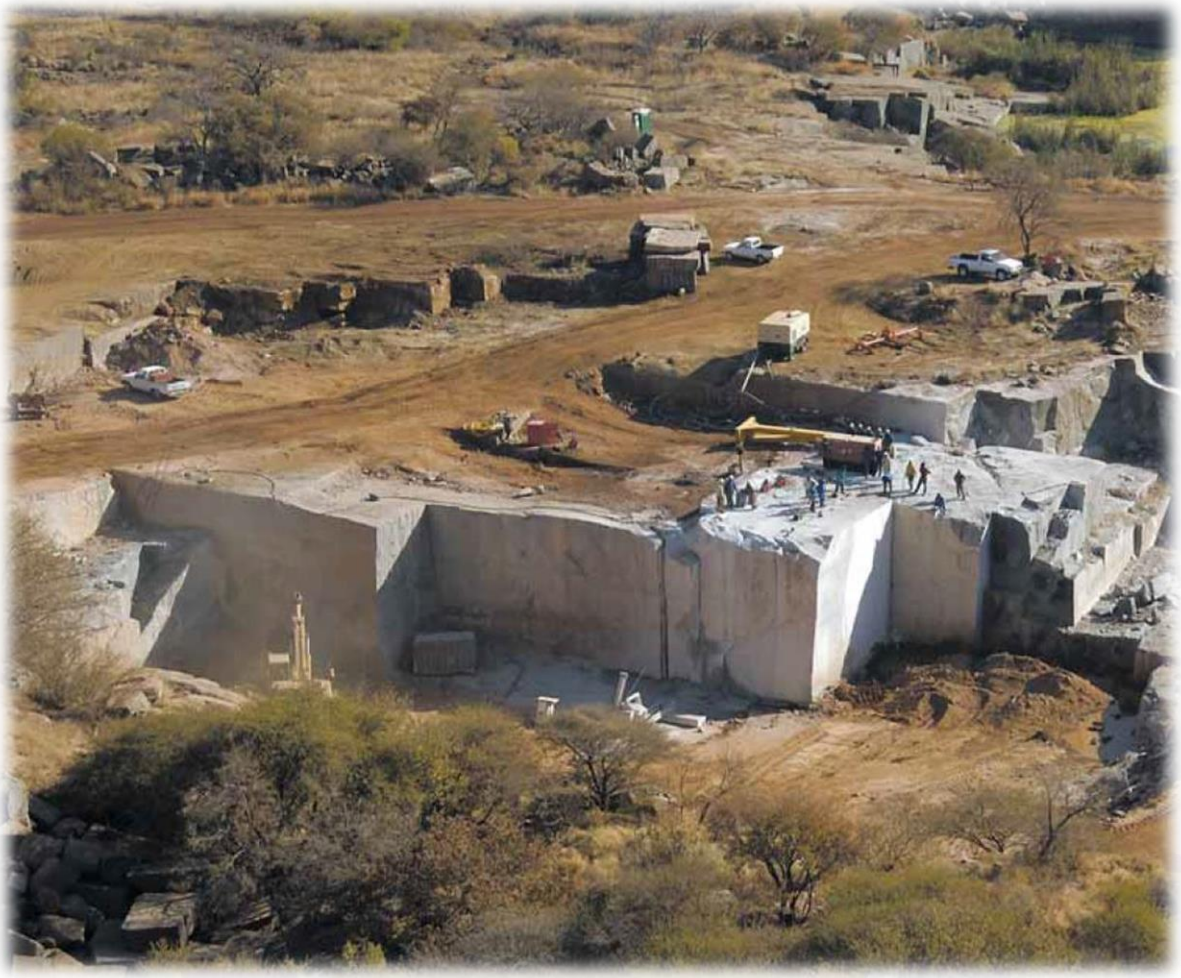

Environmental Management Plan (EMP) for proposed exploration of dimension stone on EPL 5161, Erongo Region, Namibia

Date: 04 June 2020

Prepared for: Best Cheer Investments Namibia (Pty) Ltd

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ABBREVIATIONS

EA	Environmental Assessment
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EM	Exploration Manager
EMA	Environmental Management Act
EMP	Environmental Management Plan
ESA	Environmental Scoping Assessment
I&APs	Interested and Affected Parties
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
NBG	National Botanical Gardens
OGGC	OMAVI Geotechnical and Geo-environmental Consultants cc

1 PROJECT BACKGROUND

Best Cheer Investments Namibia (Pty) Ltd (*the client or Best Cheer hereafter*) intends to carry out exploration activities to investigate the potential of granites and granitoid bodies on Exclusive Prospecting License (EPL) no. 5161, for use as dimension stones. The EPL is approximately located between coordinates 22.284568°S/ 15.059525°E and 22.319516°S/ 15.295920°E, about 25 km northeast of Arandis and covers an area of about 5059 ha. The area falls under the Karibib Constituency jurisdiction and extends across three (3) commercial farms namely Vergenoeg (no. 92), Valencia (no. 122), Namibplaas (no. 93) and one (1) communal farm Trekkopje (no. 120) as seen in **Figure 1**. Although this is the case, works on this EPL will focus on Farm Trekkopje.

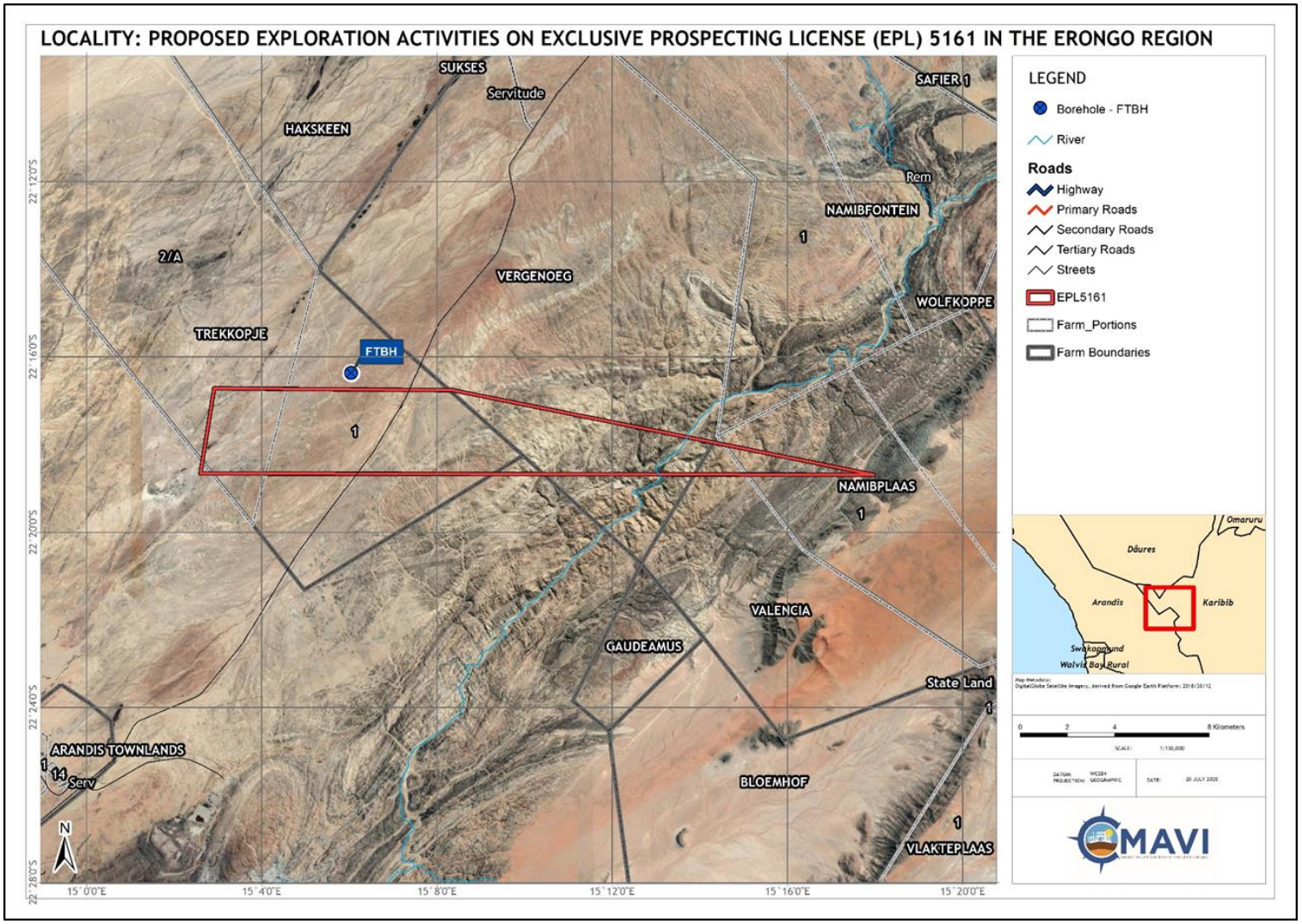

Figure 1 Locality map of the project site EPL 5161 near Arandis in Erongo Region.

1.1 Proposed exploration work

As part of exploration, Best Cheer Investment (Pty) Ltd intends to adopt a systematic prospecting approach starting with desktop study, field evaluation and mapping, and ultimately, drilling and possibly test quarrying in selected areas where the outcomes of field evaluation are positive.

1.1.1 Desktop studies

The exploration program will commence with a review of geological maps and historical drilling and/ or quarrying data for the area.

1.1.2 Field evaluation

To be carried out by a competent and qualified geologist, aimed at locating suitable outcrops in the field and subsequently delineating potential granite intrusions. Granite bodies identified will be ranked in order of priority for follow up exploration based on various factors such as:

- Size (both lateral & vertical thickness) of the granite intrusion
- Colour, texture, pattern, and frequency/ intensity of the granite intrusion rock mass
- Discontinuity mapping to get joint and vein spacing can be evaluated

Small hand samples (about 30 cm^3 in dimension) will be taken for cutting and polishing to provide insight on hardness of the stone and whether the stone can be polished to an acceptable finish. As a product, a geological map of the area will be produced to assist in target generation for subsequent detailed exploration such as drilling and possibly test quarrying.

1.1.3 Detailed exploration

Vertical and inclined core drilling with a DTH (down the hole) drill rig will be carried out in selected areas to provide information on the vertical extent of the formation, colour and texture as well as joint spacing or possible defects at depth. Where cleaning of the rock units is required, a bulldozer will be used to scrap off overburden, after which an air compressor will be used to further expose the rocks for mapping. This will aid delineation of major geological structures such as fault and shear zones, the extent of veins, frequencies of fracture/ discontinuity, thereby refining the produced geological map. The refined map will then be used to define targets for feasibility or test quarrying.

1.1.4 Feasibility study

Where drilling yields positive results, test quarrying by means of butterfly cutting will be conducted to fully evaluate the recovery of saleable blocks, and better optimize the extraction methods, production rates and operational costs. This will be carried out in select targeted areas only and shall be performed on as small an area as possible to

minimize environmental impacts. Project feasibility will also be measured in terms of accessibility from site of occurrence to nearby relevant infrastructure such as roads, railway, etc. **Figure 2** summarizes the technologies and equipment to be used. Although the pictures are showing the use of such technologies in mining, for this study they will be used for exploration purposes.

	
Overburden Removal	**Down-the-Hole drilling**

Figure 2: An example of some of the techniques to employed in this exploration project.

Areas found to comprise good quality rocks in economic volumes will then be delineated for possible mining, subject to the granting of a valid mining license from the Ministry of Mines and Energy (MME).

1.2 Project requirements and Associated infrastructure

1.2.1 Power Requirements

It is anticipated that onsite machinery will be diesel powered. It will mainly be used in powering the compressors for surface cleaning, drilling and cutting machinery. The amount of diesel to be used has not been determined, however it will be delivered to site as required and stored in a trailer mounted bowser. This eradicates the need to connect to the national power grid.

1.2.2 Water supply

About 2000 litres of water will be required for operations per day. Therefore, to avoid putting pressure on surface and groundwater resources in the area, water for exploration activities will be sourced either from Karibib or from the proponent's warehouse water supply line in Swakopmund. The water will then be transported to site by truck and kept onsite in water tankers. It will primarily be used to cool and lubricate cutting and drilling machinery and will be recycled to make maximum use of available water.

1.2.3 Roads

The project will utilise existing farm roads and where necessary, temporary informal access routes will be created to gain access to the actual targeted sites for the drilling rig, air compressor and water trucks.

1.2.4 Waste production and sanitation

Movable ablution facilities with septic tanks will be put up for sanitation purposes for the exploration team. General solid waste will be collected and sent to the Arandis Landfill.

1.2.5 Temporary shelter / accommodation

A temporary camp will be set up to accommodate the exploration team. It will primarily be an erection of tents and other temporary structures such as pre-fabricated structures that will be used as office and storage space. All this will take place subject to approval by the farm owners.

1.2.6 Personnel and site safety

A total of about seven (7) people will be employed during exploration and all workers will be equipped with adequate and appropriate personal protective equipment (PPE), that will be replaced or repaired to ensure workers' occupational health and safety. For safety and security reasons, the localized high-risk working sites will be temporarily fenced off. Exploration vehicles will also be equipped with fire extinguisher as well as at the drilling site in cases of fire outbreaks while carrying out exploration activities.

1.3 Appointed Environmental Assessment Practitioner

Best Cheer Investments Namibia (Pty) Ltd appointed OMAVI Geotechnical & Geo-environmental Consultants CC (*OMAVI hereafter*) as an independent environmental consultant, to investigate the potential biophysical and socio-economic environmental impacts that would arise from the planned exploration activities. The findings of the scoping assessment are aimed at assisting the Ministry of Environment, Forestry and Tourism's (MEFT) Department of Environmental Affairs and Forestry (DEAF) with sufficient factual information to make an informed decision on the granting of an ECC for the proposed activities. Linda Uulenga an Environmental Assessment Practitioner for OMAVI conducted this EA process and prepared this Environmental Management Plan (EMP).

1.4 The Environmental Scoping Assessment Process

The scoping study documented herein investigated the significant potential positive and negative impacts of the proposed exploration activities on the biophysical and socio-economic environment that would be affected by the proposed activities; taking into account all phases of the project from temporary site establishment

through actual exploration to decommissioning of the exploration camps. In addition, the scoping process served to provide Interested and Affected Parties (I&APs) with an opportunity to comment and participate in the impact assessment and mitigation process. The scoping assessment conducted was only for exploration phase. However, should a promising resource be found, an application will be launched with the Ministry of Mines and Energy (MME) for a mining licence, which will be accompanied by a separate environmental impact assessment for mining. The scoping assessment process followed is summarized in **Figure 3.**

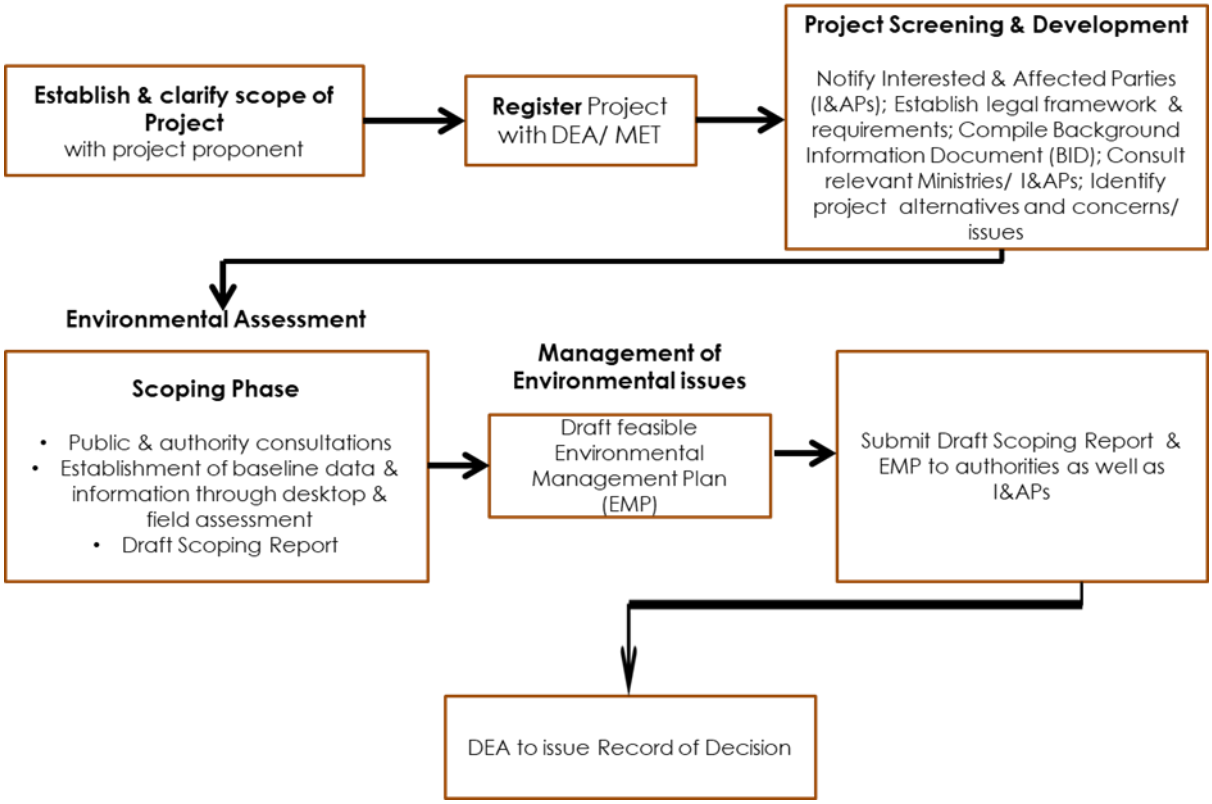

Figure 3: Schematic process flow of Namibia's Environmental Assessment Procedure

Regulation 8 of the Environmental Management Act's (EMA) (7 of 2007) Environmental Impact Assessment Regulations (2012) requires that a draft Environmental Management Plan (EMP) be included as part of the scoping Environmental Assessment (EA) process. Therefore, the present document has been prepared to meet this condition.

2 MANAGEMENT MEASURES

2.1 Purpose of EMP

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 provides a link between the impacts identified in the EIA process and synthesizes all the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. Therefore, it can be said that the purpose of an EMP includes:

- To prevent, reduce and manage potential negative impacts.
- To enhance potential positive impacts.
- To ensure implementation of recommended mitigation measures; and
- To monitor how effective the mitigation measure proposed are.

This EMP has been compiled based on the scoping assessment and specialist groundwater study conducted for the area. The project specific information used in this document is as provided by the Proponent, from site observations, OMAVI Consultants experience and relevant literature. OMAVI therefore assumes that all the project technical information and data provided by the Proponent is correct and accurate, and that all necessary information has been disclosed which led to the development of this EMP.

It is important to note that an EMP is a legally binding 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 should be amended to address project changes and/or environmental conditions and feedback from compliance monitoring.

2.2 Roles and responsibilities

The proponent (Best Cheer Investments Namibia (Pty) Ltd) and its employees are ultimately responsible for the implementation of the EMP. The responsibilities for the effective implementation of this EMP will be entrusted with two key personnel:

- Exploration Manager.
- Environmental Control Officer

2.2.1 Exploration Manager

The Proponent should appoint an Exploration Manager to act on their behalf in overseeing the general / day to day flow of exploration works, which includes implementation of environmental measures. Overall responsibility for all activities that take place at the exploration sites will reside with this manager. In this regard the following roles and responsibilities are applicable:

- Management and monitoring of individuals and/or equipment onsite in terms of compliance with this EMP.
- Maintaining stakeholder engagement and grievance mechanisms.

- The implementation of and compliance with the environmental management measures proposed in this document.
- Ensuring that the monitoring, auditing, and reporting programmes are scoped and included in the annual budgets; and
- Ensuring compliance with relevant environmental and related authorisations and licensing conditions.
- Issuing fines to individuals who contravene EMP provisions and if necessary, removing such individuals from site.

2.2.2 Environmental Control Officer

The Proponent should assign the responsibility of overseeing the implementation of the whole EMP on the ground, especially from Field Evaluation stage. The responsibilities of the Environmental Control Officer will include among others:

- Management and facilitation of communication between the Proponent, Exploration Manager and Interested and Affected Parties (I&APs) regarding this EMP.
- Conducting site inspections (to be done on a monthly basis at minimum) and preparing quarterly environmental reports of all areas with respect to the implementation of this EMP
- Give training to the general staff on the implementation of the EMP.
- Ensuring all incidents are recorded and documented.
- Manage monitoring and auditing programmes for the site and prepare quarterly monitoring reports for submission with MEFT.
- Undertaking an annual review of the EMP and recommending additions and/or changes to this document.

2.3 Key impacts identified and management objectives

Based on the outcomes of the scoping assessment, potential impacts associated with the proposed exploration activities are as follows:

- Impact on soils
- Impact on surface and groundwater resources
- Impact on the surrounding fauna and flora
- Impact on surrounding air quality
- Impact on the socio-economic environment

Table 1: A summary of identified impacts and their environmental objectives

Environmental Aspect	Management Objective

Environmental Aspect	Management Objective
Soil (contamination)	• To minimise soil degradation through contamination.
Soil disturbance	• To conserve the soil resources on site • To minimise physical disturbance of the soil
Biodiversity (flora)	• To limit the impact of exploration and associated infrastructure on the vegetation in the area • Protect the rare and endangered plant species on site.
Biodiversity (fauna)	• To minimise habitat destruction resulting from exploration and associated infrastructure • Protect the rare and endangered animal species on site
Surface water (Contamination of surface water run-off)	• To prevent the contamination of the Khan River and its tributaries close to site.
Groundwater (Impact on groundwater quality and levels due to potential over-abstraction)	• To ensure that the exploration activities do not put pressure on groundwater availability for the local groundwater users. • To prevent lowering of groundwater levels due to over-abstraction. • To prevent contamination of groundwater • To make careful use of available water by recycling it.
Air Quality (dust and gases)	• To minimize the impact of exploration activities on the surrounding air quality. • To minimize the cumulative impact of dust generation by exploration activities on the overall air quality of the region. • To reduce the potential of dust deposition to the surrounding as it could potentially affect the functionality of the ecosystem.
Noise (Increased noise levels during the later stages of exploration)	• To minimise the impact of noise on workers, animals as well as the residents
Visual Aspects (Impact on Sense of Place)	• To reduce the visual impact caused by the test mining on the surrounding area.
Storage and handling of diesel, lubricants / oils	• Ensure that no contamination results from the stored diesel on site. • To ensure that all safety and environmental measures are in place during the storage and usage of hydrocarbon products on site.

Environmental Aspect	Management Objective
Health and Safety	• To ensure that the health and safety of the workers are not compromised. • To ensure that the mine has enough safety warnings at all risk potential areas • Ensure that there is/are site workers that are responsible for the implementation of safety measures on site at all times. • To ensure that firefighting equipment (such as fire extinguishers) are always ready for use in case of a fire.
Waste Management	• To minimize environmental degradation (pollution) • To ensure that there is enough waste management equipment on site to avoid environmental pollution.
Regional Socio-economic structure (Social investment activities, job creation, number of households benefiting directly and indirectly)	• To ensure that preference for employment is given to the locals. • General contribution to the local and regional economy

2.4 Applicable Legislation: Authorisation (Permits and Licenses)

This section covers information on the legal obligations (legislations, policies, and guidelines) that governs certain project activities, where permitting and/or licensing may be required from different applicable regulatory authorities

Table 2: Applicable legislations in terms of permits or licenses for the proposed exploration and mining activities

Legislation	Provisions	Contact Details
Environmental Management Act 2007 Environmental Impact Assessment (EIA) Regulations (EIAR) (GG No. 4878)	Activities listed in Government Notice (GN) No. 29 of GG No. 4878 require an Environmental Clearance Certificate (ECC). The amendment, transfer, or renewal of the ECC (EMA S39-42; EIAR Regs19 & 20). Amendments to this EMP will require an amendment of the ECC. **The ECC needs to be renewed every 3 years.**	**Mr Damian Nchindo (Ministry of Environment, Forestry and Tourism's Department of Environmental Affairs and Forestry (DEAF) – Chief Conservation Scientist)** **Tel: (061) 284 2701**
The Water Act 54 of 1956	The Water Act 54 of 1956 was formulated to consolidate and amend the laws relating to the control,	**Mr Franciskus Witbooi (Deputy Director: Water Policy and Water Law**

Legislation	Provisions	Contact Details
The Water Resources Management Act No. 11 of 2013 (unpromulgated)	conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respects, of the use of sea water for certain purposes; for the control of certain activities on or in water in certain areas. Provision for a Groundwater abstraction and use permit for commercial use to be applied for and obtained from the Department of Water Affairs (DWA): Directorate of Water Resources Management. When issued, Proponent, the permit should be renewed as required (as stipulated in therein).	**Administration.** **Tel: (061) 208 7158**
Mineral Prospecting & Mining Act (Act No. 33 of 1992)	Section 38 (1): Applications for renewal of registration of mining claims The Proponent should ensure that all the necessary permits/authorisation for small/ medium-scale mining such as mining claim renewals are obtained from the Ministry of Mines & Energy (MME)'s Mine Directorate. Section 54(2): details provisions pertaining to the decommissioning or abandonment of a mine	**Mr Erasmus Shivolo (Mining Commissioner)** **Tel: 061 284 8167**
	Under this Act (Section 51 (1a)), holder of a mineral license cannot exercise any rights on a private land until the holder has entered into an agreement with the owner regarding payment of compensation	**The Proponent should enter into and sign access and land use agreement with respective affected farm owners as listed in the Stakeholders' (Interested and Affected Parties) list.**
Road Traffic and Transport Act 52 of 1999 and its 2001 Regulations	Provides for the control of traffic on public roads and the regulations pertaining to road transport, including the licensing of vehicles and drivers.	**Mr Eugene de Paauw (Roads Authority – Specialist Road Legislation)** **Tel.: (061) 284 7027**
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that "No person shall possess or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area"	**Carlo Mcleod (Ministry of Mines and Energy: Acting Director – Petroleum Affairs** **Tel.: (061) 284 8291**

Legislation	Provisions	Contact Details
Forestry Act (No. 12 of 2001)	Permits are required for the removal of protected plants species.	**The nearest Forestry Office (Ministry of Agriculture Water and Land Reform)** **Mr Joseph Hailwa (Director: Forestry), Tel: (061) 208 7663**
Nature Conservation Ordinance No. 4 of 1975 (as amended)	Permits are required for the removal of protected plants species.	
National Heritage Act (Act No. 27 of 2004)	The Act makes provision for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. Part V Section 46 of the Act prohibits removal, damage, alteration or excavation of heritage sites or remains, while Section 48 sets out the procedure for application and granting of permits such as might be required in the event of damage to a protected site occurring as an inevitable result of development. Part VI Section 55 Paragraphs 3 and 4 require that any person who discovers an archaeological site should notify the National Heritage Council. Section 51 (3) sets out the requirements for impact assessment. Should any objects of heritage significance be identified during the exploration or mining phase, the work must cease immediately in the affected sites and **the necessary steps taken to seek authorisation from the Council**.	**Dr Alma Nankela (Chief Archaeologist & Rock Art Specialist) – National Heritage Council of Namibia** **Tel:(061) 301 903**
Labour Act 11 of 2007Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.	**No permit is required, but adherence to the Act's Relevant Regulations is highly recommended.**

3 MANAGEMENT PLAN ACTIONS

3.1 Impact Mitigation

The aim of the management actions of the EMP is to avoid potential impacts where possible. Where impacts cannot be avoided, measures are provided to reduce the significance of these impacts. Management actions recommended to manage the potential impacts rated in the environmental scoping report should be carried out for the proposed exploration works as presented in the following tables. The management actions were compiled based on the four project phases.

The responsible persons at Best Cheer must therefore assess these commitments in detail and should acknowledge their commitment to the specific management actions detailed in the table of the next subchapters.

Table 3: A summary of identified impacts and their management actions and responsible parties

Environmental Aspect	Impact	Management Actions	Responsibility
Authorizations	Lack of Agreements, Permits/ Licenses	• All the necessary agreements should be signed before commencement of work on the EPL • All the required licenses or permits should be applied for and aquired before commencement of work on the EPL	Proponent
Environmental systems	Legal non-compliance	• The Proponent should appoint an Environmental Control Officer to be responsible for managing the EMP implementation and monitoring. • Device an EMP non-compliance penalty system. • Management and facilitation of communication between the project team and Interested and Affected Parties (I&APs) regarding this EMP, to increase transparency and public perception.	Proponent / EM
		• A Comprehensive Health and Safety Plan for the project activities should be compiled. • Undertaking an annual review of the EMP and recommending additions and/or changes to this document	Environmental Control Officer (ECO)
Employment	Creation of employment opportunities	• Recruitment of exploration staff should prioritize people from the locally affected area, in accordance with procedures approved by the relevant authorities.	Proponent / EM

Environmental Aspect	Impact	Management Actions	Responsibility
		• Equal opportunity should be provided for both men and women.	
Biodiversity	Loss of biodiversity (flora)	• Draw up a flora inventory, including their sensitivity and status of endemism • Ensure preservation of endemic plant species • Advise on marking out where to put access roads to ensure preservation of plants as much as possible • Plants must be carefully removed and transplanted • Ensure stockpiling the topsoil to have a seedbank for reclamation works • Ensure harvesting of seeds for replanting during reclamation • Enforce strict driving on the created roads and impose fines for off-road driving that could potentially destroy plant life • Work together with the National Botanical Gardens (NBG) in plant rescue and relocation.	ECO
	Loss of biodiversity	• Draw up a fauna inventory, including their sensitivity and status of	ECO

Environmental Aspect	Impact	Management Actions	Responsibility
	(fauna)	endemism • Ensure that existing roads are utilised as much as possible to avoid creating new ones where possible. • Discourage indiscriminate killing of perceived dangerous species (e.g. snakes and scorpions) • Remove and relocate perceived dangerous species (e.g. snakes) to similar undisturbed habitats in the general area. • Ensure that worked out areas are demarcated and fenced off to keep animals out until they can be rehabilitated	
		• Ensure that speed limit of 60km/h for light vehicles and 30km/h for heavy is maintained onsite to prevent fatalities of fauna that may manifest from collisions with vehicles and earth moving equipment • Implement a severe penalty system for any worker who will be found hunting wild animals in the area.	EM
Chemical risk by hydrocarbons	Pollution of soils	• Warrant that enough drip trays are available on-site and are used at all times when vehicles, trucks are idle as well as under the diesel trailer to contain any potential spillages.	Proponent / EM
		• Ensure that drip trays are always used when vehicles, trucks are idle as well as under the diesel trailer to contain any potential	ECO

Environmental Aspect	Impact	Management Actions	Responsibility
		spillages. • Put in place contamination control measures to manage soil pollution. • Ensure that contaminated soils that may have resulted from leakage/spillage from vehicles or machinery are removed completely and treated or disposed of in accordance with the nearest municipal wastewater discharge standards and the contaminated soils must be thereafter replaced with clean soil. • The trailer with a diesel tank must have designated parking on site, which must be lined ground to prevent pollutants from reaching the soil. • Do daily inspections and monitor soil contamination on site on a weekly basis.	
	Pollution of water	• Warrant that enough drip trays are available on-site and are used at all times when vehicles, trucks are idle as well as under the diesel trailer to contain any potential spillages.	Proponent / EM

Environmental Aspect	Impact	Management Actions	Responsibility
		• Ensure that contaminated soils that may have resulted from leakage/spillage from vehicles or machinery are removed completely to prevent pollutants from leaching into the ground to contaminate groundwater • The trailer with a diesel tank must have designated parking on site, which must have an impermeable liner to prevent pollutants from leaching into the ground and potentially contaminating groundwater. • Personnel must use the toilet facilities provided onsite to prevent potential faecal contamination of water resources.	ECO
Physical disturbance	Soil disturbance and loss of habitat	• Only one campsite should be used to avoid erecting temporary infrastructure in different places and causing further disturbance to the environment. • Enforce strict driving on the existing and created access roads and impose fines for off-road driving that could potentially destroy plant life. • Location of campsite must be selected with ultimate consideration of the environment, while making it convenient for exploration staff.	ECO & EM

Environmental Aspect	Impact	Management Actions	Responsibility
		• Rehabilitation of openings create by removal of blocks, should the project not be feasible such that there is no need to apply for a mining licence. • Stockpile the topsoil to have a seedbank for reclamation works to restore the environment to as close to its original state as possible	
Air Quality (Dust and Gases)	Air pollution	• Must ensure that all vehicles are properly serviced so that they do not give off harmful gases • A speed limit of 60km/h for light vehicles and 30km/h for heavy vehicles must be maintained onsite to minimise the dust generated by vehicles. • Implement a penalty system for speeding onsite.	Proponent & EM

Environmental Aspect	Impact	Management Actions	Responsibility
		• Ensure that dust generation is kept at an acceptable level, by using existing roads and avoiding driving where possible. • Water must be used during drilling to suppress the dust generated. • Ensure that dust collectors or buckets are used to capture some of the dust generated by cutting and drilling • Exploration vehicles and trucks must not be left idling on site when not in use, to minimize gas emissions. • Drill equipment should be regularly maintained to ensure drilling efficiency and so reduce dust generation. • Device a dust monitoring programme and compile inhouse monthly air quality reports and quarterly ones for submission to MEFT	ECO & EM
Noise	Impact of noise on the environment, the workers, and the surrounding community	• Noisy equipment such as drill rigs should be shut down when they are not in use (when not needed) to avoid unnecessary noise on site. • Ensure that workers performing noisy tasks equipped with personal protective equipment (PPE) such as earplugs to reduce noise exposure	ECO & EM

Environmental Aspect	Impact	Management Actions	Responsibility
		• Employ a regular rotation of workers (work on shifts) to avoid exposing them to excessive noise for a long period of time in a day. • Vehicles and machinery must be well serviced and lubricated to reduce noise • To limit the noise from vehicles, drilling and cutting equipment as well as the movement of vehicles, test mining works should be limited to or only be done between 08h00 and 17h00.	
Visual Aspects	Visual impact (Impact on Sense of Place)	• Rock shading to temporarily reduce visual impact before rehabilitation • Ensure that should the project not be feasible, such that work is discontinued, the blocks extracted for testing must be returned to site for backfilling of openings and for use in the rehabilitation process.	ECO & EM
Traffic	Vehicular traffic safety	• Trucks delivering water to the exploration site must have a scheduled time for travelling to and from site so that they do not interfere with daily traffic in the area • Abnormal vehicles carrying drilling equipment or granite blocks must be well equipped with visible signages to caution other	Proponent

Environmental Aspect	Impact	Management Actions	Responsibility
		drivers. • All drivers of the project vehicles should be in possession of valid and appropriate driver's licenses to operate such vehicles. • Project vehicles should be in a road worthy condition and serviced regularly to avoid accidents because of mechanical faults of vehicles	
Health and Safety of workers	Impact on Health and Safety of workers	• Workers must be equipped with personal protective equipment PPE such as coveralls, gloves, safety boots, safety glasses and hard hats always on work sites. • Arrange for trainings so that the workers are provided with sufficient training on how to handle different machinery and equipment. • Ensure that workers only operate within their designated areas and only operate machinery they have been trained to use • No workers should be allowed to drink alcohol during working hours. • No workers should be allowed on site if under the influence of alcohol.	ECO

Environmental Aspect	Impact	Management Actions	Responsibility
		• General vehicles should have designated parking, well away from the rigs so that it is safe • Employees should be sourced locally, to avoid transmission of infectious diseases. • An emergency preparedness plan should be compiled, and all personnel appropriately trained. • Equip site with firefighting equipment (such as fire extinguishers) so that they are readily available for use in case of a fire. • Worked out areas must be demarcated and fenced off to keep people out until they can be rehabilitated • All employees must be aware of the assembly point in case of emergency. • Fires and cooking places must be well away from the diesel storage trailers.	
Socio-economic aspects		• Proponent must prioritise the locals for employment to empower local community • Capacity building must involve transfer of more sophisticated skills and not only unskilled labour.	Proponent

Environmental Aspect	Impact	Management Actions	Responsibility
		• Consumable project needs such as PPE, spare parts for machinery and lubricants must be sourced from local businesses	
Archaeology and heritage	Disturbance of archaeological and heritage sites	• Personnel should be informed not to destroy, damage, remove or throw away any unknown objects found/discovered on site during operations, • If any archaeological materials are found, the National Heritage Council's Chance Find Procedures should be followed. Furthermore, the foreman onsite should be notified, and all on-site activities stopped immediately. • ECO must establish good relations with the National Heritage Council and familiarise themselves with procedure of reporting discovered heritage or archaeological sites.	ECO

3.2 ENVIRONMENTAL MONITORING AND PERFORMANCE ASSESSMENT

To aid the prevention and minimize the above-mentioned environmental impacts, site monitoring measures need to be implemented. The monthly exploration budget must also make provision for these measures.

3.2.1 Dust monitoring

A dust monitoring network must be setup, focusing on areas that potentially generate dust. These are for example near access roads as well as in the vicinity of drilling and cutting areas.

- Air quality monitoring equipment must be set up and dust monitoring reports must be produced **monthly** (for use inhouse) and **quarterly** air quality reports for submission to MEFT.

3.2.2 Monitoring for soil pollution

This will primarily entail inspections and look out for dark spots of oils and petrofuels on the premises. It will also address evidence of erosion onsite.

- Surrounding soils must be monitored daily to ensure that no spills on the soils and if any spills are noticed, they must be cleaned up (removed and replaced) to contain the contamination timely.
- The parking area for the trailer housing the fuel tank must be inspected **daily**.

3.2.3 Fauna and flora inventory

Draw up a flora and fauna inventory, including their sensitivity and status of endemism. This will aid identification of sensitive fauna and flora and will inform the handling procedure to ensure their preservation.

3.3 ENVIRONMENTAL AWARENESS PROGRAMME

3.3.1 Induction

Comprehensive induction is a critical component during exploration works. This includes the following:

- Ensuring that all employees are aware of their individual impact on the environment.
- Ensuring that employees are aware of the measures and procedures to be followed should ecologically sensitive, culturally sensitive, or historically sensitive sites be detected.
- Ensure that employees are aware of the measures and procedures to be followed should an environmental impact (such as a hydrocarbon spill, etc.) take place.

3.3.2 On the job training

This refers to ongoing training on aspects pertaining to the project that employees will keep getting on ad-hoc.

3.3.3 Inhouse communication

The ECO together with the site foreman must hold daily caucus with the workers at the beginning of every shift to give them a refresher on safety aspects. This will also allow them to report incidents from the previous shift. Hold HSE meetings that include the environment.

3.4 Environmental emergency preparedness

Environmental emergencies are those that occur over a short term and require an immediate response. Considering this urgency an effective, comprehensive, well-considered and tested Environmental Emergency Preparedness and Response Plan has the potential to save lives, prevent unnecessary damage to the company and other property. Therefore, Best Cheer must device an Environmental Emergency Preparedness and Response Plan and disseminate it to all its employees and contractors. It should include crucial service providers that should be contacted in a case of emergency.

- Fire department.
- Police.
- Emergency health services such as ambulances, paramedic teams.
- Hospitals, both local and further afield, for specialist care.
- Public health authorities.
- Environmental agencies, especially those responsible for air, water, and waste issues.
- Public works and highways departments, port; and
- Public information authorities and media organizations.

4 CONCLUSION

This Environmental Management Plan highlights the management measures that will be implemented to mitigate the environmental impacts of the proposed activities. Additionally, it highlights the need / requirements for the Environmental Emergency Preparedness and Response procedure.

The EMP is a legal document, which commits the applicant to comply with all management measures, monitoring programmes and other plans as presented herein. As part of the EMP, monitoring programmes have been provided to manage and control critical components of the environment.