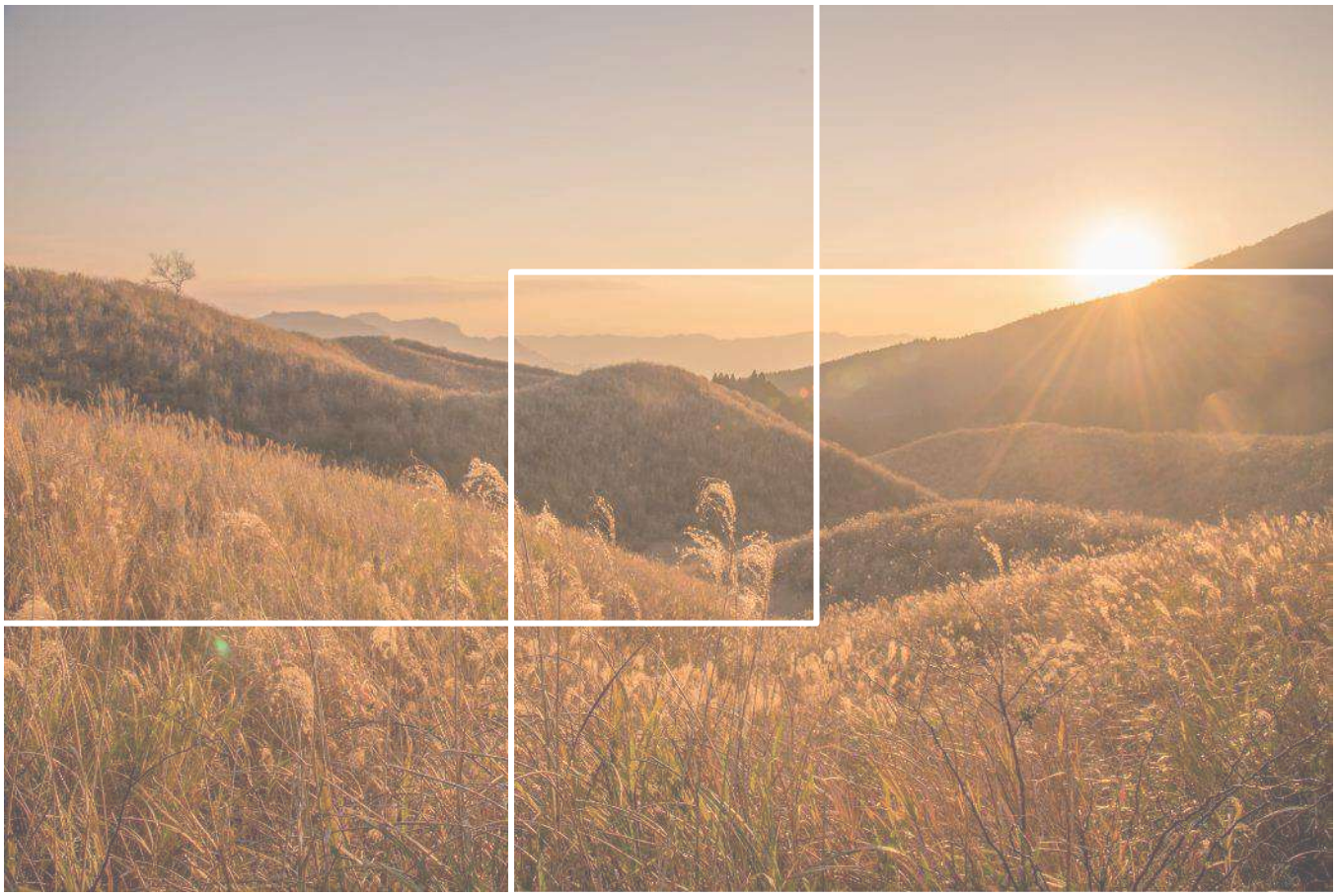

Submitted to Yucca Investments One Hundred and Thirty CC
Attention: Abius Ndadi Akwaake
P O Box 2269
Ausspannplatz
Windhoek

REPORT:

SCOPING REPORT PLUS IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES ON EPL 5680, OTJOZONDJUPA REGION, NAMIBIA

PROJECT NUMBER:	ECC-135-401-REP-06-D
REPORT VERSION:	REV 01
DATE:	8 NOVEMBER 2022

Prepared by:

TITLE AND APPROVAL PAGE

Project Name:	Scoping report plus impact assessment for exploration activities on EPL 5680, Otjozondjupa Region, Namibia
Client Company Name:	Yucca Investments One Hundred and Thirty CC
Client Representatives:	Abius Ndadi Akwaake
Ministry Reference:	221011000061
Authors:	Monique Jarrett, Diaan Hoffman and Jessica Bezuidenhout
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Please note at ECC we care about lessening our footprint on the environment; therefore, we encourage that all documents are printed double sided.

EXECUTIVE SUMMARY

Yucca Investments One Hundred and Thirty CC (Herein referred to as Yucca or the Proponent) intends to carry out exploration activities of rare, base and precious metals and industrial minerals on the Exclusive Prospecting Licence (EPL) 5680.

The proposed Project triggers listed activities in terms of the Environmental Management Act, No. 7 of 2007 and its regulations, No. 30 of 2012. Therefore, an environmental clearance certificate is required. As part of the environmental clearance certificate application, an Environmental Impact Assessment (EIA) has been undertaken to satisfy the requirements of the Environmental Management Act, No. 7 of 2007. This environmental report and environmental management plan (EMP) shall be submitted to the competent authority as part of the application for the environmental clearance certificate.

The proposed activities on EPL 5680 include geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, percussion drilling, reverse circulation (RC), and diamond drilling. Existing tracks shall be used as far as reasonably practicable. If new tracks are required, they will be developed by hand or by use of a bulldozer, terrain dependent. Vegetation clearing will be limited to clearing for access tracks and site camps. Access agreements will be entered into with all farmers or holders of private ground which may be accessed.

The Proponent has obtained a preparedness to grant in 2014 for the EPL from MME and is currently pending renewal on receipt of the ECC.

The impacts of exploration activities related to airborne dust are expected to be limited to vehicular traffic. There will be some release of exhaust fumes from machinery that will impact the immediate vicinity but will be of short duration and limited distance from the source. Additionally, there will be associated drilling and machinery noise, which could be a disturbance to immediate neighbours and possibly wildlife, but this will be of short duration.

Through further investigation, it was determined that the effects from noise are considered to be of minor significance, however with additional mitigation, the significance is reduced to low.

The overall potential impact of this proposed Project is not considered significant as it does not widely exceed recognised levels of acceptable change, does not threaten the integrity of the receptors, and is not material to the decision-making process. The assessment is considered to be comprehensive and sufficient to identify impacts, and it is concluded that no further assessment is required.

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TERMS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
AIDS	Acquired immunodeficiency syndrome
BID	Background Information Document
CIA	Cumulative impacts assessment
CITES	The convention on International Trade of Endangered Species
COVID-19	Coronavirus disease 2019
DEA	Directorate of Environmental Affairs
E	East
EC	Environmental Commissioner
ECC	Environmental Compliance Consultancy
ECC	Environmental Clearance Certificate
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMA	Environmental Management Act, No.7 of 2007
EMP	environmental management plan
ENE	East North-East
EPL	Exclusive Prospecting Licence
ESIA	Environmental and Social Impact Assessment
GDP	gross domestic product
GIS	geographic information system
HIV	human immunodeficiency virus
I&APs	Interested and Affected Parties
IFC	International Finance Corporation
IHME	Institute for Health Metrics and Evaluation
IUCN	International Union for conservation of Nature
MAWLR	Ministry of Agriculture, Water and Land Reform
MME	Ministry of Mines and Energy
MEFT	Ministry of Environment, Forestry and Tourism
NBRI	National Botanical Research Institute
NDP 5	Fifth National Development Plan
NHC	National Heritage Committee
NPC	National Planning Commission
NSA	National Statistics Agency
RAB	Rotary air blast
RH	relative humidity
TB	tuberculosis

1 INTRODUCTION

1.1 COMPANY BACKGROUND

Environmental Compliance Consultancy (ECC) has been retained by Yucca Investments One Hundred and Thirty CC (Hereinafter referred to as 'The Proponent', to undertake an environmental and social impact assessment (ESIA) and prepare an Environmental Management Plan (EMP) in terms of the Environmental Management Act, No 7 of 2007 and its regulations of 2012. An environmental clearance application will be submitted to the relevant competent authorities and the Ministry of Environment, Forestry and Tourism (MEFT) for a record of decision.

The Namibian registered company propose to undertake the exploration of gold on the Exclusive Prospecting Licence (EPL) 5680, located about 37km south of Otavi, (Hereinafter referred to as 'The Project') over the Swakop Group and Waterberg Basin.

The proposed Project area is Shown in Figure 1.

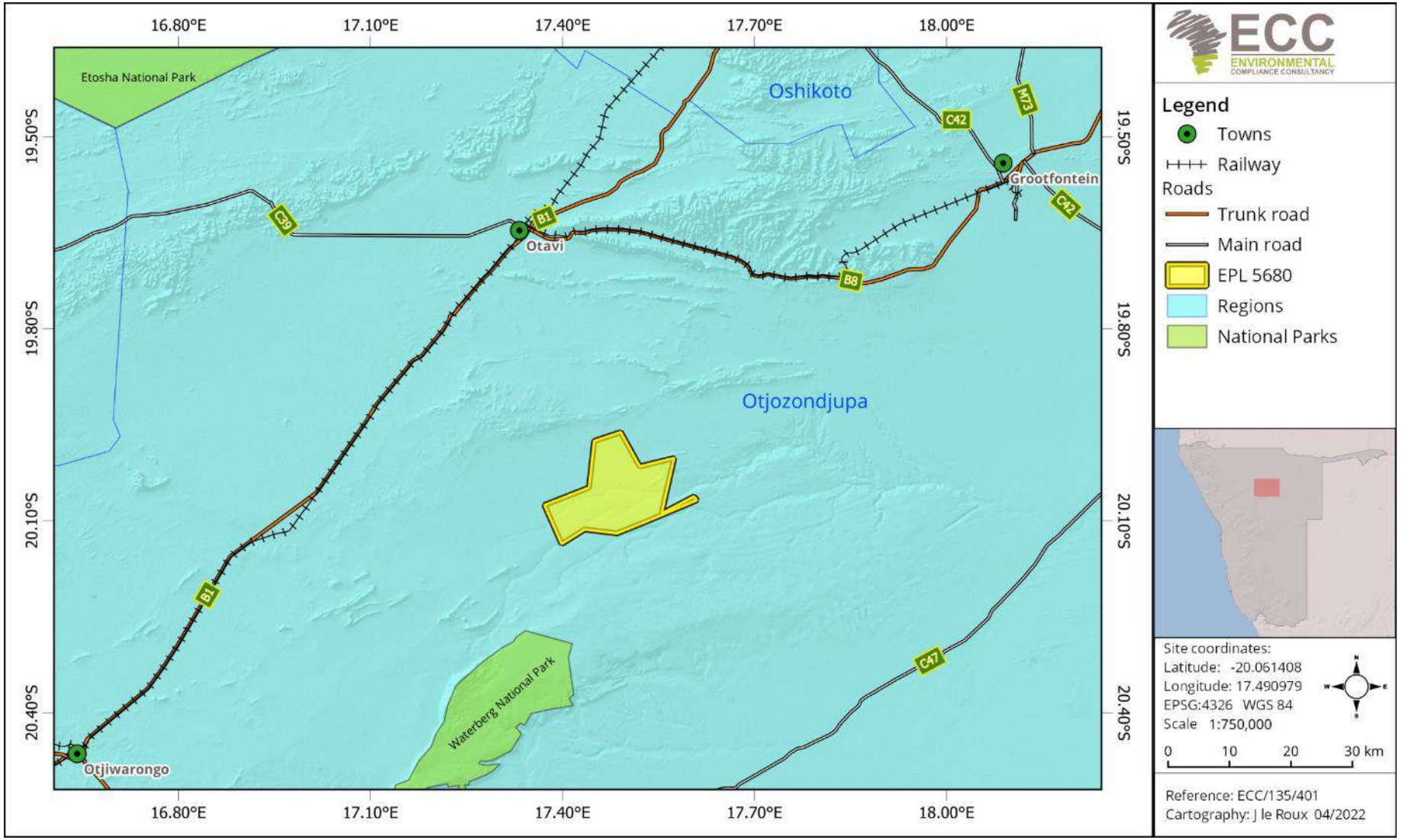


Figure 1 - Locality map of EPL 5680, Otjozondjupa Region

1.2 PURPOSE OF THE SCOPING REPORT

An environmental and social impact assessment (ESIA) has commenced in terms of the requirements of the Environmental Management Act, No.7 of 2007 (EMA 2007) and its regulations of 2012. The purpose of this report is to present the findings of the scoping study phase that forms part of the larger ESIA process.

The scoping report summarises the prescribed ESIA process followed; provides information on the baseline biophysical and socioeconomic environments; project description details; outlines the terms of reference for the assessment phase and presents an environmental management plan (EMP), which is provided.

ECC's terms of reference for the assessment are strictly to address potential effects, whether positive or negative and their relative significance, explore alternatives for technical recommendations and identify appropriate mitigation measures.

This report provides information to the public and stakeholders to aid in the decision-making process for the proposed Project. The objectives are to:

- Provide a description of the proposed activity and the site on which the activity is to be undertaken, and the location of the activity on the site;
- Provide a description of the environment that may be affected by the activity;
- Identify the laws and guidelines that have been considered in the assessment and preparation of this report;
- Provide details of the public consultation process;
- Describe the need and desirability of the activity;
- Provide a high-level environmental and social impact assessment on feasible alternatives that were considered; and
- Report the assessment findings, identifying the significance of effects, including
- cumulative effects, and effective and feasible mitigation measures.

In addition to the environmental assessment, an EMP (Appendix A) is also required in terms of the Environmental Management Act, No. 7 of 2007. An EMP has been developed to provide a management framework for the planning and implementation of exploration activities. The EMP provides exploration standards and arrangements to ensure that the potential environmental and social impacts are mitigated, prevented or minimised as far as reasonably practicable, and that statutory requirements and other legal obligations are fulfilled.

1.3 PROPONENT DETAILS

Table 1 - Proponent's details

Company Representative:	Contact Details:
Technical contact person - Mr Matthew Nakalemo	+264 81 649 5100 P O Box 2269 Ausspannplatz Windhoek mnakalemo@gmail.com

1.4 ENVIRONMENTAL COMPLIANCE CONSULTANCY

ECC, a Namibian consultancy (registration number Close Corporation 2013/11401), has prepared this scoping report and impact assessment on behalf of the Proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across southern Africa, in both the public and private sectors. ECC is independent of the Proponent and has no vested or financial interest in the proposed Project, except for fair remuneration for professional services rendered. All compliance and regulatory requirements regarding this ESIA report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy
PO BOX 91193
Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

1.5 ENVIRONMENTAL LEGAL REQUIREMENTS

The Environmental Management Act, No.7 of 2007 stipulates that an environmental clearance certificate is required to undertake listed activities in terms of the Act and its regulations. Listed activities triggered by the Project in terms of the Environmental Management Act, No. 7 of 2007 and its regulations are as follows:

Table 2 - Listed activities triggered by the project

LISTED ACTIVITY	DESCRIPTION	RELEVANCE TO THE PROJECT
Mining and quarrying activities	(3.1) The construction of facilities for any process or activities which requires a licence, right or other form of authorisation, and the renewal of a licence, right or other form of authorisation, 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.	• The proposed Project has obtained an EPL from MME; now requires environmental clearance from DEA/MEFT to conduct exploration for base, rare and precious metals and industrial minerals. • Exploration activities on EPL 5680 may include geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, percussion drilling, reverse circulation and diamond drilling.
Waste management, treatment, handling, and disposal activities	(2.1) The construction of facilities for waste sites, and the treatment and disposal of waste. (2.3) The importing, processing, use and recycling, temporary storage, transit, or exporting, of waste.	• Waste generated which will be mainly solid waste and general waste during the exploration phase will be removed by a skip and will be disposed of at the nearest landfill site. • Waste will be recycled, to the extent possible. • A portable toilet, long drop hole for a toilet or chemical toilets will be used during exploration activities by the diamond drill crew.

LISTED ACTIVITY	DESCRIPTION	RELEVANCE TO THE PROJECT
Forestry activities	4. The clearance of forest areas, deforestation, afforestation, timber harvesting, or any other related activity that requires authorisation in terms of the Forest Act, 2001 (No. 12 of 2001) or any other law.	• Limited vegetation clearing may be required for tracks and survey access creation, and possibly for the set-up of survey and drilling teams' field camps. Clearing of large trees will be avoided.
Water resource developments	(8.1) The abstraction of ground or surface water for industrial or commercial purposes.	• For the drilling of exploration boreholes, groundwater may need to be abstracted, or water will be sourced offsite.
Hazardous Substance Treatment, Handling and Storage	9.2) Any process or activity which requires a permit, licence or another form of authorisation, or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, licence or authorisation or which requires a new permit, licence or authorisation in terms of a law governing the generation or release of emissions, pollution, effluent or waste.	• Portable toilets, long drop holes for toilets, or chemical toilets will be used during the exploration activities

2 APPROACH TO THE ASSESSMENT

2.1 PURPOSE AND SCOPE OF THE ASSESSMENT

This assessment aims to determine which impacts are likely to be significant; to scope the available data and identify any gaps that need to be filled; to determine the spatial and temporal scope and to identify the assessment methodology.

The scope of the assessment was determined through undertaking a preliminary assessment of the proposed Project against the receiving environment, obtained through a desktop review and available site-specific literature.

2.2 THE ASSESSMENT PROCESS

The ESIA methodology applied to this assessment has been developed using the International Finance Corporation (IFC) standards and models, in particular, Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012), which establishes the importance of:

- Integrated assessment to identify the environmental and social impacts, risks, and opportunities of Projects;
- Effective community engagement through disclosure of Project -related information and consultation with local communities on matters that directly affect them and
- The client's management of environmental and social performance throughout the life of the Project

Furthermore, the Namibian Draft Procedures and Guidance for ESIA and EMP (Republic of Namibia, 2008) as well as the international and national best practice; and over 25 years of combined EIA experience, were also drawn upon in the assessment process. This impact assessment is a formal process in which the potential effects of the Project on the biophysical, social, and economic environments are identified, assessed, and reported so that the significance of potential impacts can be taken into account when considering whether to grant approval, consent or support for the proposed Project.

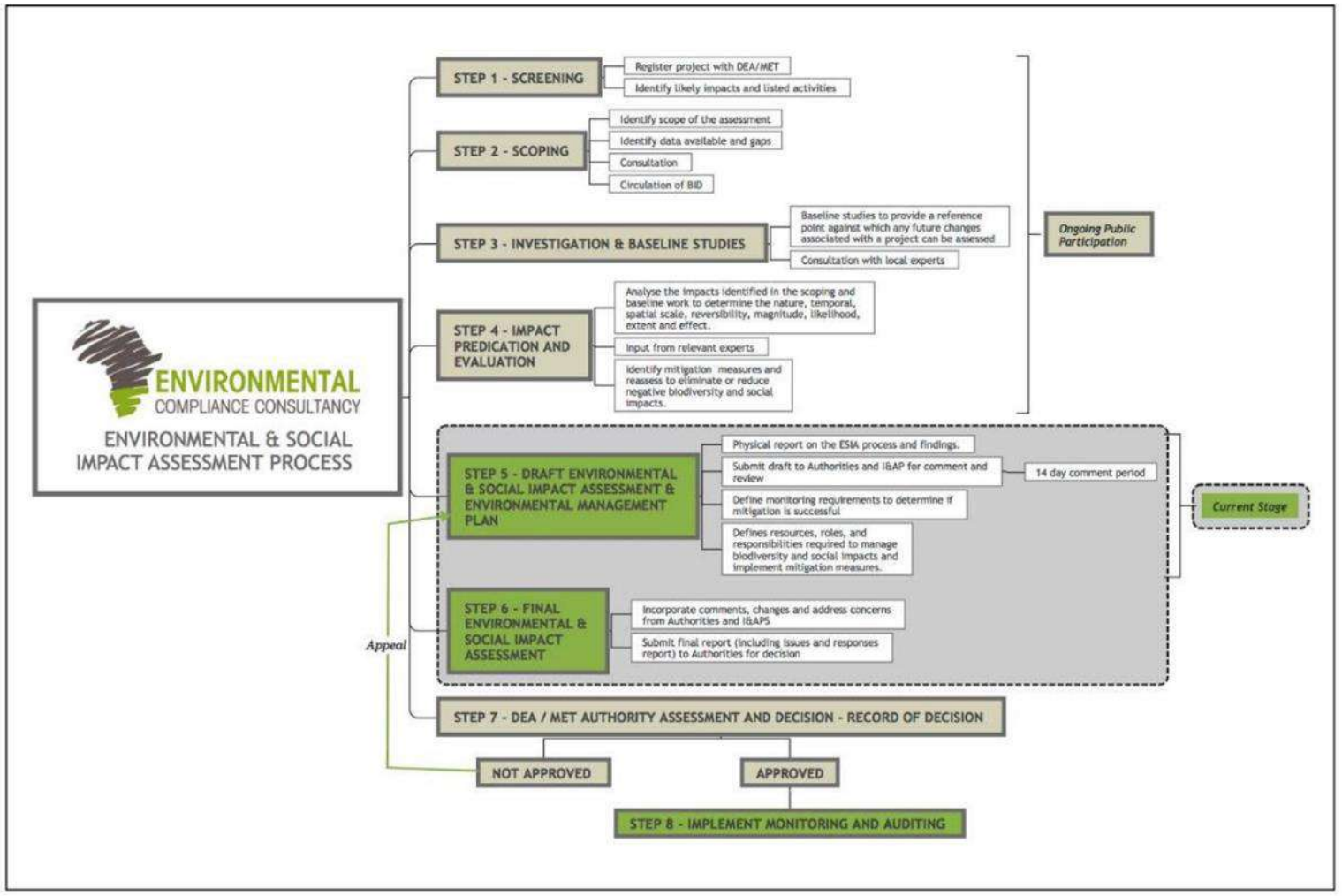


Figure 2 - ESIA Process and stages complete

2.3 SCREENING OF THE PROJECT

The first stages in the ESIA process are to register the Project with the DEA / MEFT (completed) and undertake a screening exercise to determine whether it is considered a listed activity under the Environmental Management Act, No. 7 of 2007 and associated regulations and if significant impacts may arise from the Project. The location, scale, and duration of project activities will be considered against the receiving environment.

It was concluded that an ESIA (e.g. scoping report and EMP) is required, as the proposed Project is considered a listed activity and there may be potential for significant impacts to occur.

2.4 SCOPING AND ENVIRONMENTAL ASSESSMENT

Where an ESIA is required, the second stage is to scope the assessment. The main aims of this stage are to determine which impacts are likely to be significant (the main focus of the assessment); scope the available data and any gaps which need to be filled; determine the spatial and temporal scope and identify the assessment methodology.

The screening phase of the Project is a preliminary analysis to determine ways in which the Project interacts with the biophysical, social, and economic environment. Impacts that are identified as potentially significant during the screening and scoping phases are taken forward for further assessment in the ESIA. The details and outcomes of the screening process are discussed further in sections 6 and 7.

Feedback from consultation with the client and stakeholders is also considered in this process.

The following environmental and social topics and subtopics were scoped into the assessment:

SOCIO-ECONOMIC ENVIRONMENT

- Limited goods and services procurement within the local economy.

BIOPHYSICAL ENVIRONMENT

- Dust emissions
- Soil and geology
- Terrestrial ecology
- Terrestrial biodiversity (including fauna and flora)
- Groundwater

2.5 BASELINE STUDIES

Baseline studies are undertaken as part of the scoping stage, which involves collecting all pertinent information on the current status of the receiving environment. This provides a baseline against which changes that occur as a result of the proposed Project can be measured. For the proposed Project, baseline information was obtained through a desktop study, consultation, and engagement with stakeholders (Appendix C, D and E), focusing on environmental receptors that could be affected by the proposed Project, verified through site-specific information. The baseline information is covered in Section 5.

2.6 PUBLIC CONSULTATION

Public participation and consultation are a requirement as stipulated in the Environmental Impact Assessment Regulations (Regulations 21 and 23) of the EMA, No.7 of 2007, for a project undertaking a listed activity and requires an environmental clearance certificate. Consultation is a compulsory and critical component of the ESIA process for achieving transparent decision-making and can provide many benefits. Consultation is ongoing during the ESIA process. The objectives of the public participation and consultation process are to:

- Provide information on the Project, introducing the overall project concept and planning in the form of a background information document (BID)
- Determine the relevant government, regional and local regulating authorities
- Listen to and understand community issues, record concerns and questions
- Explain the process of the ESIA and timeframes involved and establish a platform for ongoing consultation

2.6.1 IDENTIFICATION OF KEY STAKEHOLDERS AND INTERESTED AND AFFECTED PARTIES

A stakeholder mapping exercise was undertaken to identify individuals or groups of stakeholders and the method in which they will be engaged during the ESIA process.

Stakeholders were approached through direct communication (letters and phone calls), the national press, or directly by email. A summarized list of stakeholders for this project is given below:

- The general public with an interest in the Project;
- Ministry of Environment, Forestry and Tourism (MEFT);
- Ministry of Mines and Energy (MME);
- Neighbouring farms

The records of the public consultation process will provide a list of interested and affected parties (I&AP's), evidence of consultation, including minutes of public meetings (if applicable),

advertisements in national newspapers, and a summary of the comments or questions raised by the public.

2.6.2 BACKGROUND INFORMATION DOCUMENT

The background information document (BID) presents a high-level description of the proposed Project, sets out the ESIA process and when and how consultation is undertaken and provides contact details for further Project-specific inquiries to all registered I&APs. The BID was distributed to registered I&APs and the BID can be found in Appendix B.

2.6.3 NEWSPAPER ADVERTISEMENTS

Notices regarding the proposed Project and associated activities were circulated in three newspapers namely the 'Republikein, Sun, and Allgemeine Zeitung' on 24 August 2022 and 31 August 2022 (see Appendix C). The purpose of this was to commence the consultation process by informing the public about the Project and enabling I&APs to register any comments and interest raised for the Project.

2.6.4 SITE NOTICES

A site notice ensures neighbouring properties and stakeholders are made aware of the proposed Project. The notice was set up at the boundary of the EPL as illustrated in Appendix D.

2.6.5 PUBLIC MEETING

In terms of Section 22 of the Environmental Management Act, No. 7 of 2007 and its regulations, for the purpose of registering I&APs. A public meeting is not a requirement during the public consultation process for the proposed Project.

2.6.6 SUMMARY OF ISSUES RAISED

The I&APs were encouraged to provide constructive input during the consultation periods. The public is further being provided with an opportunity to send any comments on the draft scoping report and the EMP to be included and addressed, where applicable, in the final documentation. The comments received by I&APs are listed in Appendix E, the main concerns that were raised relate to farming activities, trophy hunting, camping and wellness programs on farm Borodino.

2.7 DRAFT EIA AND EMP

This report and EMP for the Project's environmental clearance include an assessment of the biophysical and social environment, which satisfies the requirements of Step 5 shown in Figure 2. The EIA report documents the findings of the assessment process provides stakeholders with the opportunity to comment and continue to engage in consultation and forms part of the environmental clearance application (Public review: 27/10/2022 to 7/11/2022). The EMP provides measures to manage the environmental and social impacts of the proposed Project and outlines specific roles and responsibilities to fulfil the plan.

This EIA report focuses on the significant impacts that may arise from the proposed Project as described in Step 4 (Figure 2). These impacts are discussed in Chapter 7.

2.8 FINAL EIA AND EMP

The final EIA report and associated appendices will be made available to all stakeholders on the ECC website www.eccenvironmental.com and MEFT portal. All I&APs will be informed via email.

The EIA report and appendices are formally submitted to the Office of the Environmental Commissioner, DEA department as part of the application for an environmental clearance certificate.

2.9 AUTHORITY ASSESSMENT AND DECISION MAKING

The Environmental Commissioner in consultation with other relevant authorities will assess if the findings of the EIA presented in the EIA report is acceptable. If deemed acceptable, the Environmental Commissioner will revert back to the Proponent with a record of decision and any recommendations.

2.10 MONITORING AND AUDITING

In addition to the EMP being implemented by the Proponent, a monitoring strategy and audit procedure will be determined by the Proponent and competent authority. This will ensure key environmental receptors are monitored over time to establish any significant changes from the baseline environmental conditions caused by Project activities.

3 REVIEW OF THE LEGAL ENVIRONMENT

As stated in Section 1, an environmental clearance certificate is required for any activity listed in the Government Notice No. 29 of 2012 of the EMA 2007. The Project area is located outside of any protected areas.

A thorough review of relevant legislation has been conducted for the proposed Project. Table 3 below identifies relevant legal requirements specific to the Project. Table 4 provides the national policies and plans.

Table ***5*** specifies permits relevant to the Project. This chapter outlines the regulatory framework applicable to the proposed Project.

3.1 NATIONAL REGULATORY FRAMEWORK

Table 3 - Details of the regulatory framework as it applied to the proposed Project

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Constitution of the Republic of Namibia (1990)	The constitution defines the country's position in relation to sustainable development and environmental management. The constitution refers that the state shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: "Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia, and the utilisation of living, natural resources on a sustainable basis for the benefit of all Namibians, both present, and future."	The proposed project is committed to the sustainable use of the environment and has aligned its corporate mission, vision, and objectives within the ambit of the Constitution of the Republic of Namibia (1990).
Minerals (Prospecting and Mining) Act No. 33 of 1992	The Act provides for the granting of various licences related to mining and exploration. Section 50 (i) requires: "An environmental impact assessment indicating the extent of any pollution of the environment before any prospecting operations or mining operations are being carried out, and an estimate of any pollution, if any, likely to be caused by such prospecting operations or mining operations."	The proposed exploration activity requires an EIA to be carried out, as it triggers listed activities in the Environmental Management Act's regulations. The project shall be compliant with Section 76 of the Act regarding records, maps, plans and financial statements, information, reports, and returns submitted.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	The Act sets out the requirements associated with licence terms and conditions, such that the holder of a mineral licence shall comply with. The Act also contains relevant provisions for pollution control related to mining activities and land access agreements and provides provisions that mineral licence holders are liable for any damage to land, water, plant, or animal life, caused by spilling or pollution, and must take all such steps as may be necessary to remedy such spilling, pollution, loss, or damage, at its own costs.	
Environmental Management Act, 2007 (Act No. 7 of 2007) and its regulations, including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011)	Environmental Management Act, 2007 (Act No. 7 of 2007) and its regulations, including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011) The Act aims to promote sustainable management of the environment and use of natural resources. The Act requires certain activities to obtain an environmental clearance certificate prior to project development. The Act states that an EIA should be undertaken and submitted as part of the environmental clearance certificate application process.	This environmental scoping report documents the findings of the scoping phase of the environmental assessment undertaken for the proponent. The process has been undertaken in line with the requirements under the Act and its regulations.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	The MEFT is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs, under the MEFT, is responsible for the administration of the EIA process.	
Water Act, 1956 (Act No. 54 of 1956)	Although the Water Resources Management Act (No. 11 of 2013), has been billed, but not promulgated, it cannot be enacted, as the regulations have not been passed – therefore the Water Act of 1956 remains the current piece of legislation relating to water management in Namibia. This Act provides for the control, conservation and use of water for domestic, agricultural, urban, and industrial purposes; and to make provision for the control of certain activities on or in water. The Department of Water Affairs, within the Ministry of Agriculture, Water and Land Reform (MAWLR), is responsible for the administration of the Act.	The Act stipulates obligations to prevent the pollution of water. Measures to minimise groundwater pollution are contained in the EMP. The project is obliged to have all permits relevant to its operations under this Act. Abstraction of water from boreholes requires an abstraction permit to be obtained from the Ministry of Agriculture, Water and Land Reform.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Soil Conservation Act, No. 76 of 1969	This Act makes provision for the prevention and control of soil erosion, and for the protection, improvement, and conservation of soil and vegetation.	Planned activities will take place within the boundaries of the exploration prospecting licence. Measures for potential impact due to land clearing will be included in the EMP, this can ensure conservation of soil and vegetation that will be used as part of the rehabilitation phase of the project.
The Forestry Act, No. 12 of 2001 as amended by the Forest Amendment Act, No. 13 of 2005	Section 22 deals with the protection of natural vegetation that is not part of the surveyed erven of a local authority area as defined. Section 21 states that no person shall cut, destroy, or remove vegetation that is growing within 100 metres of a river, stream, or watercourse. Section 23 requires a permit from the Director for the clearance of vegetation on more than 15 hectares on any piece of land or several pieces of land situated in the same locality as that which has predominantly woody vegetation; or cut or remove more than 500 cubic metres of forest produce from any piece of land in a period of one year.	The project activities may require limited land clearing where necessary. The proponent will ensure that all required permits are in place before vegetation removal commences.
National Heritage Act, No. 27 of 2004.	The Act provides provision for the protection and conservation of places and objects with heritage significance.	Since the proposed project area is not yet an operational area, there is potential for heritage-related objects to be found in the exploration prospecting

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	Section 55 compels mining companies to report any archaeological findings to the National Heritage Council. Subsection 9 allows the NHC to issue a consent, subject to any conditions that the Council deems necessary.	licence area. Therefore, the relevant stipulations in the Act will be taken into consideration and incorporated into the EMP. In cases where heritage sites are discovered, the 'chance find procedure' will be used.
Labour Act, No. 11 of 2007	The Labour Act, No. 11 of 2007 (Regulations relating to the Occupational Health & Safety provisions of Employees at Work, promulgated in terms of Section 101 of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997)	The project shall adhere to all labour provisions and guidelines, as enshrined in the Labour Act. The project shall also develop and implement a comprehensive occupational health and safety plan to ensure adequate protection for its personnel throughout the project lifecycle.
Hazardous Substances Ordinance, No. 14 of 1974	This Ordinance provides for the control of toxic substances and can be applied in conjunction with the Atmospheric Pollution Prevention Ordinance, No. 11 of 1976. This applies to the manufacture, sale, use, disposal, and dumping of hazardous substances, as well as their import and export.	The planned project will involve the handling and storage of hazardous substances such as fuels and reagents, The proponent shall ensure safe handling, transfer, storage, and disposal protocols are developed, implemented, and audited throughout its operations. The proponent is obliged to ensure that all permits under this Ordinance are obtained prior to project commencement.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
The Atmospheric Pollution Prevention Ordinance, No. 11 of 1976	The Ordinance pertains to the prevention of air pollution, with particular focus on public health, and contains detailed provisions on air pollution matters, including the control of noxious or offensive gases, atmospheric pollution by smoke, dust control, motor vehicle emissions, and other general provisions.	The nature of exploration activities does generate dust. Activities within the exploration operations will generate gases, odours, and air pollution. The proponent will ensure that all measures reasonably practicable will be implemented to reduce and mitigate impacts to air quality, and this will be included in the EMP.

3.2 NATIONAL POLICIES AND PLANS

Table 4 - National policies and plans applicable to the proposed Project

Policy or plan	Description	Relevance to the r Project
Vision 2030	Vision 2030 sets out the nation's development targets and strategies to achieve its national objectives. Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people aligned with the developed world.	The proposed Project shall aim to meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities and ongoing contributions to the gross domestic product (GDP).
Fifth National Development Plan (NDP5)	The NDP5 is the fifth in a series of seven five-year national development plans that outline the objectives and aspirations of Namibia's long-term vision. The NDP5 pillars are economic progression, social transformation, environmental sustainability, and good governance.	The planned Project supports meeting the objectives of the NDP5 by creating opportunities for continued employment.

Policy or plan	Description	Relevance to the r Project
The Harambee Prosperity Plan II (2021 – 2025)	Second Pillar: Economic advancement – ensuring increasing productivity of priority key sectors (including mining) and the development of additional engines of growth, such as new employment opportunities.	The Project will contribute to the continued advancement of the mining industry and create an additional employment generation engine within the local and regional landscape.
Namibia's Green Plan, 1992	Namibian has developed a 12-point plan for integrated sustainable environmental management to ensure a safe and healthy environment and to maintain a viable economy. Clause 2 (f) makes specific mention to guidelines related to Mining and Sustainable Development.	Guidelines as best practise to be adhered to during operational activities.
Minerals Policy	The Minerals Policy was adopted in 2002 and sets guiding principles and direction for the development of the Namibian mining sector, while communicating the values of the Namibian people. The policy strives to create an enabling environment for local and foreign investments in the mining sector and seeks to maximise the benefits for the Namibian people from the mining sector, while encouraging local participation. The objectives of the Minerals Policy are in line with the objectives of the Fifth National Development Plan (NDP5) that include reduction of poverty, employment creation, and economic empowerment in Namibia.	The planned Project conforms to the Policy, which has been considered through the ESIA process and the production of this report. The Proponent intends to continue to support local spending and procurement. The Project will comply with the general guidelines of the Policy through the adoption of various legal mechanisms to manage all aspects of the environment effectively and sustainably from the start. The ESIA is one such mechanism to ensure environmental integrity throughout the planned Project's lifecycle.

Table 5 - Specific permits and licence requirements for the proposed Project

Permit or licence	Act or Regulation	Related activities requiring a permit	Relevant Authority
Environmental clearance certificate	Environmental Management Act, No 7 of 2007	Required for all listed activities shown in Table 2. Requires issuance of Environmental Clearance Certificate by the Environmental Commissioner.	Ministry of Environment, Forestry and Tourism (MEFT)
Exclusive Prospecting Licence	Section 90 (2) (A) of the Minerals Act, No.33 of 1992	Written permission from the mining commissioner in the form of an Exclusive Prospecting Licence (EPL 5680) has been issued to date.	Ministry of Mines and Energy (MME)
Permit for the clearing of land	The Forest Act, 2001 (Act No. 12 of 2001)	This Act governs the removal of vegetation within 100 m of a water course, or removal of more than 15 ha of woody vegetation, or the removal of any protected plant species.	Ministry of Environment, Forestry and Tourism (MEFT) – Forestry department

4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROJECT

The mining sector in Namibia significantly contributes to the country's Gross Domestic Product (GDP), government tax receipts and export revenues. For this reason, exploration activities are encouraged in Namibia and the vision of the Minerals Policy being to "further attract investment and enable the private sector to take the lead in exploration, mining, mineral beneficiation and marketing" supports mineral exploration and development.

The proposed Project is in line with this vision and has the potential to create employment in local communities in the Otjozondjupa Region. In the event that exploration activities are successful, and a resource can be defined, with commercially viable mineral concentrations, exploration operations can result in socio-economic development in the area.

4.2 ALTERNATIVES CONSIDERED

In terms of the Environmental Management Act, No. 7 of 2007 and its regulations, alternatives considered should be analysed and presented in the scoping assessment and EIA report. This requirement ensures that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified.

Exploration activities range from low-impact exploration such as remote sensing from satellites to more invasive methods such as extensive close-spaced drilling. The methods used shall be determined, based on the exploration programme, which is further designed once more information and data are obtained. At this stage of the Project, the exploration activities are yet to be finalised and therefore a range of options remain. Once the exploration programme is further defined, the most suitable options and methods shall be identified to ensure the impacts on the environment and society are minimized.

4.2.1 NO-GO ALTERNATIVES

Should exploration activities within EPL 5680 not take place, the anticipated environmental impacts from exploration activities would not occur, however, the social and economic benefits associated with the Project would also not materialize.

There would not be an opportunity to define resources within the Project area, which would be a missed opportunity for geological mapping and data collection that typically adds to regional knowledge of Namibia's mineral wealth and, if found to be viable for mining, would benefit the Namibian economy.

4.3 EXPLORATION METHODOLOGY

All geological and geophysical work will be conducted by contractors. Exploration activities will start and schedule developed if the RoD is an approved ECC.

The exploration activities on EPL 5680 will include the following:

- **Geological mapping -** the Proponent will make use of the geological maps provided by the Geological Survey of Namibia (GSN) and future detailed mapping is not ruled out;
- **Geochemical surveys**;
- **Ground and airborne geophysical surveys -** the Propent will make use of the airborne geophysical data provided by the Geological Survey of Namibia (GSN). Surface magnetic surveying over small selected areas could also possibly be used.
- **Geological sampling -** Surface chip samples will be collected;
- **Percussion drilling and Diamond drilling -** Minor (percussion) scout drilling is envisioned to do prelim testing for sub-surface mineralisation. Some diamond drilling may be done to investigate the sub-surface geology, pending the results of the scout drilling; and
- **Reverse circulation -** Should there be suitable positive indications that an economic gold/copper deposit may be found on the EPL, extensive reverse circulation drilling may be done by the Proponent to define the ore body and allow a mineral resource estimation to be done.

Exploration shall be undertaken in programmed segments. Low impact ground truthing and mapping with take place using Garmin 62S GPS and Magnetometer for walkmagnetic surveys.

This will then be followed up by soil, termite mound and rock chip sampling using ashovel, hand trowel, geo-pick and pickaxe.

Numerous Diamond drill holes will be drilled to obtain samples, the samples collected will not be stored on site but will be transported to a nearby storage facility however the number of drill holes may vary depending on the exploration findings.

Existing tracks shall be used as far as reasonably practicable. Vegetation clearing will be limited to clearing for site camps, only invasive bush species will be targeted and cleared lines will be no wider than 6m. Any established or large trees or specially protected plant species shall not be removed. Should additional areas be cleared for exploration activities the Forest Act, No. 12 of 2001 and its regulations will be complied with (the relevant forestry permits will be applied for if required).

4.3.1 EXPLORATION SCHEDULE

The exploration activities are executed and managed from the Proponents Office. Field exploration activities, using techniques discussed above, are anticipated to be carried out over the licence validity period. Planning phases for the prospecting programme will require a couple of months. Low impacts ground truthing and mapping will take about 2 months. This will then be followed up by termite mound and rock chip sampling which will then take a further 8 months.

This will then be followed up by scout and/or Diamond drilling which is most likely to commence in the second year. The duration of drilling programs is variable, and usually depends on the information that is gained from drilling. Applications for the environmental clearance certificate, along with all required permits will be submitted during this period should a renewal of the EPL be required.

4.3.2 EQUIPMENT AND MATERIALS

The following equipment and machinery is expected to be used. The contractor's camp long drop or portable toilets will be set up on-site temporarily if agreed to by the landowner. The diamond drill crew will use a portable toilet if deployed. A drill rig (track-mounted) will be brought to the site for core drilling, along with a water truck and supporting equipment (rods truck, water and fuel bowsers) for use during drilling. Drilling equipment, diesel fuel and consumables shall be brought to the exploration site to support exploration activities when needed.

4.3.3 POWER SUPPLY

The individual contractors will be responsible to supply their own energy needs throughout their stay within the field camps.

4.3.4 WATER SUPPLY

Water will be required for various uses including human consumption during the planned exploration activities and to support any of the exploration activities such as diamond drilling. The water will either be trucked to the site or an agreement might be made with the landowners to use water from existing boreholes.

Water demand per day for the exploration Project is broken down into two usage categories.

These are:
- Water for domestic use within field camps; and
- Water for exploration activities (drilling).

If deemed necessary, water will be supplied directly from farmer’s boreholes with their permission and compensation.

4.3.5 WORKERS AND ACCOMMODATION

Not more than 10 possible job opportunities are foreseen during the exploration phase and workers will be sourced from Otjiwarongo and Windhoek. The workers will be deployed at various stages of exploration including, low impact ground-truthing and mapping, soil, termite mound and rock chip sampling and drilling operations.

It is envisioned that most of the exploration programme workers will reside on farm Onoros camping facility. The Proponent shall provide suitable living facilities during this period.

Should the Proponent consider setting up camps for the exploration team on-site, precaution and safe use of flammable items should be adhered to. Although fire is unlikely and probably rarely caused by the residing exploration team, there is a growing concern from farmers/ landowners regarding the occurrences of an uncontrolled veld fire.

Mitigation measures have been included in the EMP, which shall be ensured and utilized by the Proponent. Accommodation options for exploration personnel on-site should always be done in consultation with the affected landowner and captured within the land access agreement.

4.3.6 WASTE MANAGEMENT

Waste produced on-site will include solid waste such as packaging material and field camps household waste. The Proponent should ensure waste is collected in categorized bins and that the waste hierarchy (reduce, reuse, and recycle) is practiced as practically as possible.

4.3.7 WASTEWATER EFFLUENT

Sewerage may as well, be produced on-site and in the case of provision of the mobile toilets to be used on-site, sewerage generated shall be managed by the toilet contractor.

4.3.8 REHABILITATION

Once exploration activities are completed the areas shall be rehabilitated to a condition as close to the original state as far as reasonably practicable. Rehabilitation shall be determined during the exploration programme and shall be agreed upon with the landowners and authorities as per legislation (discussed in Section 3). Before and after photographs will be used to monitor rehabilitation success.

5 ENVIRONMENT AND SOCIAL BASELINE

A detailed environmental and socio-economic baseline assessment of the Project is provided in this report. Baseline studies aim to assess possible Project impacts (positive, negative and cumulative), thus ensuring input into the Project designs, which avoid, reduce or mitigate the potentially adverse environmental and social risks. This section provides an overview of the existing biophysical environment through the analysis of the available baseline data regarding the receiving environment. Desktop studies, followed by site verification on the national database are undertaken as part of the scoping process to get information about the current status of the receiving environment. This provides a baseline where changes that occur as a result of the proposed Project can be measured.

5.1 BASELINE DATA COLLECTION

Initial desktop baseline studies relevant to the project formed part of the initial environmental assessments conducted for the exclusive prospecting licences on which the project is situated. As part of this assessment, the baseline was studied in detail.

5.2 LAND USE

EPL 5680 is situated to the south of Otavi in the Otjozondjupa region. This region has a mix of agriculture (livestock, irrigation), game farms, tourism activities and mining.

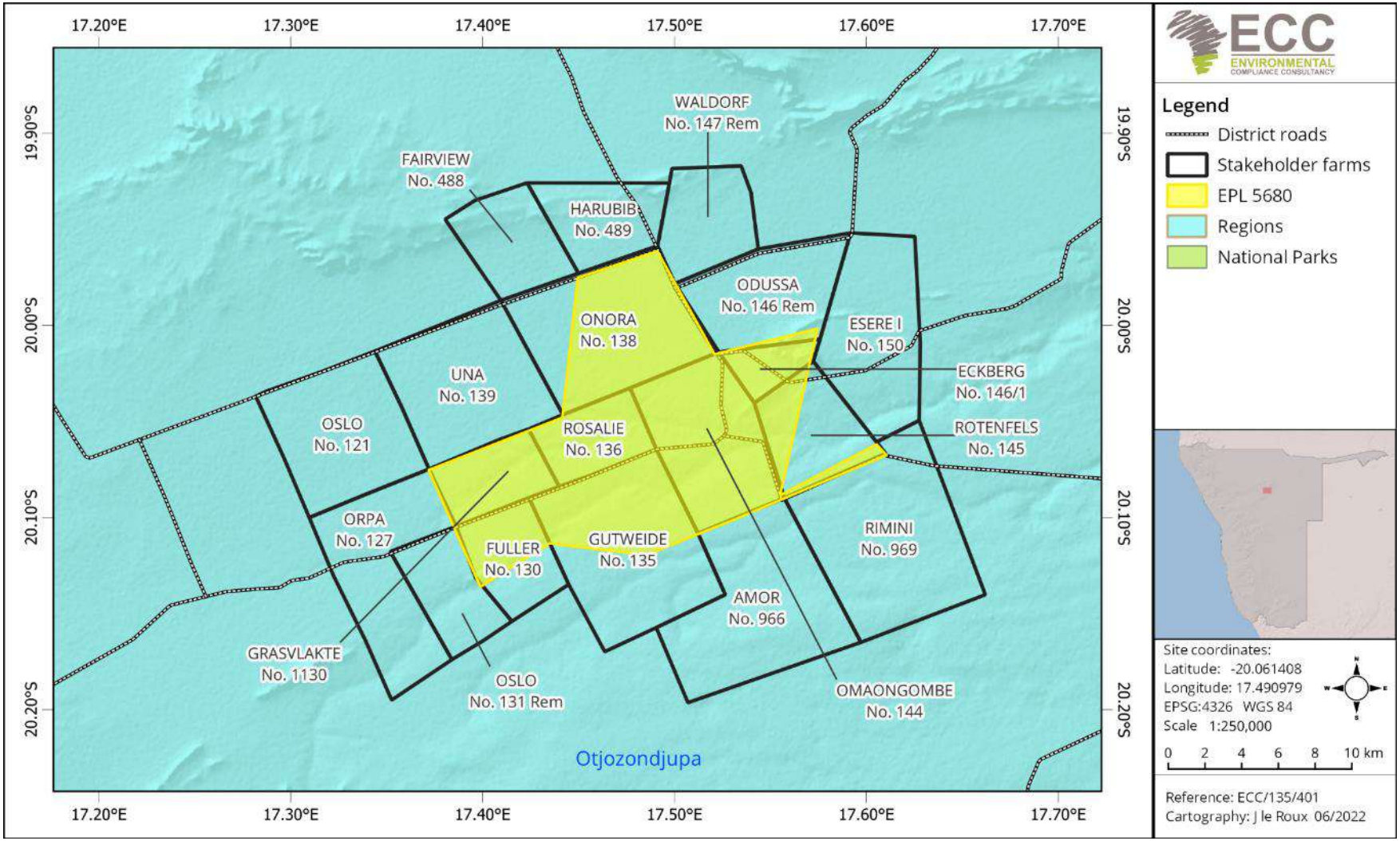


Figure 3 - Stakeholder map of the area

5.3 CLIMATE

EPL 5680 is situated to the south of Otavi in the Otjozondjupa Region, Namibia (Figure 4). The climatic conditions characterising the EPL area are mild summers and cool winters with the mean temperatures between 20˚C and 21˚C, mean maximum temperatures ranging between 23˚C and 33˚C and mean minimum temperatures ranging between 6˚C to 20˚C. The hottest months of the year are between October and December and the coolest months are in June and July (Bubenzer, 2002 & meteoblue, 2022).

The most humid months of the year have a humidity of approximately 70% RH, and the driest months have a humidity of approximately 10% RH. The average rainfall in this area during the year is between 400 to 500 mm and rainfall events are limited to the summer months, mainly between November and March. Potential evaporation is between 2800 and 3000 mm per year (Bubenzer, 2002).

The site has wind speeds between 0 and 28 km/h, where the months of July to October are known to have the strongest winds. Wind can occur any time of the day and the most predominant wind directions for this area are ENE and E (Figure 5) (meteoblue, 2022).

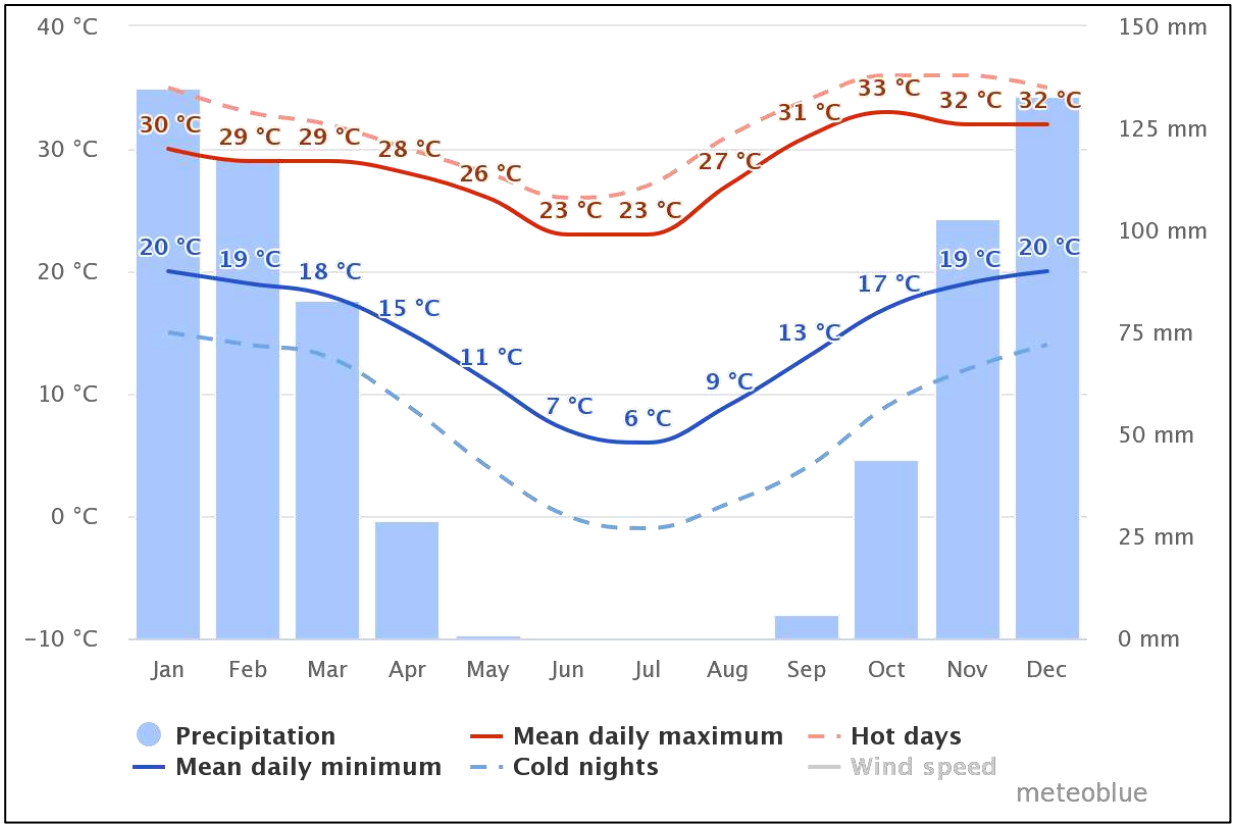


Figure 4 – Average climate data for EPL 5680

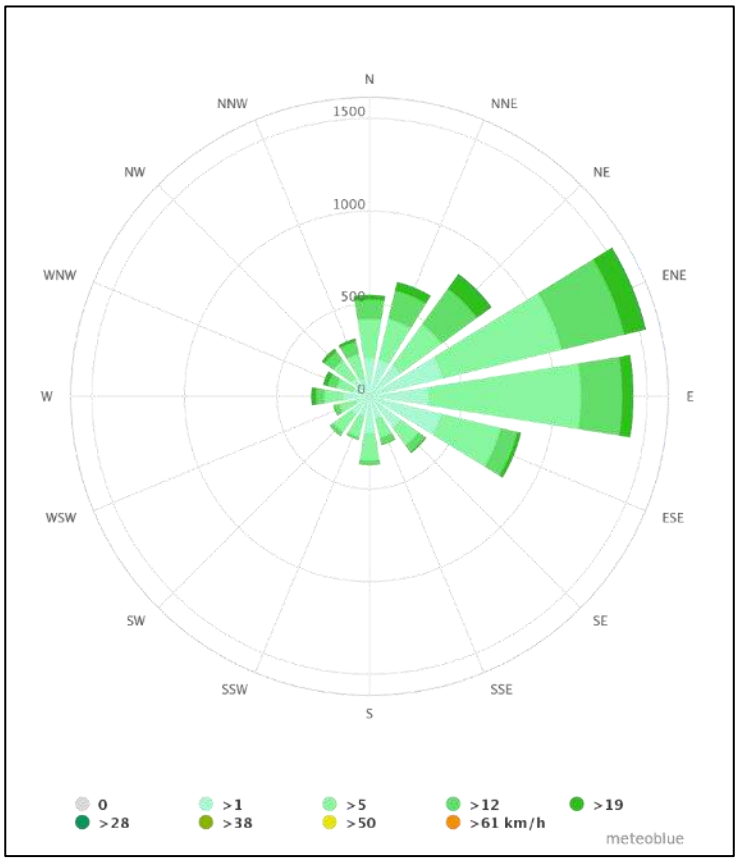


Figure 5 - Average wind speed and direction for EPL 5680

5.4 SOIL, GEOLOGY AND TOPOGRAPHY

Namibia can be divided into two broad geological provinces, one covering the western parts and the other in the east. The western parts consist of a variety of geological formations of different ages and compositions and formed under very diverse environmental conditions – some were formed in the depths of primaeval oceans, others as a result of the movement of the earth's crust or because of collisions or volcanic eruptions. Most of these formations are exposed in the west as rugged landscapes of mountains, hills, valleys and plains with sparse vegetation, providing an interesting insight into Namibia's geological past.

In eastern Namibia, the formations are covered with deposits of a much more recent past (Mendelsohn et al., 2002). The deposits are loose, aeolian of origin, sandy and unconsolidated. On the surface the east of Namibia appears monotonous and uniform, covered with dense vegetation in the north and decreasing to the south. Most of the knowledge about these sediments has been derived from water abstraction boreholes, rare outcrops and underlying formations exposed along drainage lines and around isolated pans.

Apart from diamonds, most of Namibia's valuable mineral resources have been found in the western part of Namibia where the oldest rocks are exposed to the surface, i.e., in the Damara Supergroup (Mendelsohn et al., 2002).

The geology over which the EPL falls mainly consists of the Swakop group (Damara supergroup and Gariep complex) and Waterberg Basin (Karoo Supergroup). The main rock types are metamorphic sedimentary rocks and compact sandstone, shale, conglomerate and locally quartzites (Bubenzer, 2002).

The topography of the EPL area is relatively flat. The elevation of the EPL varies with less than 100 meters throughout the majority of the EPL (Figure 7). The highest point is about 1580 m above sea level (hills in the eastern corner of EPL) and the lowest point is just below 1400 m above sea level.

Namibian soils vary a great deal on a broad scale with a great deal of variability at a local level. The dominant soils found within the EPL boundary include chromic Cambisols and ferralic Arenosols.

The first part of the soil name denotes soil properties. ferralic represents soils that contain high contents of combined oxides of aluminium and iron, whereas Chromic refers to soils that have bright colours. The second name reflects the conditions and processes which have led to the formation of the soils (Mendelsohn et al., 2002).

Cambisols are soils that usually have a medium to high fertility but are also characterised by the absence of significant quantities of organic material, clay, iron and aluminium. Considering geological time Cambisols were formed quite recently mainly from medium to fine-textured parent materials (Mendelsohn et al., 2002).

Arenosols refer to soils formed from “wind-blown sand” and this usually extends to depths of at least one meter and 70% of the soil is usually sand (Mendelsohn et al., 2002).

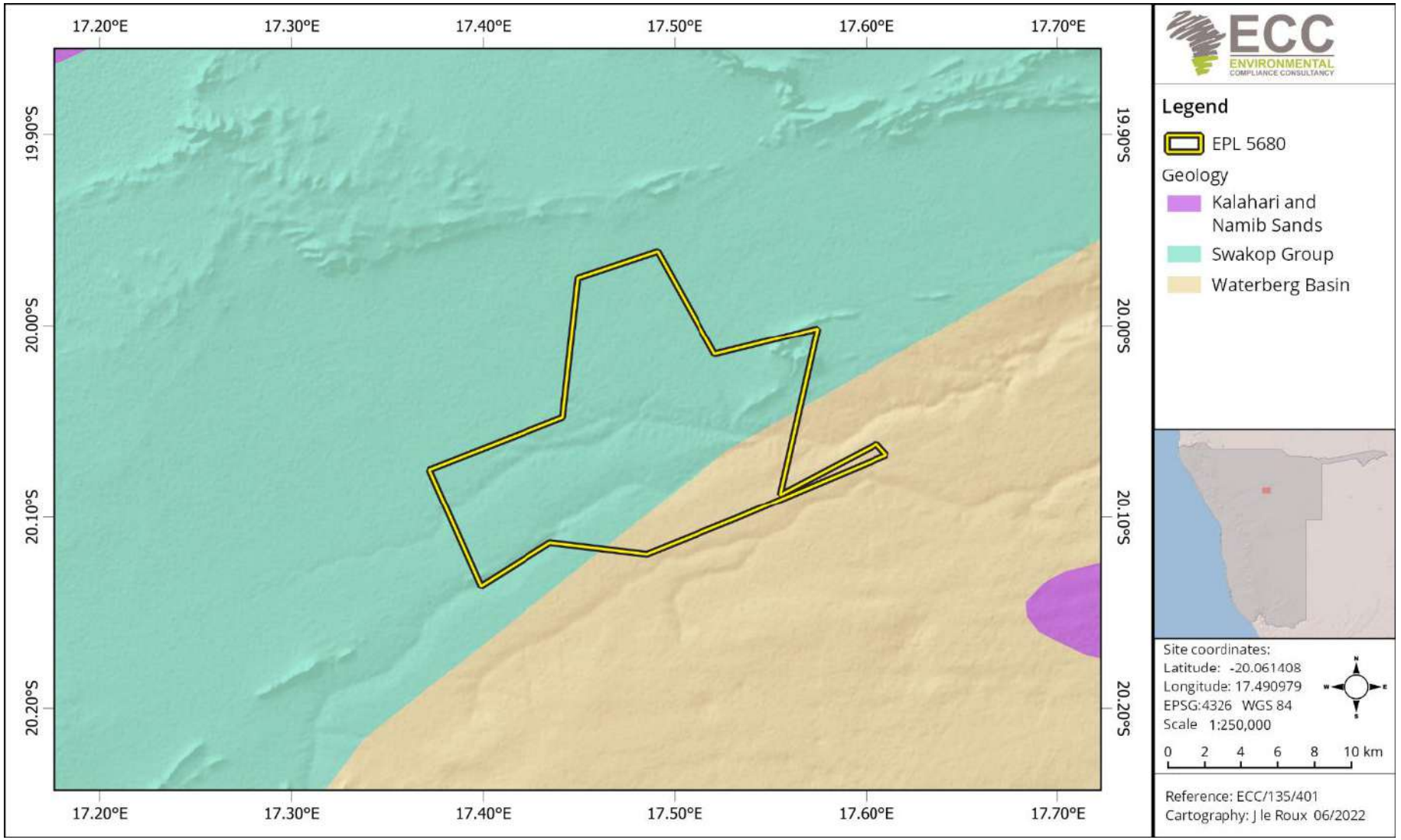


Figure 6 - Regional Geological setting on EPL 5680

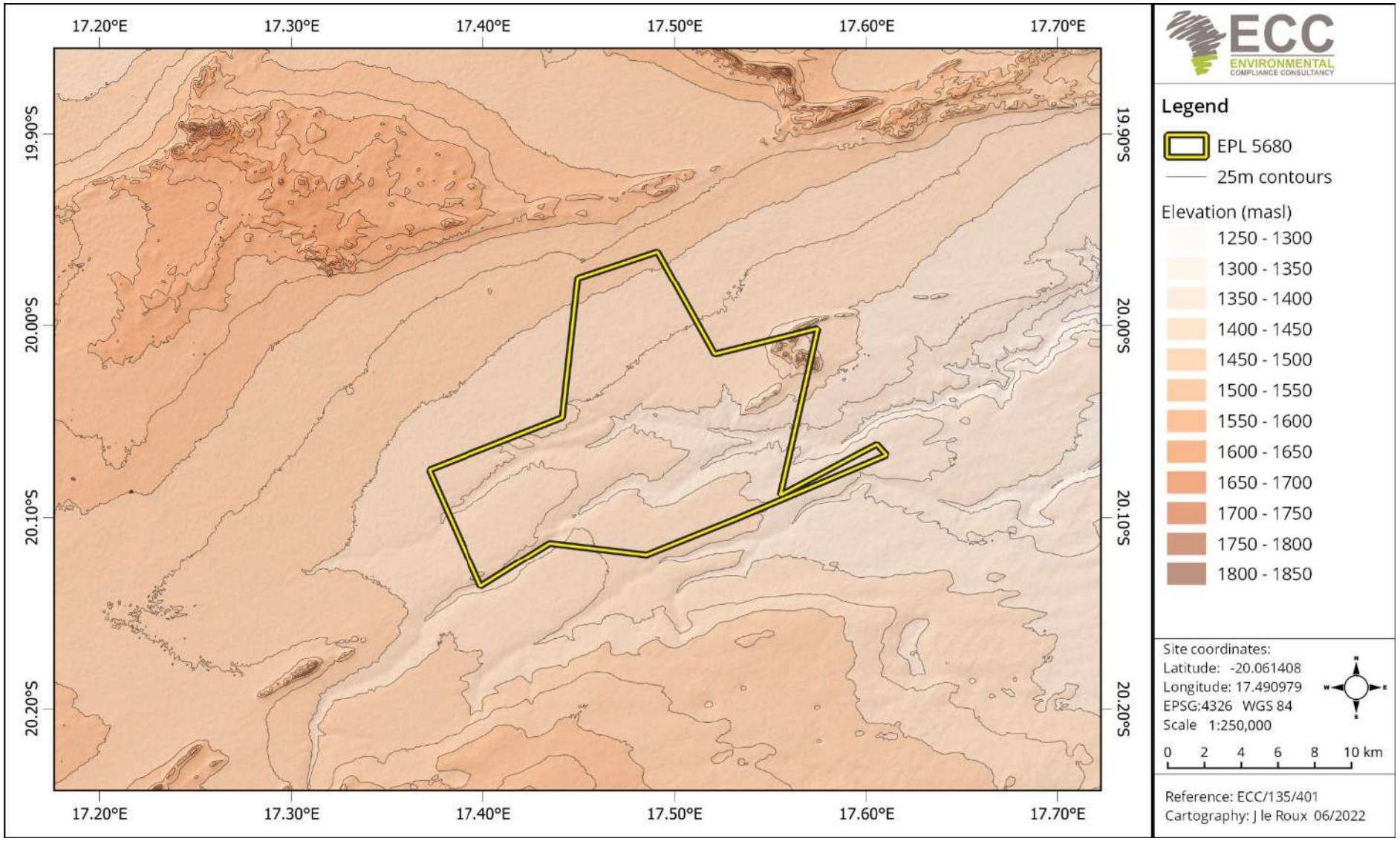


Figure 7 - Elevation of EPL 5680

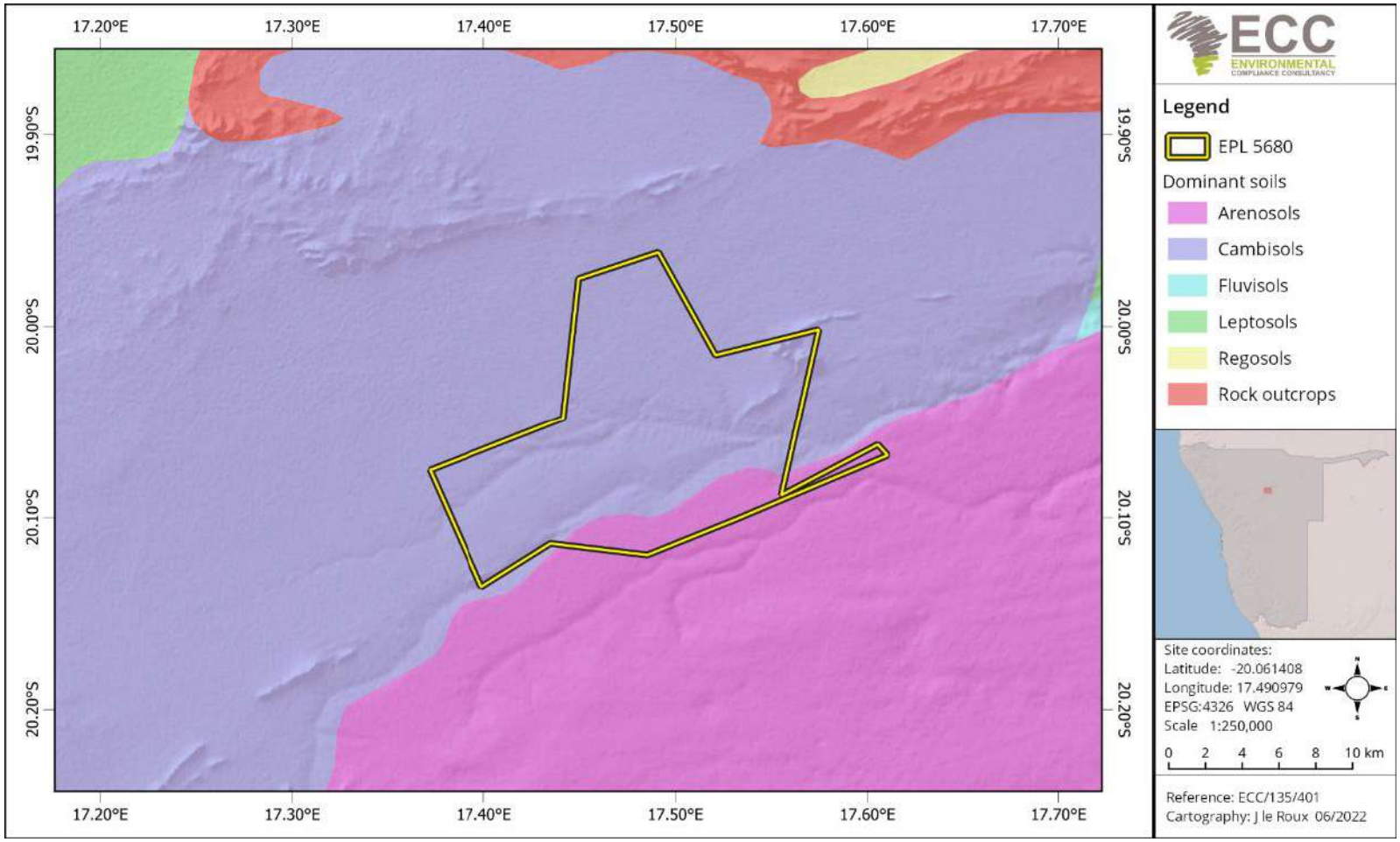


Figure 8 - Dominant soils found within and surrounding the EPL boundary

5.5 HYDROGEOLOGY

According to the Namibian Monitoring Information System & Hydrological Map of Namibia (https://na-mis.com/), the site falls mainly over rock bodies with generally little groundwater potential. The groundwater vulnerability in this area is considered to be low and groundwater recharge within this area is considered to be low (<0.5% of the total average rainfall). Groundwater in this area is generally of good and excellent quality (Group A and B).

The EPL falls over the Omatako groundwater basin and the northern part of the EPL falls over the Grootfontein Subterranean Water Control area as seen in Figure 9. There are two rivers that run through the central part of the EPL from west to east, where they merge (just before the eastern boundary of the EPL.

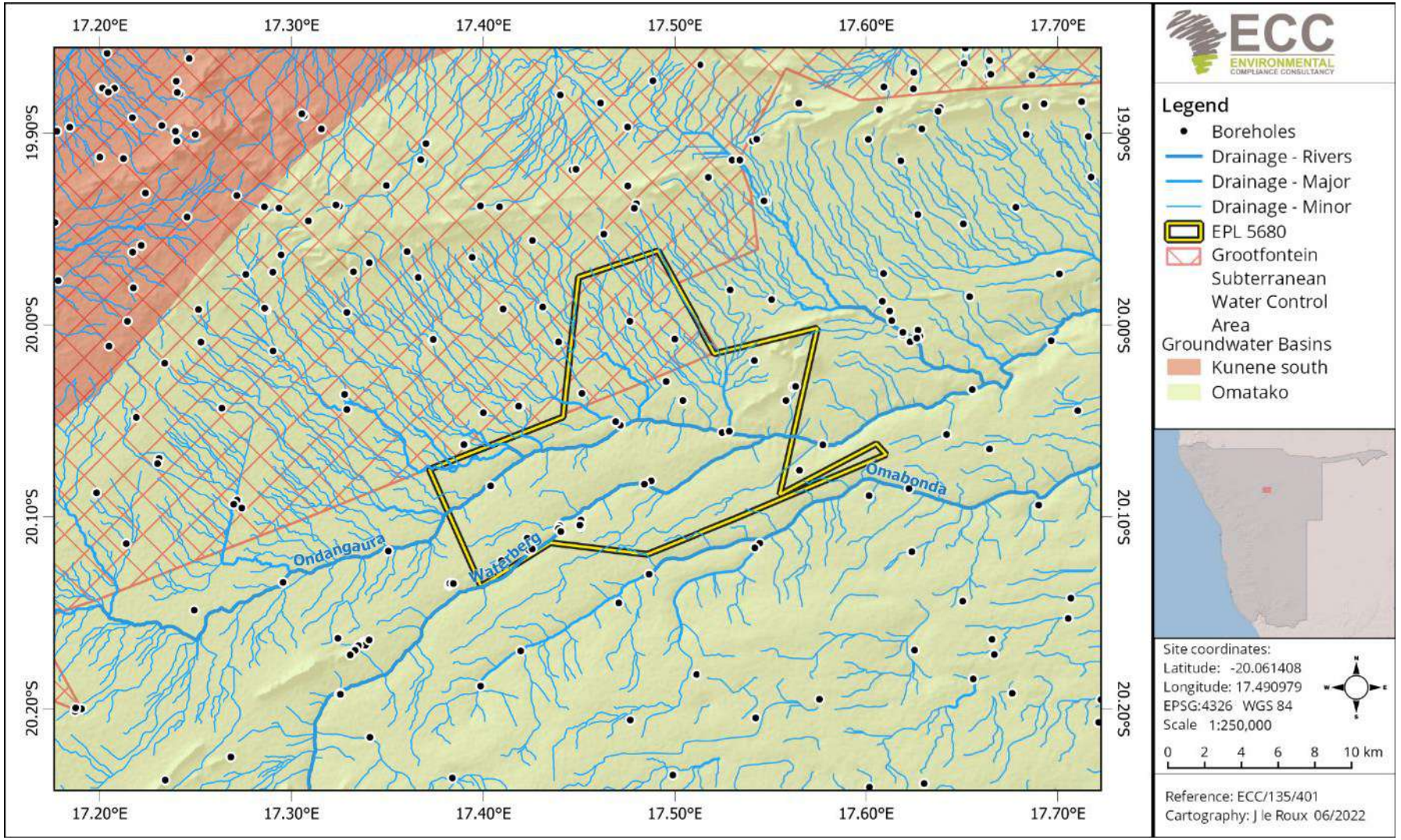


Figure 9 - Hydrology map of EPL 5680

5.6 BIODIVERSITY BASELINE

5.6.1 FLORA

The Vegetation in Namibia is strongly influenced by rainfall. The plant diversity and tallest trees are most lush in the north-eastern parts of the country and contrast sparser and shorter to the west and south of the country. This gradient is not simple as factors such as soil types, landscape and human impacts may also influence the vegetation. The plant diversity (300 to 500 species) for this area is medium to high, with low endemism (2 to 5 species) and the dominant vegetation structure for the EPL is dense shrubland and shrubland -woodland mosaic, the vegetation type is thornbush shrubland and northern Kalahari and the EPL falls within the Savanna biome (Mendelsohn et al. 2002).

In this part of Namibia the following tree and shrub species are either protected under national legislation, endemic, near-endemic or listed in the CITES appendices: *Aloe littoralis* (Nature Conservation Ordinance and CITES II), *Ficus burkei* (Forestry protected), *Ficus Cordata* (Forestry protected), *Ficus sycomorus* (Forestry protected), *Obetia carruthersiana* (near-endemic), *Boscia albitrunca* (Forestry protected), *Gyrocarpus americanus* (Forestry protected), *Securidaca longepedunculata* (Forestry protected), *Maerua schinzii* (Forestry protected), Albizia anthelmintica (Forestry protected), *Vachellia erioloba* (Forestry protected), *Burkea africana* (Forestry protected), *Peltophorum africanum* (Forestry protected), *Philenoptera nelsii* (Forestry protected), *Erythrina decora* (Endemic and Forestry protected), *Euphorbia avasmontana* (CITES II), *Euphorbia guerichiana* (CITES II), *Schinziophyton rautanennii* (Forestry protected), *Spriostachys africana* (Forestry protected), *Sclerocarya birrea* (Forestry protected), *Elaeodendron transvaalense* (Forestry protected), *Lannea discolor* (Forestry protected), *Berchemia discolor* (Forestry protected), *Ziziphus mucronata* (Forestry protected), *Ochna pulchra (Forestry protected),* and *Cyphostemma juttae (Nature Conservation Ordinance and Endemic)* (Mannheimer & Curtis, 2009).

According, to a plant species list of the area provided by the Namibian Botanical Research Institute (NBRI) there are 2 near-endemic species (*Bolusia amboensis (Schinz) Harms, Orbea lugardii (N.E.Br.) Bruyns* (also protected)), 6 endemic species (*Antiphiona pinnatisecta (S.Moore) Merxm, Blepharis gigantea Oberm, Hibiscus fleckii Gürke, Pentatrichia rehmii (Merxm.) Merxm. subsp. avasmontana (Merxm.) Klaassen & Kwembeya, Rennera eenii (S.Moore) Källersjö (also near threatened), Stapelia schinzii A.Berger & Schltr. var. schinzii (also protected)*) and in addition to the endemic, near endemic and protected species mentioned above the following two protected species were also sampled in the area (*Ceropegia lugardiae N.E.Br., Tavaresia barklyi (Dyer) N.E.Br.*) (Appendix G).

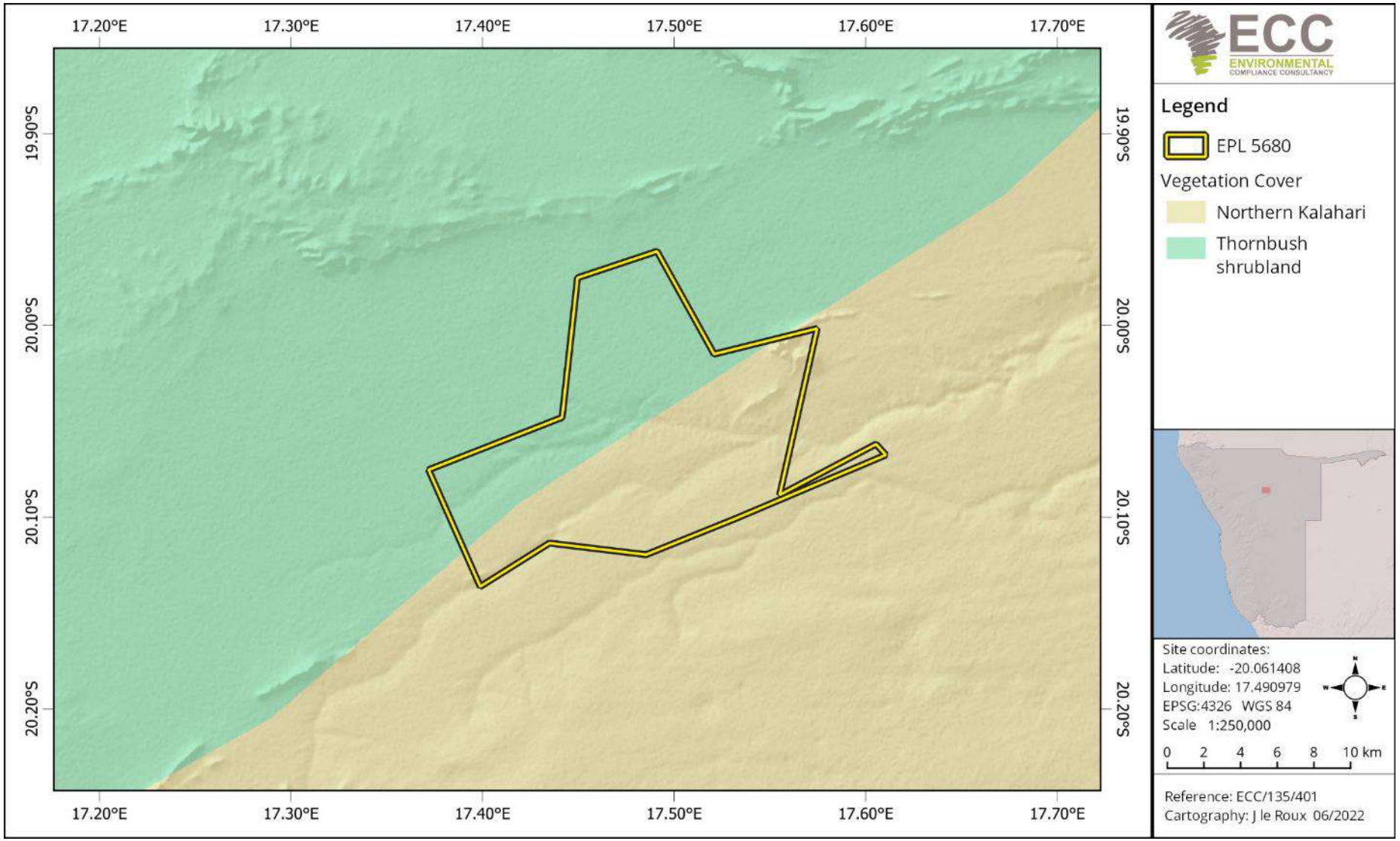


Figure 10 - Vegetation map of EPL 5680

5.6.2 FAUNA

The overall terrestrial diversity for the area is moderate compared to other parts of the country. The area within and surrounding the EPL has a high bird diversity status of about 342 species (residents and migrants), with a low bird endemism (between 1 to 3 species) and represents an area with moderate mammal diversity of between 76 to 90 species (1 to 2 of these species are endemic). four large carnivore species have been recorded in the project area (Bubenzer, 2002, IUCN, 2021, Mendelsohn et al., 2002, Oberprieler and Cillié, 2008 & Stuart and Stuart, 2015).

Furthermore, the reptile diversity within this area is high with between 71 and 80 species, 5-8 endemic species; the number of observed lizard species for this area is between 28 to 31 of which 3 to 5 species are endemic and the different snakes recorded are between 40 to 44 species (3 to 6 endemic species). This area also has a frog diversity of between 12 and 15 species, and also a low to moderate scorpion diversity (10 to 13 species). (Bubenzer, 2002 & Mendelsohn et al., 2002).

Most bird species in Namibia fall under Schedule 4: Protected Game within the Namibian Conservation Ordinance No. 4 of 1975, except for the following excluded species: Weavers, Sparrows, Mousebirds, Redheaded Quela, Bulbul, and Pied crow as well as 19 huntable game bird species identified in Schedule 6 of the Nature Conservation Ordinance (Nature Conservation Ordinance No. 4 of 1975).

A large number of bird species are highly migratory and pass-through Namibia sporadically, thus some of the species might be very rare to identify during the year, nonetheless could potentially be spotted within the EPL boundaries periodically. Water on-site during the rainy season might attract various water birds (either resident or migratory).

In this part of Namibia, are numerous bird species that are either additionally protected under the regulations of the Exploitation of Marine Resources Act No. 241 of 2001, section 18 or listed within the CITES appendices. Some of these species might potentially be found or encountered near or within EPL boundaries during a given year (depending on the season and migratory patterns).

Various protected or threatened mammal species may occur on the project site of which two are classified as near threatened (Striped Leaf-nosed Bat, Brown Hyena) and four are classified as vulnerable (Cheetah, Leopard, Pangolin, Black-footed cat) according to the IUCN red list of threatened species (IUCN 2022).

Furthermore, all tortoise species, rock monitors and pythons (dwarf and rock pythons) that might potentially be encountered within the EPL boundaries are protected under the Nature Conservation Ordinance No. 4 of 1975.

5.7 SOCIAL AND SOCIO-ECONOMIC BASELINE

Otjozondjupa Region is clustered into seven constituencies (Grootfotein, Okahandja, Omatako, Okakarara, Otavi, Otjiwarongo and Tsumkwe). The region's capital town is Otjiwarongo. Local authorities govern the towns in a form of municipali3ties. Otjozondjupa Region occupies 105 460 km^2 of Namibia's 824 292 km^2 total surface area and lies approximately 330 km northeast of the central Khomas Region. To the west and northwest, the region is boarded by Erongo and Kunene region and Kavango East and Kavango west are northeast and Omaheke region to the south-east. Otjozondjupa is amongst six regions that predominantly have a larger male population (51.5%) than females (NSA, 2014).

Namibia is one of the least densely populated countries in the world (2.8 people per km^2). Vast areas of Namibia are still without people, in contrast to some dense concentrations, such as the central-north and along the Kavango River.

The projected total population for Otjozondjupa Region was 158 237, making up 6.6 % of the country's population and an annual growth rate of 0.6 % in 2018 (NSA, 2018). In the Otjozondjupa region approximately 54% of all people live in an urban area and 46 % in rural areas in 2011. Otjiherero is the most spoken language (27 % of all households). The average household size is 3.9 people and the literacy rate is 83 % for people older than 15 (NSA, 2017). Living in an urban environment implies better living conditions – in the Otjozondjupa Region 95 % of all households have access to safe water, only 39 % have no proper ablution facilities, 56 % have electricity for lighting and 56 % of the population depend on open fires to prepare food (NSA, 2011).

The urban population pyramid for Namibia shows a very clear dominance of the age group 20 to 35 as well as for infants (0 to 4 years of age) (Figure 11). As the majority of people in the Otjozondjupa Region are living in an urban area. The majority of Namibia's population is young, as most of them are within the child-bearing age range (NSA 2014).

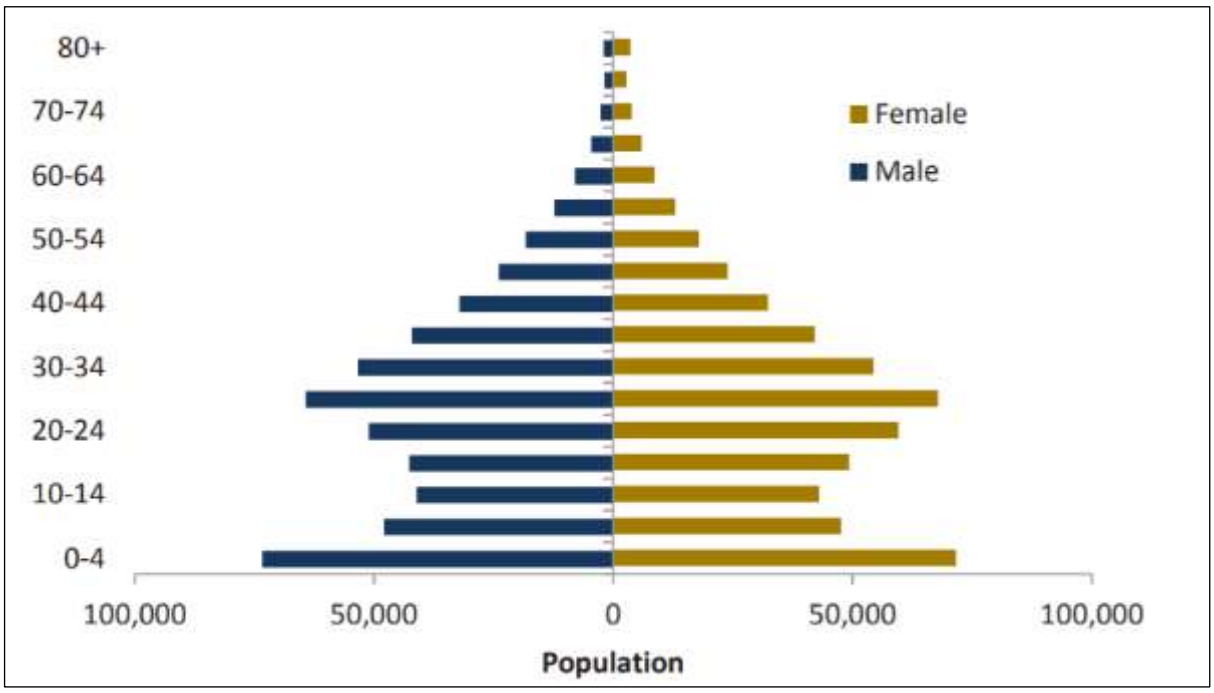


Figure 11 - 2014 urban population pyramid of Namibia (NSA 2014)

5.7.1 GOVERNANCE

Since its independence in 1990, Namibia is led by a democratically elected and stable government to date through three organs of government and functions (legislative, executive, and judiciary). The country was ranked 5th out of 54 African countries in the Ibrahim Index of African Governance in 2015 and subsequently ranked 4th out of 54 African countries in 2017 for indicators including the quality of governance and the government's ability to support human development; sustainable economic opportunity; rule of law and human rights; and development of smart information and communication technology to access information for socio-economic growth (National Planning Commission, 2017).

As a result of sound governance and stable macroeconomic management, Namibia has experienced rapid socio-economic development. Namibia has achieved the level of 'medium human development and ranks 125th on the Human Development Index out of 188 countries (NPC, 2020). Globally, Namibia was ranked 43rd out of 168 countries in 2018 on the Global Peace Index, as was therefore considered one of the most peaceful countries in the world (NPC, 2020).

5.7.2 EMPLOYMENT

In 2018, 53.4% of all working Namibians were employed in the private sector and 21.5% by the state. State-owned enterprises employ 7.6% of Namibians and private individuals 16.6%. Wages and salaries represented the main income source of 47.4% of households in Namibia. Agriculture (combined with forestry and fishing) as an economic sector has the most employees – 23% of all employed persons in Namibia work in this sector. Agriculture is also the sector that employs the most informal workers in Namibia, calculated at 87.6%. Wages of employees in the agriculture

sector are lower than all other sectors except for workers in accommodation and food services and domestic work in private households (NSA, 2019).

Low education levels affect employability and prevent many households to earn a decent income. Of all people employed in Namibia, 63.5% are not higher qualified than junior secondary level (Grade 10 and lower). In total 11.8% of all people employed had no formal education. In total 29.1% of all people employed are within the category "elementary occupation" and 15.2% in the category "skilled agriculture" (NSA, 2019).

Overall, the rate for unemployment is estimated at 33.4% for Namibia, using the broad definition of unemployment. More than 60% of the population is over 15 years of age and about one-third of the total population can be regarded as part of the labour force. The unemployment rate in rural and urban areas is almost the same – 33.4% in urban areas and 33.5% in rural areas (NSA, 2019). The youth group also ranks high in unemployment levels, even though many Namibia youth complete post-secondary education. In 2018 the unemployment level was at 59.6% for those aged 15-19, 57% for those aged 20-24, and 42.3% for 25-29-year-olds (NSA, 2018).

According to the Socio-Economic impact Assessment of COVID-19 in Namibia by the United Nations Namibia (2020), there has been an estimated increase in unemployment from 33.4% to 34.5% and through a best-case scenario, it is also estimated that poverty will increase from 17.2% to 19.5% due to a drop in the domestic GDP (United Nations Namibia 2020).

In In the Otjozondjupa Region, 61.7 % of all households depend on salaries and wages as their main income source, 2.6 % of households depend on subsistence farming as the main income whilst 9.9 % derive incomes from business activities, non-farming activities and pension (NSA, 2018).

The figure for informal-employed people is also lower (44.2 %) as people are employed in a wider range of secondary and tertiary economic sectors such as administration, security, services and accommodation and food service activities (NSA, 2018).

Guest farms, museums, craft shops, game parks/reserves and private game farms, the Waterberg Plateau Park, the Hoba meteorite site and other tourism-related economic activities further drive economic activities in Otjozondjupa Region. Income and employment through tourism are growing, subsequently.

Since 2016, Namibia has recorded slow economic growth, registering an estimated growth of only 1.1 % in 2016. The primary and secondary industries contracted by 2.0 % and 7.8 % respectively. During 2017 the economy contracted by 1.7 %, 0.7 % and 1.9 % in the first, second and third quarters respectively (NSA, 2019). Despite the more positive expectations, the economy retracted to average growth of not more than 1 % annually since 2017.

During the second quarter of 2020 the domestic economy contracted by 11.1%, which is the largest contraction since 2013; but the Bank of Namibia (BoN) predicts that the Gross Domestic Product (GDP) could grow by 1.9 % in 2021 and by 2.8 % in 2022. The impact assessment also showed that 96.5% of tourism businesses have been affected by COVID-19 in 2020, the manufacturing and construction sectors contracted by 9.2 % and 5.7 % respectively and there was also a 2 % to 3 % decline in net export (United Nations Namibia 2020).

5.7.3 ECONOMIC ENVIRONMENT

Mining plays a pivotal role in the economy of Namibia. Since independence, it has consistently been the biggest contributor to Namibia's economy in terms of revenue and accounts for 25% of the country's income. Mining is one of the main contributors to GDP, and one of the largest economic sectors of Namibia.

Since 2016, Namibia has recorded slow economic growth, registering an estimated growth of only 1.1% in 2016. The primary and secondary industries contracted by 2.0 and 7.8% respectively. During 2017 the economy contracted by 1.7, 0.7 and 1.9% in the first, second and third quarters respectively (NSA, 2019). Despite the more positive expectations, the economy retracted to an average growth of not more than 1% annually since 2017.

During the second quarter of 2020, the domestic economy contracted by 11.1%, which is the largest contraction since 2013; However, the Bank of Namibia (BoN) predicts that the Gross Domestic Product (GDP) could grow by 1.9% in 2021 and by 2.8% in 2022. The impact assessment also showed that 96.5% of tourism businesses have been affected by COVID-19 in 2020, the manufacturing and construction sectors contracted by 9.2% and 5.7% respectively and there was also a 2% to 3% decline in net exports (United Nations Namibia 2020).

In the Otjozondjupa Region, 61.7 % of all households depend on salaries and wages as their main income source, 2.6 % of households depend on subsistence farming as the main income whilst 9.9 % derive incomes from business activities, non-farming activities and pension (NSA, 2018).

The figure for informal-employed people is also lower (44.2 %) as people are employed in a wider range of secondary and tertiary economic sectors such as administration, security, services and accommodation and food service activities (NSA, 2018).

Guest farms, museums, craft shops, game parks/reserves and private game farms, the Waterberg Plateau Park, the Hoba meteorite site and other tourism-related economic activities further drive economic activities in Otjozondjupa Region. Income and employment through tourism are growing, subsequently.

5.7.4 HEALTH AND DISEASE

Since independence in 1990, the health status of Namibia has increased steadily, with a remarkable improvement in access to primary health facilities and medical infrastructure. In 2015, the World Health Organisation (WHO) recommended strategic priorities for the health system in Namibia, which entailed improved governance, an improved health information system, emergency preparedness, risk reduction and response, preventative healthcare, and the combating of HIV/AIDS and TB (WHO, 2016).

According to the website of the Ministry of Health and Social Services (MHSS), the Erongo Region has a total of 18 primary healthcare facilities, including two health centers, and four district hospitals. There are also private hospitals in Swakopmund and Walvis Bay.

As elsewhere in Namibia, HIV/AIDS remains a major reason for low life expectancy and is one of the leading causes of death in the region. HIV/AIDS remains the leading cause of death and premature mortality for all ages, killing up to half of all males and females aged 40 to 44 years in 2013 (IHME, 2016).

Tuberculosis (TB) is a leading killer of people infected by HIV/AIDS, and Namibia had a high burden in 2018 – 35% of people with TB were infected with HIV. The country is included among the top 30 high-burden TB countries in the world, with an estimated incidence rate of 423 per 100,000 people, and 60 fatalities per 100,000 people in 2018 (retrieved from www.mhss.gov.na).

As of the beginning of 2020, the coronavirus (COVID-19), caused illness in humans on a pandemic scale and has resulted in an increasing number of deaths worldwide. The viral outbreak has adversely affected various socioeconomic activities globally, and with reports of a continually increasing number of people testing positive, it is anticipated that this may have significant impacts on the operations of various economic sectors in Namibia too. The disease caused many countries to enter a state of emergency, which included various levels of lockdown restrictions that had dire economic consequences. In addition, these measures have had a detrimental effect on tourism, and Namibia is, in both cases, no exception.

Furthermore, COVID-19 has also resulted in a loss of learning and socialising opportunities for children in Namibia and there was a lack of access to school feeding programs and parents had to provide or find alternative care for children. There has also been a 6 % increase in health workers across Namibia as a result of the pandemic (United Nations Namibia 2020). The Namibian economy remains confined, following the aftermath of COVID-19. Hence, development partners, public and private sectors need the commitment to explore new approaches in order to revive the fragile economy (NSA,2019). By mid-February 2022, Namibia has recorded 4 002 deaths due to COVID-19 most of these deaths occurred in 2021, as a result of the Delta and Omicron variants.

5.7.5 CULTURAL HERITAGE

From the Namibian GIS data and information from the Atlas of Namibia and other sources, there is one archaeological site from the past 10000 and 2000 years near the EPL boundaries (approximately 1.6km) and no sites concerning the following periods near or in the EPL: records from 1.8 million to 10000 years ago or within the last 2000 years (Bubenzer, 2002 & Mendelsohn et al., 2002). Regardless, there is still the potential to uncover undiscovered heritage remains.

There is an old cemetery on farm Onora and Rosalia, the Proponent will need to add a no-go buffer zone around this site and should be managed as outlined in the EMP.

6 IMPACT IDENTIFICATION & EVALUATION METHODOLOGY

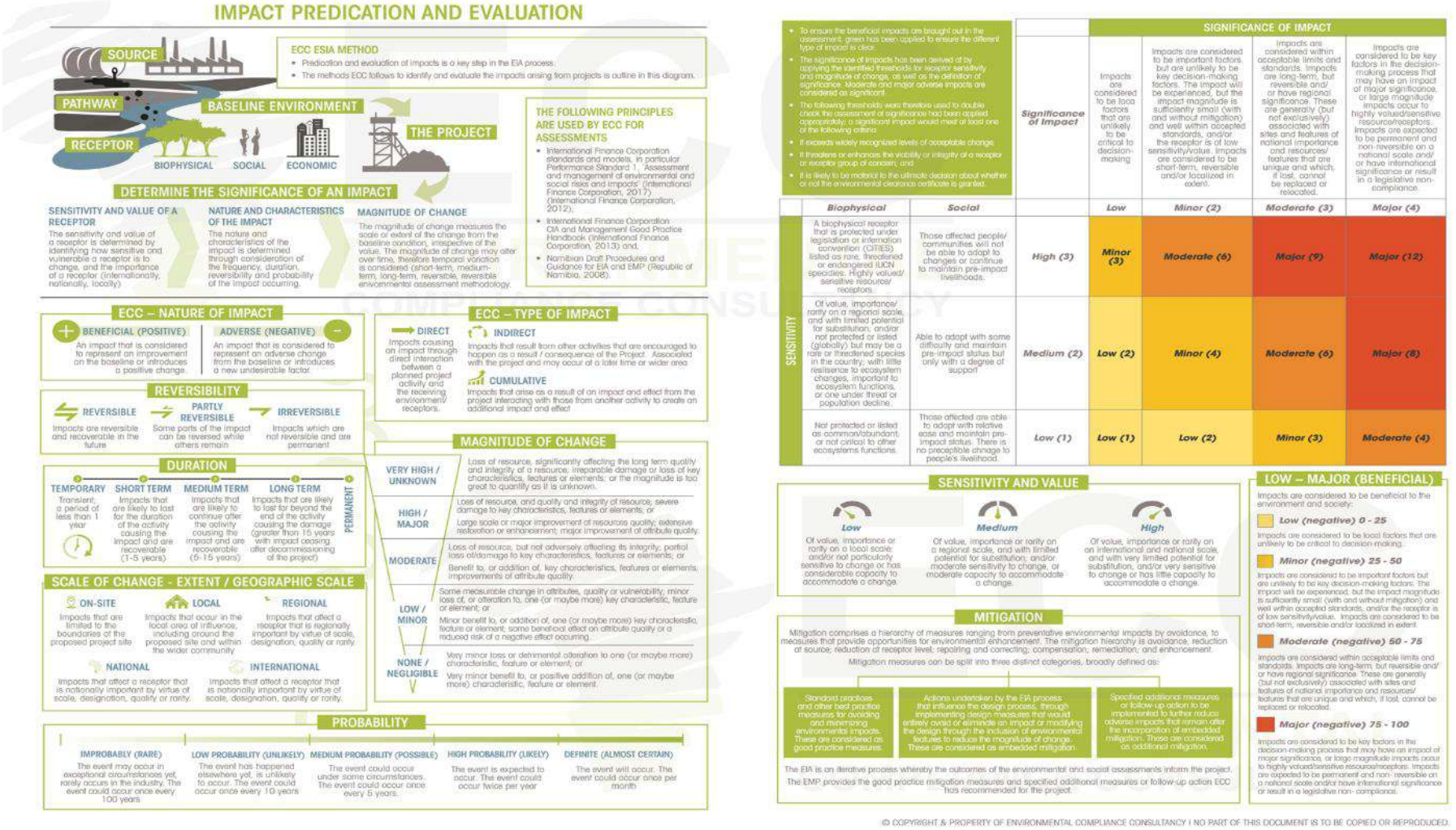
6.1 INTRODUCTION

This chapter outlines ECCs method to identify and evaluate impacts arising from the proposed project. The findings of the assessment are presented in Chapter 7.

The evaluation and identification of the environmental and social impacts require the assessment of the project characteristics against the baseline characteristics, ensuring all potentially significant impacts are identified and assessed. The significance of an impact is determined by taking into consideration the combination of the sensitivity and importance or value of environmental and social receptors that may be affected by the proposed project, the nature and characteristics of the impact, and the magnitude of potential change. The magnitude of change (the impact) is the identifiable changes to the existing environment which may be negligible, low, minor, moderate, high, or very high; temporary or short term, long-term or permanent; and either beneficial or adverse as shown in Figure 12.

This chapter provides the following:

- Details on the assessment guidance used to assess impacts;
- Lists the limitations, uncertainties and assumptions with regards to the assessment methodology;
- Details how impacts were identified and evaluated, and how the level of significance was derived; and
- Details how mitigation was applied in the assessment and how additional mitigation was identified.



- To ensure the beneficial impacts are brought out in the assessment, green has been applied to ensure the different type of impact is clear.
- The significance of impacts has been derived of by applying the identified thresholds for receptor sensitivity and magnitude of change, as well as the definition of significance. Moderate and major adverse impacts are considered as significant.
- The following thresholds were therefore used to double check the assessment of significance had been applied appropriately; a significant impact would meet at least one of the following criteria:
- It exceeds widely recognized levels of acceptable change;
- It threatens or enhances the viability or integrity of a receptor or receptor group of concern; and
- It is likely to be material to the ultimate decision about whether or not the environmental clearance certificate is granted.

			SIGNIFICANCE OF IMPACT			
		Significance of Impact	Impacts are considered to be local factors that are unlikely to be critical to decision-making	Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.	Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/ or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/ features that are unique and which, if lost, cannot be replaced or relocated.	Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non-reversible on a national scale and/ or have international significance or result in a legislative non-compliance.
	Biophysical	Social		Low	Minor (2)	Moderate (3)	Major (4)
SENSITIVITY	A biophysical receptor that is protected under legislation or internation convention (CITIES) listed as rare, threatened or endangered IUCN specicies. Highly valued/ sensitive resource/ receptors.	Those affected people/ communities will not be able to adopt to changes or continue to maintain pre-impact livelihoods.	High (3)	Minor (3)	Moderate (6)	Major (9)	Major (12)
	Of value, importance/ rarity on a regional scale, and with limited potential for substitution, and/or not protected or listed (globally) but may be a rare or threatened species in the country; with little resilience to ecosystem changes, important to ecosystem functions, or are under threat or population decline.	Able to adopt with some difficulty and maintain pre-impact status but only with a degree of support	Medium (2)	Low (2)	Minor (4)	Moderate (6)	Major (8)
	Not protected or listed as common/abundant, or not critical to other ecosystems functions.	Those affected are able to adopt with relative ease and maintain pre-impact status. There is no perceptible change to people's livelihood.	Low (1)	Low (1)	Low (2)	Minor (3)	Moderate (4)

SENSITIVITY AND VALUE

Low
Of value, importance or rarity on a local scale; and/or not particularly sensitive to change or has considerable capacity to accommodate a change.

Medium
Of value, importance or rarity on a regional scale, and with limited potential for substitution; and/or moderate sensitivity to change, or moderate capacity to accommodate a change.

High
Of value, importance or rarity on an international and national scale, and with very limited potential for substitution, and/or very sensitive to change or has little capacity to accommodate a change.

MITIGATION

Mitigation comprises a hierarchy of measures ranging from preventative environmental impacts by avoidance, to measures that provide opportunities for environmental enhancement. The mitigation hierarchy is avoidance, reduction at source; reduction at receptor level; repairing and correcting; compensation; remediation; and enhancement.

Mitigation measures can be split into three distinct categories, broadly defined as:

- Standard practices and other best practice measures for avoiding and minimising environmental impacts. These are considered as good practice measures.
- Actions undertaken by the EIA process that influence the design process, through implementing design measures that would entirely avoid or eliminate an impact or modifying the design through the inclusion of environmental features to reduce the magnitude of change. These are considered as embedded mitigation.
- Specified additional measures or follow-up action to be implemented to further reduce adverse impacts that remain after the incorporation of embedded mitigation. These are considered as additional mitigation.

The EIA is an iterative process whereby the outcomes of the environmental and social assessments inform the project.

The EMP provides the good practice mitigation measures and specified additional measures or follow-up action ECC has recommended for the project.

LOW – MAJOR (BENEFICIAL)

Impacts are considered to be beneficial to the environment and society:

Low (negative) 0 - 25
Impacts are considered to be local factors that are unlikely to be critical to decision-making.

Minor (negative) 25 - 50
Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.

Moderate (negative) 50 - 75
Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/ or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/ features that are unique and which, if lost, cannot be replaced or relocated.

Major (negative) 75 - 100
Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance.

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Figure 12 - ECC assessment methodology

6.2 ASSESSMENT GUIDANCE

- The principal documents used to inform the assessment method are:
- International Finance Corporation standards and models, in particular, Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012);
- International Finance Corporation CIA and management good practice handbook (International Finance Corporation, 2013); and,
- Namibian draft procedures and guidance for EIA and EMP (Republic of Namibia, 2008).

6.3 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

The following limitations and uncertainties associated with the assessment methodology were observed:

- Topic-specific assessment guidance has not been developed in Namibia. A generic assessment methodology was applied to all topics using IFC guidance and professional judgement.

Several limitations and uncertainties were acknowledged during the ESIA process. In line with ESIA best practice, assumptions have been made based on realistic worst-case scenarios, thereby ensuring that the worst-case potential environmental impacts are identified and assessed. Table 6 contains the assumptions and uncertainties identified during the assessment process.

Where uncertainties exist, a cautious approach has been applied, allowing the worst-case scenario for potential impacts to be identified. Where limitations and uncertainties exist, assumptions have been made and applied during the assessment process. These have been clearly described in the baseline section.

Table 6 - Limitations, uncertainties and assumptions

LIMITATION/UNCERTAINTY	ASSUMPTION
Number of access roads	The making of new tracks or access roads will be minimized, and existing tracks and routes will be used as far as possible. While every effort will be made to minimize environmental damage, in some cases it will be necessary to clear some bush to create small roads, which may be required for equipment to reach the site and for temporary campsites. If needed, cut lines have to be created by clearing vegetation to have access to some parts of the EPL.
The program of exploration works is not confirmed	It is assumed that exploration work shall take a couple of months with two to three-week sampling projects at different times on different sites and with follow-up exploration drilling projects possible. Activities involve

LIMITATION/UNCERTAINTY	ASSUMPTION
	drilling, remote sensing; geophysical surveys (airborne and ground-based), geochemical surveys and geological mapping. Pitting and trenching are unlikely and generally not favoured. If commercially viable concentrations can be defined by preliminary drilling, a next phase of both reverse circulation and diamond core techniques for advanced resource drilling operations is possible.

7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MEASURES

This chapter presents the findings of the ESIA for the proposed project as per the ESIA process, scope and methodology set out in Chapters 2 and Chapter 6. A range of potential impacts has been identified that may arise as a result of the proposed project. This ESIA report aims to focus on the significant impacts that may arise as a result of the proposed project. This chapter therefore only considers the significant impacts and or those that may have specific interest to the community and stakeholders. A summary of impacts that are considered significant is discussed in this section.

When undertaking the assessment exercise, the design of the proposed project and best practice measures were considered to ensure the likely significant effects and any required additional mitigation measures were identified. A summary of the potential impacts and mitigation and or control measures are discussed below.
The following topics were considered during the scoping phase:

- Water (surface - and groundwater);
- Soil;
- Landscape (visual impacts, sense of place);
- Socio-economics (employment, demographics, and land-use);
- Noise;
- Ecology (fauna and flora);
- Air quality (emissions, pollutants and dust); and
- Heritage (including culture, history, archaeology and palaeontology).

7.1 POTENTIAL IMPACTS TO WATER

Table 7 tables below sets out the findings of the scoping assessment phase. Activities that could be the source of an impact have been listed, followed by receptors that could be affected. The pathway between the source and the receptor has been identified where both are present. Where an activity and or receptor have not been identified, an impact is unlikely, thus no further assessment or justification is provided. Where the activity, receptor and pathway have been identified, a justification has been provided documenting if further assessment is required or not required.

Due to the nature and localised scale of the exploration activities, and the environmental context of the EPL, the potential environmental and social effects are limited and unlikely to be significant. Aspects that prompted uncertainty to relate to the potential increase in movements and the presence of people, which may cause the introduction of illegal and covert activities such as

poaching, stock theft and the collection of organisms. Similarly, the potential of accidental veld fires may increase. In both cases, the terrestrial ecology and biodiversity of Namibia are the receptor, although local landowners and their neighbours may experience these adversities firsthand. The recommended mitigation measures are contained in each impact table below.

All precautions must be taken to prevent damage to heritage sites, in particular when a site with paleontological remains is discovered as a result of the exploration activities. The chance-find procedure will be implemented in such a case. With the necessary mitigation measures in place, the significance of the impact reduces from moderate to minor.

7.2 POTENTIAL IMPACTS TO WATER

Table 7 – Potential impacts to water - assessment findings and the proposed mitigation measures

ASPECT	WATER	
Description of activity	Site operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources.	
Description of impact	Hydrocarbon leaks and spills could enter the aquifer causing contamination	
Assessment of impact	**Receptor**	**Groundwater quality**
	Effect/description of magnitude	Adverse Direct Partly Reversible Minor Short term local unlikely
	Value of sensitivity	low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	– Good housekeeping – Training through toolbox talks and induction – Spill kits and absorption material available during fuel delivery, storage or use – Accidental spills and leaks (including absorption material) to be cleaned as soon as possible – Major spills to be reported, also to the authorities – Maintenance and service schedules on equipment is in place – Store bulk fuel in adequate containment areas (non-porous surface, bunded)	

ASPECT	WATER	
	– No damaged containers in use – Preventative measures will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers) – Refuelling will be done in areas with adequate preventative measures in place	
Residual impact after mitigation	**Low (1)**	
ASPECT	WATER	
Description of activity	Potential spillages of drill fluid, lubrication, etc. or drilling that penetrate the groundwater table.	
Description of impact	Hydrocarbon leaks and spills could enter the aquifer causing contamination	
Assessment of impact	**Receptor**	**Groundwater quality**
	Effect/description of magnitude	Adverse Indirect Partly Reversible Minor Short term Local Unlikely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	– Ensure spill kits and preventative measures (e.g., drill pads) are in place at exploration sites – Consider alternative sites when water table is too high – Drill system should be dug to direct any accidental spills into sumps – Extraction volumes of water shall be minimal during exploration and where possible, water from existing water sources shall be used	
Residual impact after mitigation	**Low (1)**	
ASPECT	WATER	
Description of activity	Discharge and infiltration of non-contained wastewater.	

ASPECT	WATER	
Description of impact	Wastewater can contaminate surface and groundwater.	
Assessment of impact	**Receptor**	**Surface and ground water**
	Effect/description of magnitude	Adverse Direct Partly Reversible Minor Short term Regional Unlikely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	– Wastewater discharges will be contained – Workers will be made aware about the importance of wastewater management – Good housekeeping – Ensure prompt clean-up of spills	
Residual impact after mitigation	**Low (1)**	
ASPECT	WATER	
Description of activity	Inadequate management of solid waste.	
Description of impact	Waste items and litter can pollute surface water drainage channels.	
Assessment of impact	**Receptor**	**Surface and ground water**
	Effect/description of magnitude	Adverse Cumulative Reversible Minor Temporary Regional Possible
	Value of sensitivity	Medium
	Magnitude of change	Minor

ASPECT	WATER	
	Significance of impact prior to mitigation	Minor (4)
Impact management/control measures	– Good housekeeping – Training and awareness through toolbox-talks and induction – Implement a Standard Operational Procedure (SOP) on waste management, for all kinds of waste possible on-site (e.g., domestic, mineral, hydrocarbons, hazardous) – Avoid hazardous waste on site – Implement a culture of correct waste collection, waste segregation and waste disposal	
Residual impact after mitigation	**Low (2)**	

7.1 POTENTIAL IMPACTS TO SOIL

Table 8 – Potential impacts to soil - assessment findings and the proposed mitigation measures

ASPECT	SOIL	
Description of activity	Inadequate management of hazardous and hydrocarbon waste.	
Description of impact	Pollution of soil.	
Assessment of impact	**Receptor**	**Soil**
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)

ASPECT	SOIL	
Impact management/control measures	– Good housekeeping – Training and awareness through toolbox-talks and induction – Implement a Standard Operational Procedure (SOP) on waste management, for all kinds of waste possible on-site (e.g., domestic, mineral, hydrocarbons, hazardous) – Avoid hazardous waste on site – Implement a culture of correct waste collection, waste segregation and waste disposal	
Residual impact after mitigation	**Low (1)**	
ASPECT	SOIL	
Description of activity	Vegetation clearing	
Description of impact	Increased exposure due to possible vegetation clearance can cause soil erosion.	
Assessment of impact	**Receptor**	**Soil**
	Effect/description of magnitude	Adverse Direct Reversible Moderate Short-term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	– Limit the possibility of compaction and creating of a hard subsurface – Limit the possibility of trampling – Topsoil should be stockpiled separately, and re-spread during rehabilitation – During drilling oil absorbent matting should be placed under and around the rig – Equipment must be in a good condition to ensure that accidental oil spills do not occur and contaminate soil – In the event of spills and leaks, polluted soils must be collected and disposed of at an approved site – Limit the possibility to mix mineral waste with topsoil	

ASPECT	SOIL	
Residual impact after mitigation	**Low (1)**	
ASPECT	SOIL	
Description of activity	Drilling and the use of drilling equipment.	
Description of impact	Loss of soil quality due to mixing of earth matter, trampling and compaction.	
Assessment of impact	**Receptor**	**Soil**
	Effect/description of magnitude	Adverse Direct Reversible Moderate Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Ensure erosion control and prevention measures are in place when vegetation clearance is required – Where necessary, plan access routes, drill pads and camps outside of existing drainage lines – Where necessary, install diversions to curb possible erosion – Restore drainage lines when disturbed	
Residual impact after mitigation	**Low (1)**	

7.1 POTENTIAL IMPACTS TO TERRESTRIAL ECOLOGY AND BIODIVERSITY

Table 9 – Potential impacts to terrestrial ecology and biodiversity - assessment findings and the proposed mitigation measures

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Vegetation clearing for access routes, drill pads and temporary contractor's camp.	
Description of impact	Loss / alteration of terrestrial habitats and loss of species	
	Receptor	**Terrestrial ecology and biodiversity**

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Assessment of impact	**Effect/description of magnitude**	Adverse Direct Reversible Minor Short term On-site Possible
	Value of sensitivity	Medium
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Use existing roads for access to avoid new tracks and cut lines – Minimise clearance areas through proper planning of the exploration activities – Where necessary, rescue and relocate plants of significance – Promote revegetation of cleared areas upon completion of exploration activities	
Residual impact after mitigation	**Low (1)**	
ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Ambient noise as a result of machinery and equipment-use and movement (e.g., drill rigs, generators, vehicles) and movement (also through the use of airborne equipment).	
Description of impact	Residing, slow-moving and nesting organisms can be disturbed (especially ground nesting birds and slow-moving reptiles, i.e., tortoises).	
Assessment of impact	**Receptor**	**Terrestrial ecology and biodiversity**
	Effect/description of magnitude	Adverse Direct Partly Reversible Moderate Short term On-site Likely
	Value of sensitivity	Medium
	Magnitude of change	Minor

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
	Significance of impact prior to mitigation	Minor (4)
Impact management/control measures	– Restrict excessive noise to areas of activities only – Restrict excessive noise to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday) – No activities between dusk and dawn – Drill equipment shall be suitably positioned to ensure that noisy equipment is away from receptors – All equipment to be shut down or throttled back between periods of use, – Respect civic aviation regulations about the use of a drone	
Residual impact after mitigation	**Low (2)**	
ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Increased movement of vehicles, machinery and equipment.	
Description of impact	Residing and nesting organisms such as reptiles can be disturbed, injured or killed (especially ground nesting birds and slow-moving reptiles, i.e., tortoises).	
Assessment of impact	**Receptor**	**Terrestrial ecology and biodiversity**
	Effect/description of magnitude	Adverse Direct Partly reversible Moderate Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Minor (4)

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Impact management/control measures	– Restrict movements to areas of activities only – Use existing tracks and routes only – Identify rare, endangered, threatened and protected species in advance – Route new tracks around protected species and sensitive areas – Restrict movements to daytime hours – Make workers aware and notify them on avoiding some areas – No driving off designated access routes (into the bush) / off-road driving – No animals or birds may be collected, caught, consumed or removed from site	
Residual impact after mitigation	**Low (2)**	
ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Increased disturbance of areas with natural vegetation.	
Description of impact	Alien species and weeds can be introduced to the area.	
Assessment of impact	**Receptor**	**Terrestrial ecology and biodiversity**
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	– All project equipment arriving on site from an area outside of the project or coming from an area of known weed infestations (not present on the project site) should have an internal weed and seed inspection completed prior to equipment being used – Monitor areas of activity for weed and alien species – Eradicate weeds and alien species as soon as they appear – Make workers aware about alien species and weeds	

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Residual impact after mitigation	**Low (1)**	
ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Accidental and uncontrolled fire	
Description of impact	Destroys grazing and kill living organisms	
Assessment of impact	**Receptor**	**Terrestrial ecology and biodiversity**
	Effect/description of magnitude	Adverse Direct Partly Reversible Moderate Temporary Local Possible
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	– Restrict movements of people to areas of activities only – Train people and raise awareness about veld fires and firefighting – No open fire outside designated areas – Ensure proper cooking facilities at fly camps – No cigarette buds are discarded but contained and disposed of at an appropriate facility – Proper fire hazard identification signage to be placed in areas that store flammable material (i.e., hydrocarbons and gas bottles) – Control and reduce the potential risk of fire by segregating and safe storage of materials – Avoid potential sources of ignition by prohibiting smoking in and around facilities – Firefighting equipment and fire breaks should always be at designated areas and should be maintained regularly	
Residual impact after mitigation	**Minor (3)**	

7.2 POTENTIAL IMPACTS TO HERITAGE

Table 10 – Potential impacts to heritage - assessment findings and the proposed mitigation measures

ASPECT	HERITAGE	
Description of activity	Drilling activities, movement of machinery and vehicles.	
Description of impact	Potential damage to cultural heritage sites.	
Assessment of impact	**Receptor**	**Heritage**
	Effect/description of magnitude	Adverse Direct Partly Reversible High Permanent On-site Possible
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	– Implement a Chance Find Procedure – Raise awareness about possible heritage finds – Report all finds that could be of heritage importance – In case archaeological remains to be uncovered, cease activities and the site manager has to assess and demarcate the area – Project manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary and inform ECC with GPS position – If needed, further investigation has to be requested for a professional assessment and the necessary protocols of the Chance Find Procedure have to be followed, – Archaeologist will evaluate the significance of the remains and identify appropriate action, (record and remove; relocate or leave premises, depending on the nature and value of the remains), – Inform the police if the remains are human,	

ASPECT	HERITAGE
	– Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed. – A 50 to 100 meter no go area (buffer) should added around the grave site on farms Onora and Rosalias and this should be clearly communicated to all employees and contractors.
Residual impact after mitigation	**Minor (4)**

7.1 POTENTIAL IMPACTS TO COMMUNITY

Table 11 – Potential impacts to community - assessment findings and the proposed mitigation measures

ASPECT	COMMUNITY	
Description of activity	– Drilling activities, resulting into dust emissions – Windblown dust from exposed/cleared land during exploration activities	
Description of impact	Visual disturbance and loss of Sense of Place.	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Adverse Direct Reversible Moderate Temporary Local Likely
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	– Position drill equipment in such a way that it is out of sight from human receptors – Apply dust suppression where possible – Restrict speed of vehicles (<30km/h) – Specific activities that may generate dust and impact on residents shall be avoided during high wind events	

ASPECT	COMMUNITY	
	– All vehicles and machinery / equipment to be shut down or throttled back between periods of use – Barriers or fences shall be used if drilling occurs in locations that may affect residents or livestock – Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property – Maintain good housekeeping – Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon	
Residual impact after mitigation	**Minor (4)**	
ASPECT	COMMUNITY	
Description of activity	Movement of vehicles, exploration activities	
Description of impact	Create conflict with farm owners about access, leaving gates open, suspicious movements, loss of farming area, etc.	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Adverse Indirect Reversible Minor Short term On-site Likely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Ensure documented permission to enter farm owners should have access to all farm areas at all times – Residents shall be provided at least two weeks' notice of drilling operations within 1 km of their property – Existing water points and feeding area need to be left unaffected – Use existing roads for access, avoid new tracks / cut lines, – Compliance with all applicable laws and agreements – Continuous engagement with residents to identify any concerns or issues, and mitigation and management measures agreed upon	

ASPECT	COMMUNITY	
Residual impact after mitigation	**Low (1)**	
ASPECT	COMMUNITY	
Description of activity	Movement of vehicles, exploration activities	
Description of impact	Presence of exploration team can be blamed for stock theft and poaching and could potentially impact farming activities.	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Adverse Cumulative Reversible Minor Temporary Local Possible
	Value of sensitivity	Medium
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Develop and implement an operation manual or procedures to work on farmlands and implement monitoring programmes thereafter – Ensure documented permission to enter farmlands is obtained from all relevant farm owners; – Continuously engage with neighbouring farmers concerning exploration schedules to ensure that farm activities (or tourism or hunting activities are not interrupted) – Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon – Ensure appropriate supervision of all activities – Raise awareness and sensitize employees about contentious issues such as stock theft and poaching – Accidents and incidents need to be reported to the project manager and recorded in the incident register	
Residual impact after mitigation	**Low (1)**	
ASPECT	COMMUNITY	
Description of activity	Exploration activities	

ASPECT	COMMUNITY	
Description of impact	Triggers job creation, skills development, and opportunities for the local economy.	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Beneficial Direct Reversible Minor Short term Local Likely
	Value of sensitivity	Low
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Maximize local employment – As far as possible promote local procurement – Enhance the development of local skills where possible	
Residual impact after mitigation	**Low Beneficial**	

8 ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed project is presented in Appendix A. It provides management options to ensure the impacts of the proposed project are minimised. An EMP is a tool used to take proactive action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary.

The management measures should be adhered to during all stages of the exploration activities. All persons involved and partaking in the proposed activities should be made aware of the measures outlined in the EMP to ensure activities are conducted in an environmentally responsible manner.
The objectives of the EMP are:

- To include all components of the development and operations of the project;
- To prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- To monitor and audit the performance of operational personnel in applying such controls; and
- To ensure that appropriate environmental training is provided to responsible operational personnel.

9 CONCLUSION

ECC's ESIA methodology was used to undertake the environmental assessment for the proposed exploration activities on EPL 5680, to identify if there is potential for significant effects to occur as a result of the proposed Project.

Through the scoping process, impacts with respect to airborne dust are expected to be limited to vehicular traffic (diamond drilling does not generate dust). There will be some release of exhaust fumes from machinery that will impact the immediate vicinity but will be of short duration. Additionally, there will be associated drilling and machinery noise, which could be a disturbance to immediate neighbours, but this will be of short duration as well. Through further analysis and identification of mitigation and management methods, the assessment concludes that the likely significance of effects on humans from the cumulative impacts of physical disturbance, noise, dust and emissions will be a temporary qualitative reduction in the sense of place and expected to be minor. Prior awareness and communication about the project shall be encouraged.

Due to the increased movements and presence of people, there is a potential that illegal and covert activities such as poaching, stock theft and the collection of organisms can be introduced to the area. Similarly, the potential of accidental veld fires may increase. In both cases, the terrestrial ecology and biodiversity of Namibia is the receptor, although local landowners and their neighbours may experience these adversities first-hand. Through this investigation, the significance of both impacts is indicated as moderate. In both cases, numerous mitigation measures, with proven national success, exist and were also applied to reduce the significance to minor.

All other social and environmental receptors were scoped out as significant effects were unlikely and therefore no further assessment was deemed necessary. Various best practices and mitigation measures have been identified to avoid and reduce effects as far as reasonably practical, as well as ensure the environment is protected and unforeseen effects and environmental disturbances are avoided.

REFERENCES

Bubenzer, O. (2002). Project E1 - Atlas of Namibia. [online] Available at: http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/e1_download_physical_geography_e.htm.

Institute for Health Metrics and Evaluation (IHME) 2016. Namibia- State of the nation's health: Findings from the global burden of disease. Seattle: IHME

IUCN 2022. The IUCN Red List of Threatened Species. Version 2022-1. <https://www.iucnredlist.org>.

Mannheimer, C. & Curtis B. (2009) Le Roux and Müller's Field Guide to the Trees and Shrubs of Namibia Macmillan Education, Windhoek, Namibia. 1039

Mendelshon, J., Jarvis, A., Roberts, C., & Robertson, T. (2002). Atlas of Namibia. A portrait of the land and its people. Cape Town: David Philip Publishers

Ministry of Health and Social Services (MoHSS) (2020). Diseases. Retrieved from www.mhss.gov.na

Ministry of Health and Social Services (MoHSS) [Namibi] and ICF Macro.2010. Namibia Health Facility Census 2009. Windhoek, Namibia. MoHSS and ICF Macro.

meteoblue. (2022). *Simulated historical climate & weather data for 20.03°S 17.45°E*. [online] Available at: https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/-20.034N17.447E [Accessed 31 May 2022].

MEAC/MEFT. 2020. National Strategy On Sustainable Heritage Tourism Development & Employment Creation Opportunities At Community Level. MEAC/MEFT, Windhoek.

Namibia Inter-censal Demographic Survey (2016). Report. Retrieved from https://cms.my.na/assets/documents/NIDS_2016.pdf

Namibia Statistics Agency (NSA). (2017). Namibia inter-censal demographic survey 2016 report. Windhoek: NSA

Namibia Statistics Agency (NSA). (2019). The Namibia labour force survey 2018 report. Windhoek: NSA

Stuart, C. and Stuart, M. (2015). Stuarts' field guide to mammals of southern Africa, including Angola, Zambia & Malawi. Cape Town: Struik Nature.

Ulrich Oberprieler and Burger Cillié (2008). The bird guide of Southern Africa. Pretoria: Game Parks Publishing.

World Health Organization (WHO) 2016. WHO country cooperation strategy 2010 – 2015 Namibia. Windhoek: WHO

World population review. (2020). Namibian Population 2020 retrieved from http://worldpopulationreview.com/countries/namibia-population/

APPENDIX A – ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX B – BACKGROUND INFORMATION DOCUMENT

APPENDIX C – PUBLIC PARTICIPATION

Dundee PRECIOUS METALS TSUMEB

RE-ADVERTISEMENT

EXPRESSION OF INTEREST

COURSE SILICA OR QUARTZ SUPPLY TO DUNDEE PRECIOUS METALS TSUMEB

Dundee Precious Metals Tsumeb (Pty) Ltd. invites all farmers and other interested parties such as geologists located in and around the Tsumeb area to express their interest in supplying coarse silica or quartz.

- Interested parties to note their location, potential monthly supply capacity and total resource lifespan.
- Silica can be supplied uncrushed, or if crushed, the size should be between 12 – 24 mm.
- Silica resource should be accessible by dump trucks.
- Pricing could be:
  - o Including or excluding crushing.
  - o Including or excluding transportation to DPMT site.
- Monthly requirement is 1,400 ton of 12-24mm crushed silica.
- If the silicon dioxide (SiO_2) is known, preference is for it to be >85%.
- All interested parties may be visited by an appointed geologist to assess silica technical qualities and mining possibilities, including confirmation of resource size.

Extended closing date: 09 September 2022
For further enquiries and submissions please email to:
d.rust@dundeeprecious.com
dundeeprecious.com

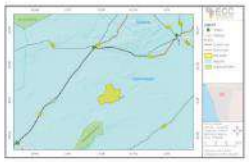
THE PROPOSED EXPLORATION ACTIVITIES ON EPL 5680 FOR BASE, RARE METALS AND PRECIOUS METALS AND INDUSTRIAL MINERALS, WITHIN THE OTJOZONDJUPA REGION, NAMIBIA.

YUCCA INVESTMENTS

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Yucca Investments One Hundred and Thirty CC
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Otjozondjupa Region, Namibia

Project: The proposed exploration project is located in the Grootfontein district accessible via farm tracks between Otjiwarongo and Otavi, Otjozondjupa Region, Namibia.



Proposed Activities: The Proponent, Yucca Investments Hundred and Thirty CC, intends to explore for base, rare metals and precious metals and industrial metals on EPL 5680. The proponent will conduct geological mapping, geochemical surveys, ground and airborne geo-physical surveys, geological sampling, percus-sion drilling, reverse circulation, and diamond drilling.

Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed Project and to allow registered Interested and Affected Parties (I&APs) to comment on the Background Information Document (BID) to ensure that all issues, and concerns are brought forward, captured and considered further in the assessment.

The registration period is effective from **24 August to 7 September 2022.** I&APs and stakeholders are re-quired to register for the Project at: https://eccenvironmental.com/download/the-proposed-exploration-activities-for-base-and-rare-metals-and-industrial-materials-and-precious-metals-on-epl-5680-otjozond-jupa-region-namibia/

The team at ECC will then maintain contact with all registered I&APs to keep them informed and engaged as the ESIA process develops. ECC will also provide registered I&APs relevant documents to review during the assessment process.

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Beyuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects
Project ID: ECC-135-401-ADT-03-D

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

FOCUS

The much anticipated **Medical Focus** will be available nationwide in the ***Republikein, Namibian Sun & Allgemeine Zeitung*** newspaper on **Tuesday, 20 September 2022.**

Book your space before 25 August 2022 to avoid any disappointments!

Contact us at focuseditions@synergi.com.na or 081 295 0385

8 Republikein Sun Allgemeine Zeitung **Market Watch** WEDNESDAY 31 AUGUST 2022

Republikein
Jou land. Jou taal. Jou koerant.

Nuus in Afrikaans

24 uur

7 dae 'n week

www.republikein.com.na

Namclear hereby invites appropriate qualified vendors for the **Supply, Implementation, and Commissioning of Access Control & CCTV Systems.**
The Terms of Reference (TOR) will be available as of **Friday, 02nd September 2022** at Namclear via email.

A signed NDA is required to allow you to purchase the document at a levy of N$500.00(non- refundable)
A clarification session will be held onsite on an appointment basis.
Interested parties must hand deliver their proposals to:
Namclear Rieks House
c/o Feld and Rieksvan der Walt Street Ausspannplatz
CLOSING DATE: Friday, 30 September 2022 at 12H00 PM
No faxed tenders will be accepted.
Namclear reserves the right to withdraw the expression of interest at any time without notifying any party and furthermore to negotiate with any of the prospective suppliers and is not bound to accept the lowest or any other proposal.
NB: Envelopes should be clearly marked:
"Supply, implementation and commissioning of Access Control & CCTV Systems"
ENQUIRIES: Mr. DunstonKawana Manager: ICT
Tel: (061) 375 277
E-mail: dkawanaDnamclear.com.na

AFRICA COMMERCIAL VEHICLES
Gallup Certified Clifton Strengths Coach Wanted
(based in Windhoek)

MAIN PURPOSE OF JOB
- To provide CliftonStrengths Coaching to staff members and extremal clients

KEY DUTIES AND RESPONSIBILITIES
- To conduct Gallup Certified CliftonStrengths coaching sessions with staff and departmental teams
- To ensure development of staff and teams
- To provide Gallup Certified CliftonStrengths training

QUALIFICATIONS AND EXPERIENCE
- Gallup Certified CliftonStrengths Coaching Certification
- A B.Comm Degree in Human Resource Management
- At least 4 years' coaching experience using Gallup's CliftonStrengths material and guidelines
- Relevant computer skills
- Should be able to develop new training programs based on CliftonStrengths

CANDIDATE PROFILE
- A self-starter who can take initiative and responsibility without supervision
- Good listening skills
- A strong communicator (oral and written)

The closing date for the application is:
25 September 2022

Please send CV to **cv@ecvnam.com**

Please note: Only short-listed candidates will be contacted

NOTICE

MEATCO ANNUAL GENERAL MEETING

Meatco Annual General Meeting scheduled for 30 September 2022

By virtue of Section 14 (8) of the Meat Corporation of Namibia Act, Act 1 of 2001, notice is hereby given to all registered members of the Meat Corporation of Namibia, that Meatco's combined 34th Annual General Meeting (AGM) will be held on Friday, 30 September 2022, at 09:00 in Otjiwarongo at C'est Si Bon Hotel.

Date: Friday, 30 September 2022
Time: 09:00
Venue: C'est Si Bon Hotel, Swembad Weg Road, Otjiwarongo

Submission of Motions
Deadline: 20 September 2022 at 12:00
A member can submit a motion to be included on the Agenda on or before the above indicated date and time.

Attention: The Chairperson – Mr. Adolf Murami
Email: chairperson@meatco.com.na
Hand-delivery: Meatco Head Office, 1 Sheffield Street, Northern Industrial Area, Windhoek

According to Section 14 of the Meatco Act, Act 1 of 2001, only registered Meatco members may attend and vote at the AGM.

By virtue of resolution 2019/06/21/12.2 passed at the 33rd AGM, in order to qualify for registration as a member of Meatco in terms of Section 17 (1) of the Meatco Act, a producer must at least sell one (1) unit of livestock to Meatco during the period immediately preceding the date on which his/her/its membership is to be determined, namely, three (3) years for members South of the Veterinary Cordon Fence (SVCF) and five (5) years for members North of the Veterinary Cordon Fence (NCA), respectively.

Accordingly, SVCF producers who were Meatco members as of 21 June 2016 and NCA producers who were Meatco members as of 21 June 2014 are eligible to register between 07:30 and 08:30 before the AGM starts.

MEATCO

THE PROPOSED EXPLORATION ACTIVITIES ON EPL 5680 FOR BASE, RARE METALS AND PRECIOUS METALS AND INDUSTRIAL MINERALS, WITHIN THE OTJOZONDJUPA REGION, NAMIBIA.

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Yucca Investments One Hundred and Thirty CC
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Otjozondjupa Region, Namibia

Project: The proposed exploration project is located in the Grootfontein district accessible via farm tracks between Otjiwarongo and Otavi, Otjozondjupa Region, Namibia.

Proposed Activities: The Proponent, Yucca Investments Hundred and Thirty CC, intends to explore for base, rare metals and precious metals and industrial metals on EPL 5680. The proponent will conduct geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, percussion drilling, reverse circulation, and diamond drilling.

Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed Project and to allow registered Interested and Affected Parties (I&APs) to comment on the Background Information Document (BID) to ensure that all issues, and concerns are brought forward, captured and considered further in the assessment.

The registration period is effective from **24 August to 7 September 2022.** I&APs and stakeholders are required to register for the Project at: https://eccenvironmental.com/download/the-proposed-exploration-activities-for-base-and-rare-metals-and-industrial-materials-and-precious-metals-on-epl-5680-otjozondjupa-region-namibia/

The team at ECC will then maintain contact with all registered I&APs to keep them informed and engaged as the ESIA process develops, ECC will also provide registered I&APs relevant documents to review during the assessment process.

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects
Project ID: ECC-135-401-ADT-03-D

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

On the road to see you

RFA Road Fund Administration
Funding roads, steering growth.

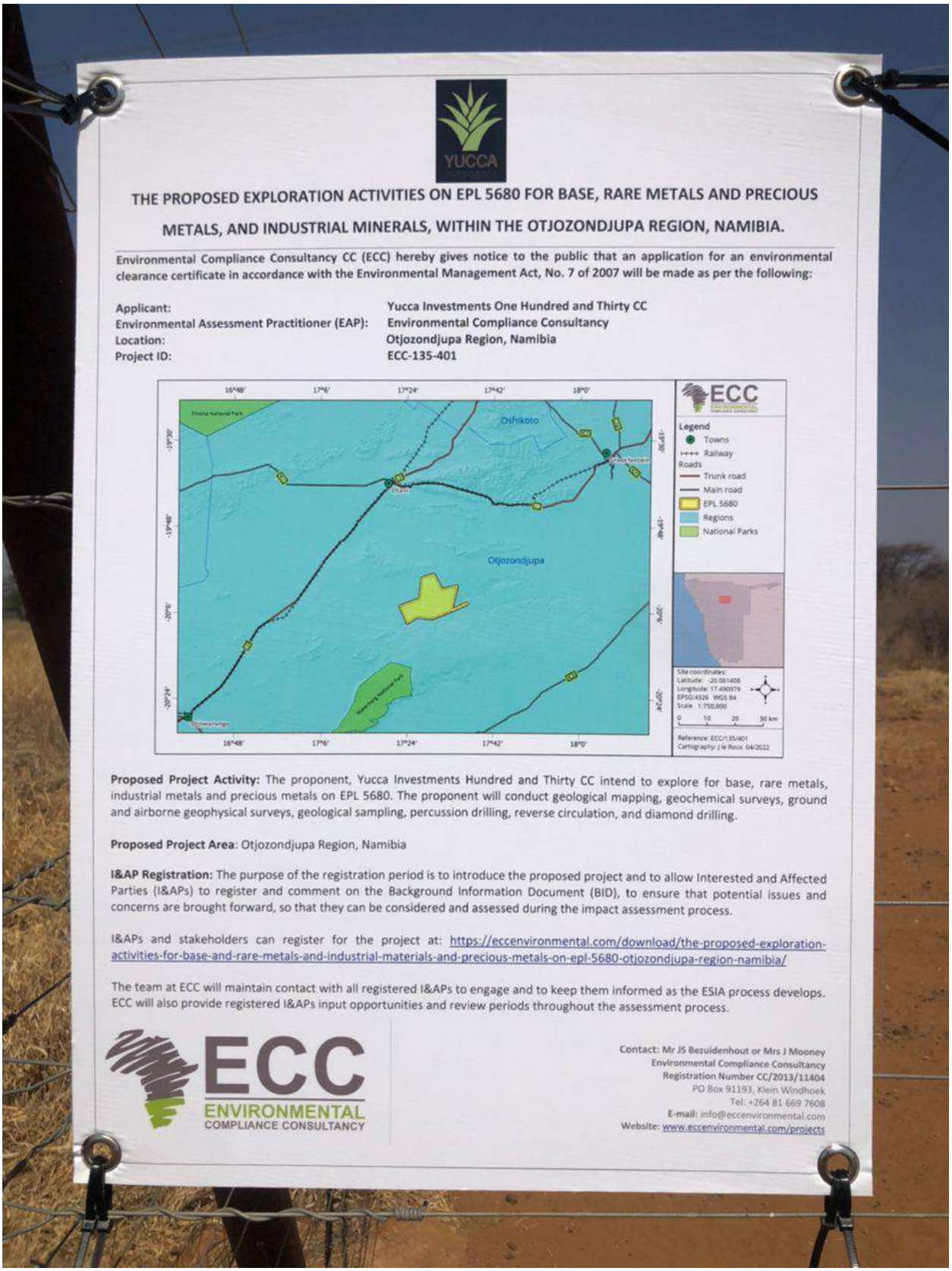
Join us at any of the trade shows as we engage our customers and the public on the various Road User Charges and bring you the following services:

- MDC pre-assessments
- MDC payments
- Issuing of logbooks

Pay your Road User Charges and help us fund the best roads in Africa!

Date	Event
26 August – 01 September 2022	Ongwediva Trade Fair
06 – 10 September 2022	Keetmanshoop Agricultural & Industrial Show
23 September – 01 October 2022	Windhoek Agricultural & Industrial Show

APPENDIX D - SITE NOTICES



YUCCA

THE PROPOSED EXPLORATION ACTIVITIES ON EPL 5680 FOR BASE, RARE METALS AND PRECIOUS METALS, AND INDUSTRIAL MINERALS, WITHIN THE OTJOZONDJUPA REGION, NAMIBIA.

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in accordance with the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant:	**Yucca Investments One Hundred and Thirty CC**
Environmental Assessment Practitioner (EAP):	**Environmental Compliance Consultancy**
Location:	**Otjozondjupa Region, Namibia**
Project ID:	**ECC-135-401**

Proposed Project Activity: The proponent, Yucca Investments Hundred and Thirty CC intend to explore for base, rare metals, industrial metals and precious metals on EPL 5680. The proponent will conduct geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, percussion drilling, reverse circulation, and diamond drilling.

Proposed Project Area: Otjozondjupa Region, Namibia

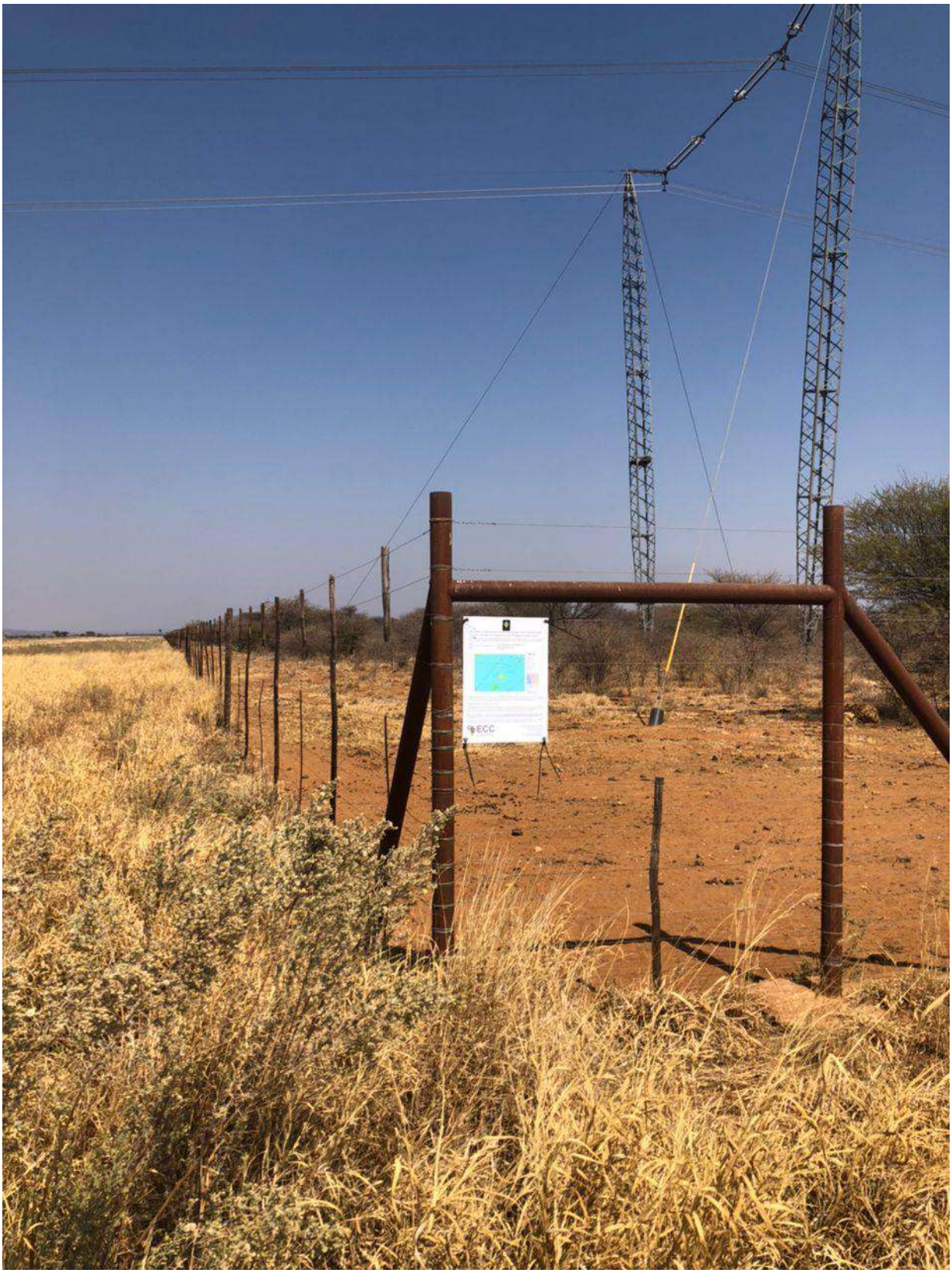
I&AP Registration: The purpose of the registration period is to introduce the proposed project and to allow Interested and Affected Parties (I&APs) to register and comment on the Background Information Document (BID), to ensure that potential issues and concerns are brought forward, so that they can be considered and assessed during the impact assessment process.

I&APs and stakeholders can register for the project at: https://eccenvironmental.com/download/the-proposed-exploration-activities-for-base-and-rare-metals-and-industrial-materials-and-precious-metals-on-epl-5680-otjozondjupa-region-namibia/

The team at ECC will maintain contact with all registered I&APs to engage and to keep them informed as the ESIA process develops. ECC will also provide registered I&APs input opportunities and review periods throughout the assessment process.

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

Contact: Mr JS Bezuidenhout or Mrs J Mooney
Environmental Compliance Consultancy
Registration Number CC/2013/11404
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects



Coordinates: -19.960860° S, 17.491292° E

APPENDIX E - STAKEHOLDER LETTER + COMMENTS

+264 81 669 7608
info@eccenvironmental.com
www.eccenvironmental.com

ECC Ref: ECC-135-401-LET-04-D
24 August 2022

Identified Stakeholder and Potentially Interested Party for:
The proposed exploration project is located in the Grootfontein district accessible via farm tracks between Otjiwarongo and Otavi, Otjozondjupa Region, Namibia.

Dear Sir or Madam:

RE: NOTIFICATION OF ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 5680 FOR BASE, RARE METALS AND PRECIOUS METALS AND INDUSTRIAL MINERALS, WITHIN THE OTJOZONDJUPA REGION, NAMIBIA.

Environmental Compliance Consultancy (ECC) has been contracted by Yucca Investments One Hundred and Thirty CC to conduct an environmental assessment and develop an environmental management plan (EMP) for the Project in terms of the Environmental Management Act, No. 7 of 2007.

This letter is intended to engage potentially Interested and Affected Parties (I&APs) for the project and provides a communication channel to ECC whilst the ESIA is ongoing. You have been identified as an interested or affected party and therefore ECC wishes to inform you of how you can interact with the ESIA.

The Proponent, Yucca Investments Hundred and Thirty CC, intends to explore for base, rare metals and precious metals and industrial metals on EPL 5680. The proponent will conduct geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, percussion drilling, reverse circulation, and diamond drilling.

Public participation is an important part of the ESIA process, as it allows the I&APs to obtain information about the proposed project and provide feedback. Communication with the I&APs occurs at various stages throughout a project lifecycle including:

- Advertising in newspapers; public notice boards (already done);
- Distributing a Background Information Document (BID) to identified I&APs; available online at (https://eccenvironmental.com/projects/)
- Registered I&APs will also be informed of the available draft scoping report for a review period, during which period I&APs will have the opportunity to review the draft document and raise any issues or concerns, and

ENVIRONMENTAL COMPLIANCE CONSULTANCY CC
PO BOX 91193 WINDHOEK, NAMIBIA
MEMBERS: J L MOONEY & JS BEZUIDENHOUT
REGISTRATION NUMBER: CC/2013/11404

- I&APs who wish to register as such must do so on the ECC website as per the link provided below: https://eccenvironmental.com/download/the-proposed-exploration-activities-for-base-and-rare-metals-and-industrial-materials-and-precious-metals-on-epl-5680-otjozondjupa-region-namibia/

If you are unable to complete the registration form online, please contact us via email for assistance. info@eccenvironmental.com

ECC values community input and participation in our projects and we look forward to working with you as the project develops.

Should you have any questions or require additional information please do not hesitate to contact either of us.

Yours sincerely,

Stephan Bezuidenhout
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: info@eccenvironmental.com

Jessica Bezuidenhout Mooney

ENVIRONMENTAL COMPLIANCE CONSULTANCY CC
PO BOX 91193 WINDHOEK, NAMIBIA
MEMBERS: J L MOONEY & JS BEZUIDENHOUT
REGISTRATION NUMBER: CC/2013/11404

PUBLIC COMMENTS	FARM NAME AND INFOFRMATION	NAME	ECC RESPONSE
BID REVIEW			
Note that as per publicly available information this EPL licence expired november 2021. **We have previously dealt with Yucca Investments, its owner Abius Akwaake and his appointed geologist Matthews Nakalemo. All parties are aware that in order to gain access to our land we need to be furnished with a valid EPL and there must be a contract between the land owner and yourselves stipulating, in detail, the conditions of access and the work that is to be carried out. The previous contract also expired in November 2021.** **You cooperation in ensuring that the above is in order bevor any visit or physical work is being done on the land will be appreciated**	**Farm Rotenfels and Eckberg.**	**Ralph Ellinger,** **rellinger@cymot.com**	**Dear mr Ralph Ellinger,** **Thank you for registering as an interested and affected party for the proposed exploration activities on EPL 5680. We highly acknowledge your key points and inputs as raised.** **The proponent applied for a renewal of the epl and thus an environmental clearance certificate (ECC) is required in terms of the environmental management act no.7 of 2007. The ECC in particular is in application and once that has been granted, a new land access contract between the landowners and the proponent will be entered into prior to any commencement of any physical work.** **Once more, thanks for your comments and we look forward to working with you and all concerned farmers as the ecc process progresses.**
SCOPING REORT AND EMP PUBLIC REVIEW			
Trophy hunting as Namibia Safari Corporation, and lodging **Operation of Spa and Wellness Centre** **Operation of Campsites** **As a farmer and owner of the businesses as stated, I wish to object against**	**Farm Borodino, Farm Piksteel, Farm Koireb, Namibia Safari Corporation, Stofpad Kampterrein en Restaurant, Panach Wellness Centre and Spa**	**Jacobus Schalk van der Merwe** **jaco@jsvdm.com** **0811270906 or 0811481485**	**Dear Jacobus Schalk van der Merwe,** **Thank you for your email.** **ECC has captured your valuable comments and inputs towards the**

geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, rotary air blast (RAB), reverse circulation (RC), and diamond drilling on my properties, and also on the properties of my direct neighbours, since it will make it impossible for my business to continue, due to the nature of my business, it includes shooting with life ammunition, it can cause the injury or death of people entering and using the property. **As far as the camping and wellness activities, any disturbances of the area, entry of people or people walking around will have a devastating effect on business**	**Farm Borodino, #179. PO Box 336** **Windhoek District,** **Windhoek 9000**		**Project and further confirms your registration as an IAP for the proposed exploration activities on EPL 7973 (Correction – EPL 5680). All comments received will be addressed in the reports that will be shared with you for review and commentary in accordance with the Environmental Management Act No.7 of 2007. All Project updates will be shared with you.** **On Fri, Oct 28, 2022 at 12:45 PM Jacobus Schalk van der Merwe <jaco@jsvdm.com> wrote:** **The following I&AP submission has been made on the ECC website:** **Project: The proposed exploration activities for base and rare metals and industrial materials and precious metals on EPL 5680, Otjozondjupa Region, Namibia** **Project Name** **The proposed exploration activities for base and rare metals and industrial materials and precious metals on EPL 5680, Otjozondjupa Region, Namibia** **Name** **Jacobus Schalk van der Merwe** **Company / Organisation** **Farm Borodino, Farm Piksteel, Farm Koireb, Namibia Safari**

			Corporation, Stofpad Kampterrein en Restaurant, Panach Wellness Centre and Spa **Nature of company or organisation** **Farming** **Trophy hunting** **Camping** **Wellness programs** **Email Address** **jaco@jsvdm.com** **Telephone No.** **0811270906 or 0811481485** **Address** **Farm Borodino, #179. PO Box 336** **Windhoek District,** **Windhoek 9000** **Namibia** **Map It** **Declaration of Interest** **Trophy hunting as Namibia Safari Corporation, and lodging** **Operation of Spa and Wellness Centre** **Operation of Campsites** **Comments** **As a farmer and owner of the businesses as stated, I wish to object against geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, rotary air blast (RAB),**

			reverse circulation (RC), and diamond drilling on my properties, and also on the properties of my direct neighbours, since it will make it impossible for my business to continue, due to the nature of my business, it includes shooting with life ammunition, it can cause the injury or death of people entering and using the property. **As far as the camping and wellness activities, any disturbances of the area, entry of people or people walking around will have a devastating effect on business** **On behalf of our team, many thanks.**

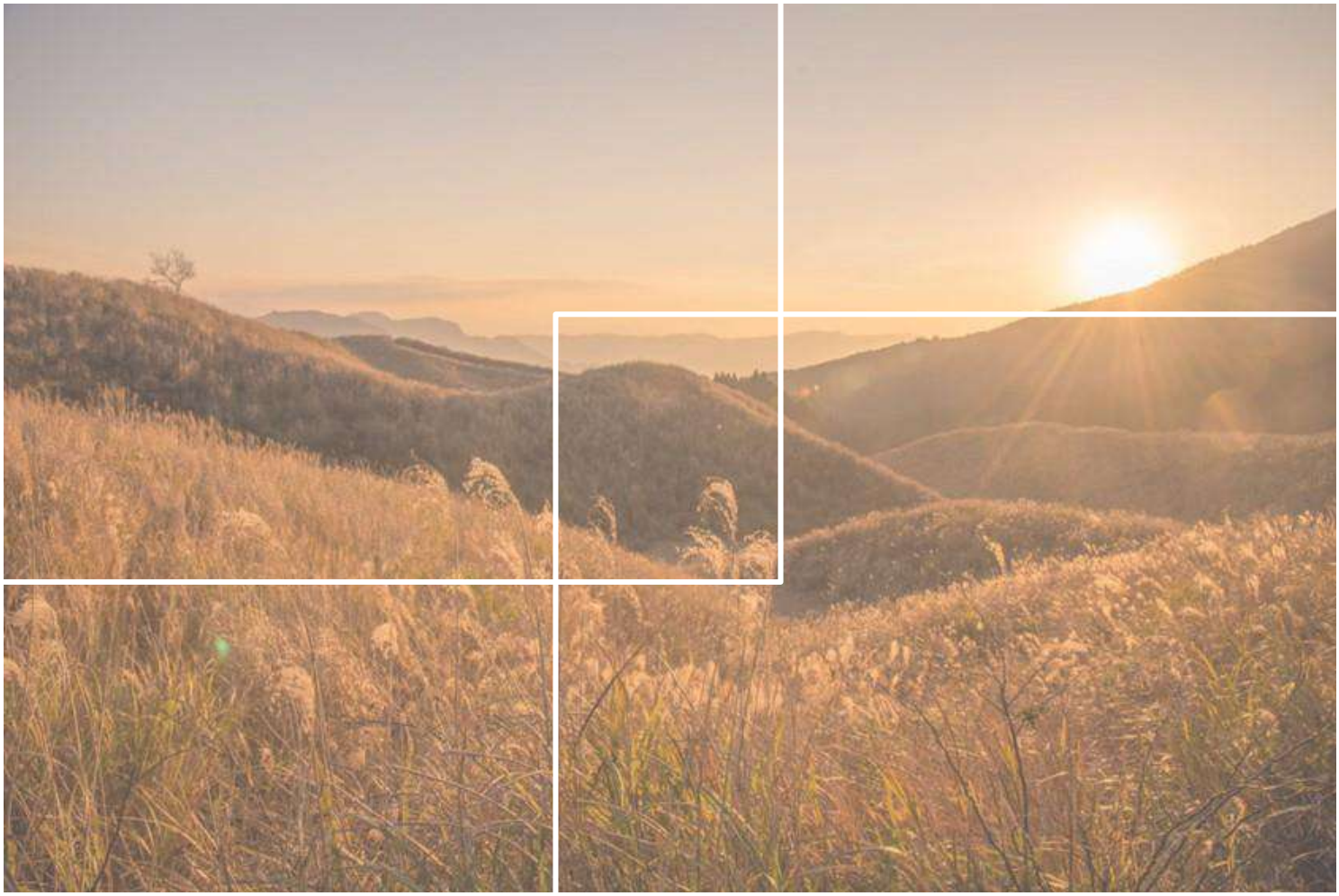
APPENDIX F – EAP CVS

APPENDIX G – NBRI LIST

SPECIES	ENDEMISM	PROTECTED	IUCN1	IUCN2
Acacia ataxacantha DC.				
Acacia fleckii Schinz				
Acacia tortilis (Forssk.) Hayne subsp. heteracantha (Burch.) Brenan				
Ancylanthos rubiginosus Desf.				
Andropogon eucomus Nees				
Andropogon gayanus Kunth var. polycladus (Hack.) Clayton				
Antiphiona pinnatisecta (S.Moore) Merxm.	Endemic			
Aristida stipitata Hack. subsp. graciliflora (Pilg.) Melderis				
Asparagus pearsonii Kies				
Blepharis gigantea Oberm.	Endemic			
Blepharis integrifolia (L.f.) E.Mey. ex Schinz var. integrifolia				
Bolusia amboensis (Schinz) Harms	Near Endemic			
Cardiospermum halicacabum L. var. halicacabum				
Cenchrus ciliaris L.				
Ceropegia lugardiae N.E.Br.		Protected		
Chamaecrista absus (L.) H.S.Irwin & Barneby				
Combretum psidioides Welw. subsp. dinteri (Schinz) Exell				
Commiphora angolensis Engl.				
Crassula tabularis Dinter				
Croton gratissimus Burch. var. gratissimus				
Cucumis anguria L. var. longaculeatus J.H.Kirkbr.				
Cymbopogon pospischilii (K.Schum.) C.E.Hubb.				
Cynodon dactylon (L.) Pers.				
Cyperus amabilis Vahl				
Dactyloctenium aegyptium (L.) Willd.				
Digitaria seriata Stapf				
Diheteropogon filifolius (Nees) Clayton				
Duvalia polita N.E.Br. var. parviflora (L.Bolus) A.C.White & B.Sloane				
Eleusine coracana (L.) Gaertn. subsp. africana (Kenn.-O'Byrne) Hilu & De Wet				
Eleusine indica (L.) Gaertn.				
Eragrostis pallens Hack.				
Eragrostis pilgeriana Dinter ex Pilg.				
Eragrostis trichophora Coss. & Durieu				
Eriospermum roseum Schinz				
Euphorbia austro-occidentalis Thell.				
Euphorbia crotonoides Boiss. subsp. crotonoides				
Euphorbia hirta L.				
Ficus sycomorus L. subsp. gnaphalocarpa (Miq.) C.C.Berg				
Gnidia polycephala (C.A.Mey.) Gilg				
Gymnosporia maranguensis (Loes.) Loes.				
Helichrysum herniarioides DC.				

SPECIES	ENDEMISM	PROTECTED	IUCN1	IUCN2
Heteropogon contortus (L.) Roem. & Schult.				
Hibiscus fleckii Gürke	Endemic			
Hibiscus mutatus N.E.Br.				
Hirpicium gazanioides (Harv.) Roessler				
Indigofera daleoides Benth. ex Harv. var. daleoides				
Indigofera sordida Benth. ex Harv.				
Ipomoea chloroneura Hallier f.				
Ipomoea obscura (L.) Ker Gawl. var. obscura				
Kyllinga alba Nees				
Lapeirousia odoratissima Baker				
Lightfootia dinteri Engl. ex Dinter				
Limeum pterocarpum (J.Gay) Heimerl var. pterocarpum				
Lycium cinereum Thunb.				
Mariscus chersinus N.E.Br.				
Mariscus laxiflorus Turrill				
Melhania burchellii DC.				
Monsonia angustifolia E.Mey. ex A.Rich.				
Orbea lugardii (N.E.Br.) Bruyns	Near Endemic	Protected		
Oropetium capense Stapf				
Osteospermum muricatum E.Mey. ex DC. subsp. longiradiatum Norl.				
Panicum kalaharense Mez				
Pavonia clathrata Mast.				
Pegolettia senegalensis Cass.				
Pentatrichia rehmii (Merxm.) Merxm. subsp. avasmontana (Merxm.) Klaassen & Kwembeya	Endemic			
Phyllanthus omahakensis Dinter & Pax				
Portulaca quadrifida L.				
Pouzolzia mixta Solms				
Rennera eenii (S.Moore) Källersjö	Endemic			Near Threatened
Rhigozum brevispinosum Kuntze				
Seddera schizantha Hallier f.				
Sesamum triphyllum Welw. ex Asch. var. triphyllum				
Stapelia schinzii A.Berger & Schltr. var. schinzii	Endemic	Protected		
Stipagrostis hirtigluma (Steud. ex Trin. & Rupr.) De Winter subsp. hirtigluma				
Stipagrostis hirtigluma (Steud. ex Trin. & Rupr.) De Winter subsp. patula (Hack.) De Winter				
Syncolostemon bracteosus (Benth.) D.F. Otieno				
Tavaresia barklyi (Dyer) N.E.Br.		Protected		
Tephrosia purpurea (L.) Pers. subsp. leptostachya (DC.) Brummitt var. leptostachya				
Tragus racemosus (L.) All.				
Tricholaena monachne (Trin.) Stapf & C.E.Hubb.				
Triraphis schinzii Hack.				

SPECIES	ENDEMISM	PROTECTED	IUCN1	IUCN2
Urochloa oligotricha (Fig. & De Not.) Henrard				
Zornia glochidiata Rchb. ex DC.				
Zornia milneana Mohlenbr.				



Submitted to: Yucca Investments One Hundred and Thirty CC
Attention: Abius Ndadi Akwaake
P O Box 2269
Ausspannplatz
Windhoek

REPORT:

EXPLORATION ACTIVITIES ON EPL 5680 – ENVIRONMENTAL MANAGEMENT PLAN

PROJECT NUMBER: ECC-135-401-REP-07-D

REPORT VERSION: REV 01

DATE: 8 NOVEMBER 2022

Prepared by: ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

TITLE AND APPROVAL PAGE

Project Name:	Exploration activities on EPL 5680 – Environmental Management Plan
Client Company Name:	Yucca Investments One Hundred and Thirty CC
Client Name:	Abius Ndadi Akwaake
Ministry Reference:	221011000061
Authors:	Monique Jarrett, Diaan Hoffman and Jessica Bezuidenhout
Status of Report:	Final Submitted to MEFT and MME/Rev 01
Project Number:	ECC-135-401-REP-07-D
Date of issue:	8 November 2022
Review Period	N/A

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DISCLAIMER

Environmental Compliance Consultancy (ECC) (Reg. No. CC 2013/11401) has prepared this report on behalf of the Proponent. This report has been authored by employees of ECC, who have no material interest in the outcome of this report, nor do any of the ECC team have any interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this report. ECC is independent from the Proponent and has no vested or financial interest in the Project, except for fair remuneration for professional fees rendered which are based upon agreed commercial rates. Payment of these fees is in no way contingent on the results of this report or the assessment, or a record of decision issued by Government. No member or employee of ECC is, or is intending to be, a director, officer, or any other direct employee of the Proponent. No member or employee of ECC has, or has had, any shareholding in the Project. Any personal views or opinions expressed by the writer may not necessarily reflect the views or opinions of Environmental Compliance Consultancy or its client.

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DEFINITIONS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
DEA	Department of Environmental Affairs
ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EPL	Exploration Prospecting Licence
GPS	Global Positioning System
HR	Human Resources
HSE	Health, Safety and Environmental
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
NHC	National Heritage Council
PPE	Personal Protective Equipment
SOPs	Standard Operating Procedures
ToR	Terms of Reference

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Environmental Compliance Consultancy (ECC) has been retained by Yucca Investments One Hundred and Thirty CC (Hereinafter referred to as 'The Proponent', to undertake an environmental and social impact assessment (ESIA) and prepare an Environmental Management Plan (EMP) in terms of the Environmental Management Act, No 7 of 2007 and its regulations of 2012. An environmental clearance application will be submitted to the relevant competent authorities and the Ministry of Environment, Forestry and Tourism (MEFT) for a record of decision.

The Proponent has obtained a preparedness to grant in 2014 for the EPL from MME and is currently pending renewal on receipt of the ECC.

The Namibian registered company propose to undertake the exploration of gold on the Exclusive Prospecting Licence (EPL) 5680, located about 37km south of Otavi, (Hereinafter referred to as 'The Project') over the Swakop Group and Waterberg Basin.

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

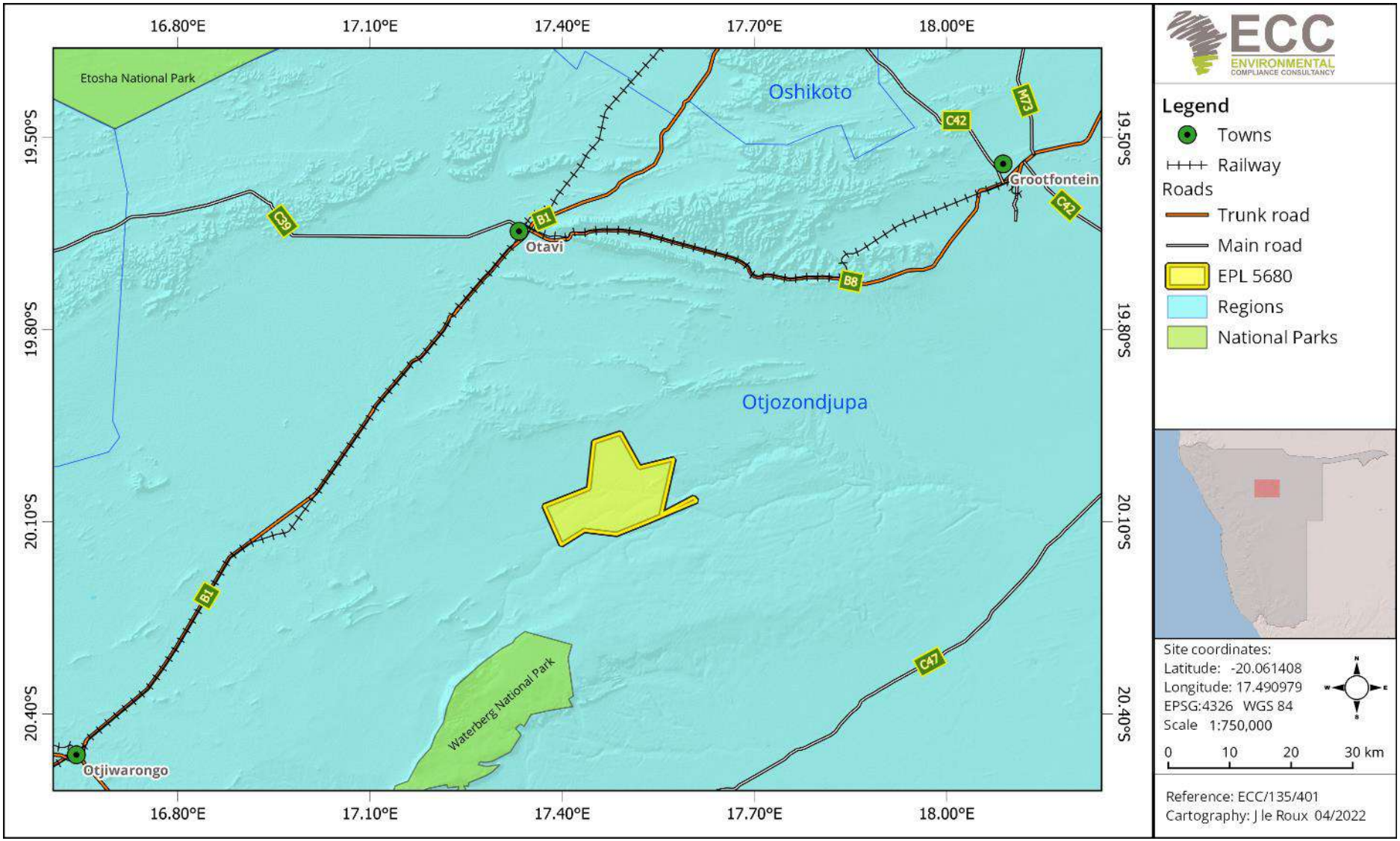

Figure 1: Locality map showing the location of the proposed exploration activities on EPL 5680

1.2 ENVIRONMENTAL REGULATORY REQUIREMENTS

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

This report presents the EMP and has been undertaken in terms of the requirements of the Environmental Management Act, 2007 and its Regulations.

1.3 PURPOSE AND SCOPE OF THIS REPORT

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

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

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

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

1.4 MANAGEMENT OF THIS EMP

The Proponent, will hold the environmental clearance certificate for the proposed project and will be responsible for the implementation and management of this EMP. Before the expansion activities commence, this EMP will be reviewed, amended as required and approved ready for implementation. The implementation and management of this EMP, and thus the monitoring of compliance, will be undertaken through daily duties and activities, as well as monthly inspections.

1.5 LIMITATIONS, UNCERTAINTIES, AND ASSUMPTIONS RELATED TO THIS EMP

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

Where there is any conflict between the provisions of this EMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project approval conditions, permits, standards, guidelines, and relevant laws), the contract should be amended, and statutory requirements are to take precedence.

The information contained in this EMP has been based on the project description as provided in the EIA report. Where the design or construction methods is different, this EMP may require updating and potential further assessment may be undertaken.

1.6 ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Compliance Consultancy (ECC) (Reg. No. CC 2013/11401) has prepared this preliminary EMP on behalf of the proponent.

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

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

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2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

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

2.1 OBJECTIVES AND TARGETS

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

Environmental objectives for the Project are as follows:

- Zero pollution incidents;
- Minimal vegetation clearing and earthworks;
- Minimal impact on regional groundwater users;
- Protect local flora and fauna, and
- Use natural resources effectively and efficiently.

2.2 ORGANISATIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

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

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

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

Table 1 - Roles and responsibilities

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

ROLE	RESPONSIBILITIES AND DUTIES
	– Check the implementation of corrective action for incidents and complaints. – Ensure all environmental monitoring and reporting is done. – Conduct environmental monitoring, audits and inspections, and – Compile draft environmental reports.
Employees	– Adhere to measures set out in the EMP. – Ensure they have undertaken a site induction. – Report any operations or conditions which deviate from the EMP as well as any non-compliant issues or accidents to the environmental manager.

2.3 CONTRACTORS

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

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

2.4 EMPLOYMENT

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

- In liaison with local government and community authorities, the Proponent shall ensure that local people have access to information about job opportunities and are considered first for construction/maintenance contract employment positions.
- The number of job opportunities shall be made known together with the associated skills and qualifications to the locals in the area.
- The maximum length of time the job is likely to last for shall be indicated.
- Foreign workers with will be hired and the proponent shall ensure that they have a valid work permit at all times.
- Every effort shall be made to recruit from the group of unemployed workers living in the surrounding area for positions that require unskilled work.

2.5 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

An environmental review of the proposed Project has been completed to identify all the commitments and agreements made. A list of environmental commitments and risks has been produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment during the expansion phase.

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

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

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Access and site preparation	Disruption of farmland operations	– Compliance with all applicable laws and agreements.	– OHSE Audits and inspections. – Daily	– HSE appointed person /Environmental manager – Exploration manager
	Conflict with farm owners and neighbours	– Ensure documented permission to enter farmlands is obtained from relevant farm owners; – Farm owners should have access to all farms areas at all times; – Existing water points and feeding areas need to be left unaffected, unless otherwise agreed with farm owners; – Continuously engage with neighbouring farmers concerning exploration schedules to ensure that farm activities (or tourism or hunting activities are not interrupted); – Use existing roads for access to avoid new tracks as far as practicable and create cut lines with due regard to existing land use activities in the area; – Ensure appropriate supervision of all activities; – Develop and implement an operation manual or procedures to work on farmlands and implement monitoring programmes thereafter; – Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon and	– OHSE Audits and inspections. – Daily	– Exploration manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– Accidents and incidents need to be reported to the exploration manager and recorded in an incident register.		
	Limiting access to sites	– Compliance with all applicable laws and agreements.	– OHSE Audits and inspections. – Daily	– Exploration manager – HSE appointed person /Environmental manager
	Potential damage to cultural heritage sites	– Implement a Chance Find Procedure; – Raise awareness about possible heritage finds; – Report all finds that could be of heritage importance; – In case archaeological remains are uncovered, cease activities and the exploration manager has to assess and demarcate the area; – Exploration manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary and inform ECC with GPS position; – If needed, further investigation has to be requested for a professional assessment and the necessary protocols of the Chance Find Procedure have to be followed; – Archaeologist will evaluate the significance of the remains and identify appropriate action, for example, record and remove; relocate or leave premises (depending on the nature and value of the remains); – Inform the police if the remains are human and – Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.	– Chance finds procedure and records	– Exploration Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		– A 50 to 100 meter no go area (buffer) should added around the grave site on farm farms Onora and Rosalia and this should be clearly communicated to all employees and contractors.		
Socio-economic	Job creation for locals	– Maximise local employment and local business opportunities and – Enhance the use of local labour and local skills as far as reasonably possible.	– HR recruitment policies and procedures	– HR Manager
	Presence of exploration team can be blamed for stock theft and poaching and could potentially impact farming activities.	– Ensure documented permission to enter farmlands is obtained from all relevant farm owners; – Continuously engage with neighbouring farmers concerning exploration schedules to ensure that farm activities (or tourism or hunting activities are not interrupted); – Training and raise awareness to sensitize employees about contentious issues such as stock theft and poaching; – Ensure appropriate supervision of all activities and – Raise awareness and sensitize employees about contentious issues such as stock theft and poaching.	– HR recruitment policies and procedures	– HR Manager
Groundwater	Groundwater quality	– Good housekeeping; – Training through toolbox talks and induction; – Ensure drill pads and spill kits are in place; – All vehicles and machinery undergoing maintenance must have drip trays to collect leakages of lubricants and oil;	– OHSE Audits and inspections. – Daily	– Exploration Manager – HSE appointed person /Environmental manager

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

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

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

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	Risk of spillage of hydrocarbons, chemicals or other dangerous goods/material	– Tailings, chemical and hydrocarbon spillages from trucks, conveyors and pipelines will be cleaned up timeously in order to prevent contamination. – Fuel and chemicals are handled with care; – Spill kits to be at designated areas across the site or available for use during refuelling, fuel/chemical delivery or use. Absorption material should be available and at hand. Where sawdust is used it should be cleaned up immediately and not left for long periods as this poses a fire hazard; – Equipment to be well maintained and serviced regularly and documented proof kept and – A funnel should be available and used to avoid spillage.	– Daily visual inspections – Pre-start checklists on all machines – Incident records management.	– Exploration Manager
	Noise and vibration impact	– Minimize noise generating activities at night, by ensuring noisy activities are avoided especially at night; – Ensure appropriate measures are put in place to rectify noise and vibration complaints, should they occur; – Scheduling of works to avoid disturbance between the hours of 7 pm and 5 am, unless night operations unavoidable; – Procedures for receiving complaints from nearby land users or residents to be in place and mitigation measures to be implemented should construction	– Noise and vibrational monitoring – Pre-start checklists on all machines	– Exploration Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		and exploration generate excessive noise and vibration. – Drill equipment shall be suitably positioned to ensure that noisy equipment is away from receptors; – Residents shall be provided at least two weeks' notice of drilling operations within 1 km of their property and – All equipment to be shut down or throttled back between periods of use		
	Waste generation and litter	– Implement the waste management hierarchy across site: Avoid, reuse, recycle, then disposal through burning or dump; – Waste shall be collected and shall be removed on a regular basis to avoid pests and bad odours; – It is unlikely that hazardous material and wastes will be produced, however in the event that they do, they shall be managed in a safe and responsible manner so as to prevent contamination of soils, pollution of water and/or harm to people or animals as a result of the use of these materials. Proof of waste disposal certificates should be kept on file and – Hazardous and non-hazardous waste shall be stored separately at all times.	– OHSE Audits and inspections; – Waste management inspections, – Safe disposal certificates	– HSE appointed person/Environmental Manager
Soil quality	Soil contamination due to mixing of earth matter, trampling, compaction and pollution,	– Equipment must be in a good condition to ensure that accidental oil spills do not occur and contaminate soil. – During drilling plastic liners to be placed underneath rigs to avoid environmental contamination and oil	– Pre-start checklists on all machines	– Exploration Manager – Environmental Manager

RECEPTORS	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		absorbent matting should be available in the event of spillage; – Limit the possibility of compaction and creating of a hard subsurface; – Limit the possibility of trampling; – In the event of spills and leaks, polluted soils must be collected and disposed of at an approved site and – Limit the possibility to mix mineral waste with topsoil.		
	Soil erosion	– Where necessary, install diversions to curb possible erosion; – Restore drainage lines when disturbed and – Topsoil should be stockpiled separately, and re-spread during rehabilitation.	– OHSE Audits and inspections;	– Environmental Manager
Air quality	Increased dust levels	– All vehicles and machinery / equipment to be shut down or throttled back between periods of use; – Use existing access roads and tracks where possible; – Apply dust suppression where possible and – Restrict speed of vehicles (<30km/h) on farm roads, close to farmhouses or livestock pens/enclosure. – Specific activities that may generate dust and impact on residents shall be avoided during high wind events.	– Dust fallout monitoring	– Environmental Manager
Visual	Visual disturbances	– Position drill equipment in such a way that it is out of sight from human receptors, where practicable; – Barriers or fences around drill sites mandatory to avoid human or animal impacts; – Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property; – Maintain good housekeeping;	– Daily observations	– Exploration Manager

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

3 ENVIRONMENTAL MANAGEMENT PRINCIPLES

3.1 CONTINUAL IMPROVEMENT

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

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

3.2 BEST PRACTICE

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

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

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

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

3.3 ENVIRONMENTAL MONITORING

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

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

The monitoring program comprises:

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

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

4 COMMUNICATION AND TRAINING

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

4.1 COMMUNICATIONS

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

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

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

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

4.2 ENVIRONMENTAL EMERGENCY AND RESPONSE

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

Table 4 – Emergency Contact details

TOWN	AMBULANCE	POLICE	FIRE BRIGADE
Otjiwarongo	+264 (67) 30 3734	+264 (67) 1 0111	+264 (67) 30 4444
Otavi	+264 (67) 23-4194	+264 (67) 23-4006	-

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

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

4.3 COMPLAINTS HANDLING AND RECORDING

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

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

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

- Inform the site manager of issues, concerns, or complaints.
- The site manager must maintain a complaint register that required details of the complaint

- The exploration manager will provide a written response to the complainant of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register

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

4.4 TRAINING AND AWARENESS

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

4.5 SITE INDUCTION

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

The site induction should include, but is not limited to the following:
A general site-specific induction that outlines:

- What is meant by “environment” and the EMP?
- Why the environment needs to be protected and conserved?
- How can exploration activities impact the environment?
- What can be done to mitigate against impacts?
- The inductee's role and responsibilities concerning implementing the EMP
- The site’s environmental rules
- Details of how to deal with, and who to contact should any environmental problems occur
- Basic vegetation clearing principals and species ID sheets
- The potential consequences of non-compliance with this EMP and relevant statutory requirements, and
- The role of responsible people for the Project.

5 INCIDENT REPORTING

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

5.1 MINOR INCIDENT OR "NEAR MISS"

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

1) Orally reported to the manager or the manager's nominated representative:
   A. Immediately and without delay
   B. Regardless of whether or not injury to personnel has occurred
   C. Or property or equipment has been damaged.
2) Written up and handed to the manager or the manager's nominated representative by the end of the shift. The written report should:
   A. State all known facts and conditions at the time of the incident and
   B. Includes a preliminary assessment of the most likely potential consequences of the incident under the current circumstances.

5.2 SERIOUS INCIDENT

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

5.3 INCIDENT REPORT AND CLOSEOUT

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

6 COMPLIANCE AND ENFORCEMENT

6.1 ENVIRONMENTAL INSPECTIONS AND COMPLIANCE MONITORING

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

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

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

6.2 REPORTING

Reports shall be submitted to the Mining Commissioner in terms of the Minerals (Mining and Prospecting) Act, No. 33 of 1992.

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

6.3 NON- COMPLIANCE

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

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

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

- The site manager and or contractor fail to respond to complaints from the public.

Activities shall be stopped in the event of non-compliance until corrective action(s) have been completed.

6.4 DISCIPLINARY ACTION

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

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

The disciplinary action shall be determined according to the nature and extent of the transgression / non-compliance, and penalties are to be weighed against the severity of the incident.

7 GROUNDWATER MANAGEMENT PLAN

7.1 INTRODUCTION

Chemical and waste spills must be contained, so as not to contaminate the soil or groundwater. Any contact with groundwater must be treated with exceptional care and reported immediately, to minimize the potential for contamination of an aquifer. It is important to limit the potential for wastewater seepage to groundwater.

This groundwater management plan outlines appropriate groundwater water management measures, monitoring programs and reporting procedures to be implemented.

7.2 OBJECTIVES

This groundwater management plan has been prepared to minimise potential impacts on groundwater resulting from the exploration activities. It is important to report any contact with or contamination of groundwater to the environmental coordinator or site manager as soon as possible.

7.3 RESPONSIBILITIES

WORKFORCE AND ALL CONTRACTORS
Required to take all reasonable measures to prevent the discharge of sediments and pollutants from the site into groundwater sources. Report any contact with groundwater to the environmental coordinator.

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

7.4 GROUNDWATER MANAGEMENT MEASURES

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

- Chemical spills
- Refuelling
- Poor resource stewardship practices.

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

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

Table 5 - Water Quality Mitigation Measures

Responsibility	– Exploration Manager – Employees
Potential issues or impacts	– Groundwater contamination due to incidental hydrocarbon spills – Change in the water table
Protection of groundwater	Where the water table is penetrated by drilling and the water flows out onto the surface, a furrow needs to be dug that diverts the water to vegetation if water is deemed uncontaminated
	All boreholes should be capped and labelled. In the instances where water is encountered the water should be sampled and tested and the local farm owners be made aware thereof
	Water saving measures should be applicable at all times. No taps or pipes left to run, leaks to be detected immediately. Vehicles only to be washed with buckets, not running water
Sewage and grey water from temporary portable toilets on site	Chemical toilets should be provided, and the veld should not be used as an alternative
	If grey water can be collected from ablution facilities at the campsite it should be recycled and: o Used for dust suppression o Used to clean equipment
Lowering of the groundwater levels	1. To maximise the re-use of water during operational phases in order to minimise the use of clean water no matter the source 2. Extraction volumes of water shall be minimal during exploration and where possible, water from existing water sources shall be used 3. Use water effectively and efficiently by following the reduce-recycle-reuse approach

	4. Record volumes of abstraction and supply 5. A site-wide water balance will be kept and updated on a regular basis
Inefficient use of water resources	1. To ensure compliance with all legal obligations 2. Refuelling shall be undertaken in a designated area 3. All vehicles and machinery undergoing maintenance must have drip trays to collect leakages of lubricants and oil during any field repairs or emergency maintenance 4. In the event of pollution, polluted soils must be collected and disposed of at an approved site 5. A 'good housekeeping' policy shall be adopted across the exploration area
Any hazardous fluid or lubricating chemicals used could enter the aquifer environment causing pollution	1. The contractors' laydown areas are to be surfaced and will drain to a sump with silt traps and hydrocarbon collectors 2. All chemicals, bulk fuels, oils and grease and any other hazardous substance, will be stored and handled as per all applicable legislation and national standards 3. Portable chemical toilets will be provided during the exploration phase. They will be routinely cleaned, and sewage disposed of at a licenced sewage treatment plant with the safe disposal certificate to be provided
Monitoring requirements	1. Take borehole water level at the start of exploration and at the end of exploration operations. 2. Keep the records. 3. Monitor the use of water and keep records of daily requirements.

7.5 GROUNDWATER QUALITY MONITORING

Every effort must be made throughout to preserve the quality of groundwater sources that the Proponent may impact. Containment of waste and chemicals and the correct disposal thereof must be of an acceptable standard. Personnel must report any unusual conditions and intersections with groundwater immediately to the environmental manager.

The Department of Water Affairs require quarterly reporting for water levels and quality of water from the sources for which a permit was required, namely, abstraction permits and discharge permits:

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

8 WASTE MANAGEMENT PROGRAMME

8.1 INTRODUCTION

The exploration activities will generate both solid and liquid waste. The types of waste generated at the facility are classified as mineral and non-mineral waste. All non-mineral waste will eventually be removed from the Project site and will either be disposed of at the Otjiwarongo or Otavi waste disposal site (household or garden waste).

8.2 OBJECTIVES

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

8.3 ROLES AND RESPONSIBILITIES

WORKFORCE AND ALL CONTRACTORS

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

SITE MANAGER AND ENVIRONMENTAL COORDINATOR

- Required to inspect receipts and evidence of correct waste handling.
- Review waste management practices regularly during the construction and exploration operations on site.

8.4 SOLID AND LIQUID NON-MINERAL WASTE

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

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

- Reduce, reuse, and recycle where possible
- Storage of domestic waste on site may result in the attraction of unwanted scavengers and should be disposed of the accredited site as soon as is feasible, and
- Hydrocarbon and chemical contaminated solids have the potential to cause contamination to the soil or groundwater thus correct storage and disposal methods are required. Some of these materials can be recycled or used by other facilities.

Table 6- Waste Mitigation Measures

Responsibility	Exploration Manager Site Manager Employees
Potential issues or impacts	– Soil and ground water contamination due to spillage – Land and water pollution. – Loss of biodiversity – Infectious diseases
Waste Management Plan	The Proponent should compile a waste management plan that should address as a minimum the mitigation measures included below
Hazardous waste	All vehicles (4x4 vehicles and trucks) and equipment on site should be provided with an oil spill kit: - All spillages should be cleaned immediately, and contaminated waste disposed of as it occurs in the appropriate hazardous waste containers (sealable drums) on site, and removed off site at the end of each day to the closest recognised, appropriate hazardous waste disposal site in the vicinity or as soon as possible when working in remote areas - Once spill kits are utilised, the kits need to be replenished to ensure full kit available at all times
	All mining vehicles should be maintained regularly to prevent oil leakages. Maintenance of vehicles is not permitted to occur on site as far as reasonably possible, but if maintenance is to be undertaken on site, measures need to be put in place to avoid hydrocarbon spillages.
	Maintenance and washing of vehicles should be conducted at a suitable site/facility which adhere to the following: – The work area/facility should be lined to be impermeable – The work area/facility should have an oil-water separator (oil trap) to collect any run-off from the washing and or maintenance activities, or be equipped with an oil and water separation system
	Spilled oil or fuel should be treated as hazardous waste, disposed of as it occurs in the appropriate hazardous waste containers (sealable drums) on site, and removed off site at the end of each day to the closest recognised, appropriate hazardous waste disposal site in the vicinity or as soon as possible when working in remote areas. All such waste should be provided to specialists in the handing and treatment of such materials.

	All hazardous substances (e.g., fuel, grease, oil, drilling fluids etc.) or chemicals should be stored in a specific location at the exploration campsite on an impermeable surface which is bunded.
General waste	The exploration site should be kept tidy at all times. All domestic and general waste produced daily should be contained: – No waste may be buried or burned – No waste is to be left uncontained, in suitable containers, over night – Waste containers (bins) should be emptied regularly and removed from site to the nearest official waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot if available – A sufficient number of separate waste containers (bins) for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such – Exploration personnel should be sensitised to dispose of waste in a responsible manner and not to litter – No waste may remain on site after the completion of the project
Residual mineral samples	Samples that will not be used for further analysis or submitted to MME should be taken off site or used (with the required permission from the affected landowner and/or tenant) to repair any possible damaged roads. No samples are to be dumped at site or in the vicinity of the site as to not affect rehabilitation efficiency through physical and chemical pollution of weathering samples.
Littering and environmental contamination from waste	No littering by workers shall be allowed.
	All litter on and around the site must be picked up and placed in the bins provided
	The site should be kept tidy and free of litter at all times. All domestic and general waste produced on a daily basis should be cleaned and contained daily.
	No solid waste landfill will be established at the site.
	No waste shall be burned or buried anywhere unless permitted to do so.
	Waste shall be collected and shall be removed regularly to avoid bad odours.
	Hazardous and non-hazardous waste shall be stored separately at all times.
Environmental contamination	Hydrocarbon and chemical contaminated solids must be stored correctly and disposed of by registered companies.

from liquid waste	Safe disposal certificates must be kept and provided to the exploration manager on request.
Sewage and grey water from temporary portable toilets on site	Portable toilets such as portable camping units, must be provided during exploration
	Discharging of the portable units are to be conducted at an existing suitable facility
Monitoring Requirements	1. Monitor whether the provisions set out in this EMP concerning waste management is being applied as per instructions 2. All non-compliances should be recorded and discussed at weekly site meetings and timeous remedial actions taken 3. All guilty parties that are in contravention of the provisions set out for managing waste should be given a penalty and according to the severity of the impact appropriate steps taken

8.5 WASTE DISPOSAL MONITORING

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

9 SPILL MANAGEMENT PROGRAMME

9.1 INTRODUCTION

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

9.2 OBJECTIVES

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

9.3 ROLES AND RESPONSIBILITIES

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

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

9.4 SPILL PREVENTION MEASURES

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

- Spill kits are to be made available throughout the site. The kits are to include, as a minimum, the following items:
    - Absorbent materials
    - Shovels
    - Heavy-duty plastic bags
    - Protective clothing (e.g., gloves and overalls), and
- Major servicing of equipment shall be undertaken off-site in appropriately equipped workshops
- Ensure drill pads liners and spill kits are in place,
- All vehicles and machinery undergoing maintenance must have drip trays to collect leakages of lubricants and oil
- Consider alternative sites when the water table is too high,

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

9.5 SPILL RESPONSE MEASURES

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

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

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

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

- Spills are to be stopped at source as soon as possible (e.g., close valve or upright drum)
- Spilt material is to be contained to the smallest area possible using a combination of absorbent material, earthen bunds, or other containment methods
- Spilt material is to be recovered as soon as possible using appropriate equipment. In most cases, it will be necessary to excavate the underlying soils until clean soils are encountered
- All contaminated materials recovered subsequent to a spill, including soils, absorbent pads, and sawdust, are to be disposed to appropriately licenced facilities

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

Table 7 - Spill mitigation measures

Responsibility	Exploration Manager Site Manager Employees
Potential issues or impacts	Soil and ground water contamination due to spillage
Stored Hazardous Chemicals	Hazardous chemicals are to be stored in bunded areas
	Hazardous chemicals (such as fuels) are to be handled over areas provided with impervious surfaces
	Spills of hazardous chemicals are to be contained and cleaned-up to ensure protection of the environment
	All the necessary PPE required for the safe handling and use of petrochemicals and oils shall be provided to, and used or worn by, the onsite staff
Machinery and Equipment Maintenance	Major servicing of equipment shall be undertaken off site or in appropriately equipped workshops
	For small repairs and required maintenance activities all reasonable precautions to avoid oil and fuel spills must be taken (e.g., spill trays, impervious sheets).
	Vehicles and machinery are to be regularly serviced to minimise oil and fuel leaks
	All the necessary PPE required for maintenance activities must be issued to staff whose duty it is to manage and maintain the machinery and equipment.

The table below shows the environmental risks and issues, and mitigation and monitoring measures for the Spill of hazardous substances.

Table 8 - Spill of Hazardous Substances

Responsibility	- Exploration Manager - Site Manager - Environmental Manager	
Potential issues or impacts	Hydrocarbon and chemical handling and storage can cause spillages that lead to groundwater contamination and soil contamination.	
Management/ Mitigation measures	Safe delivery and handling	1. Training employees and toolbox talks 2. Good housekeeping across the site 3. Fuel and chemicals are handled with care 4. Spill kits to be at designated areas across the site or available for use during refuelling, fuel/chemical delivery, or use. Absorption material should be available and at hand. Where sawdust is used it should be cleaned up immediately and not left for long periods as this poses a fire hazard 5. Any major spill is reported once containment has been achieved 6. Equipment to be well maintained and serviced regularly 7. In the field, the use of hydrocarbons under 200 litres can be used for mobile refuelling or servicing
	Storage	1. All tanks to be stored on a non-porous floor and within a bunded area. 2. Bund to be capable of storing at least 110% of the volume of the largest tank 3. All containers to be suitable for use and not damaged 4. Tanks are locked at all time 5. Spill kits available at storage locations and around the site at suitable locations
	Refuelling	1. Drip tray to be used during refuelling of vehicles and on an impermeable flat surface where possible 2. A funnel should be available and used to avoid spillage during decanting

	Rehabilitation	Contaminated soils should be removed and deposited on lined storage areas for rehabilitation purposes. Rehabilitation can take place naturally by adding water, air and fertiliser. The process can be accelerated by using special additives that will breakdown the hydrocarbons.
Monitoring requirements	1. Daily observations when fuels/chemicals are delivered and handled 2. Supervision during refueling 3. Weekly observations monitor containment and storage 4. Establish an internal land clearing permit system that restricts advance clearing. 5. Monitor the level of hydrocarbons in contaminated soils after a year of rehabilitation. 6. Monitor each year until the soils are ready for re-use in revegetation projects.	

For large-scale spills over 200L and other significant environmental incidents, the fire services should be contacted as required and the office of the Ministry of Environment, Forestry and Tourism (MEFT) informed of the incident (telephone +264 61 284 2111). All correspondence with MEFT should be undertaken by the manager.

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

9.6 SPILL REPORTING

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

9.7 REHABILITATION OF CONTAMINATED SOILS

A procedural manual for rehabilitating contaminated soils on site should be developed. All soils that are contaminated with chemicals and or hydrocarbons should be taken to the rehabilitation area.

10 AIR QUALITY MANAGEMENT PROGRAMME

10.1 INTRODUCTION

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

10.2 OBJECTIVES

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

10.3 RESPONSIBILITIES

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

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

10.4 AIR QUALITY MANAGEMENT PROCEDURES

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

- Vehicle movements
- Machinery operations

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

- Appropriate speed limits will be set and enforced.
- Ground disturbance will be minimised as far as practical.
- Vehicles and machinery will be maintained so as to limit exhaust fume emissions.

Table 9 - Air Quality Mitigation Measures

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

10.5 AIR QUALITY MONITORING

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

1. Daily observations

2. Air quality monitoring:

Use appropriate mitigation measures to minimise dust generation, for example, keep ground damp/wet in areas where there is the potential for dust generation, minimise vegetation removal (prevent exposure of bare ground) etc. If any complaints are received with regards to dust additional measures will need to be implemented (i.e, fallout dust monitoring).

10.6 ODOURS, NOISE AND VIBRATION IMPACTS

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

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

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

Occupational noise and vibration are managed through the health and safety management plan and therefore not applicable to this EMP.

Table 10 below shows the environmental risks and issues, and mitigation and monitoring measures for noise aspects

Table 10 – Noise Aspects

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

11 ARCHAEOLOGICAL AND HERITAGE PROGRAMME

Areas of the proposed Project is subject to a heritage survey and assessment at the planning stage. These surveys are based on surface indications alone, and it is therefore possible that sites or items of heritage significance will be found in the course of development work, subsurface. The procedure set out here covers the reporting and management of such finds.

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

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

Table 11 below shows the environmental risks and issues, and mitigation and monitoring measures for Archaeological and heritage aspects.

Table 11– Archaeological and Heritage Aspects

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

	– Recover, package and label findings for transfer to the National Museum
	Should human remains be found, the following actions will be required: – Apply the chance find procedure as described above – Schedule a field inspection with an archaeologist to confirm that remains are human – Advise and liaise with the NHC and Police – Remains will be recovered and removed to either the National Museum or the National Forensic Laboratory.
SPECIFIC MITIGATION DETAILS	
Archaeology	Obtain inputs from an archaeologist to identify potential archaeological sites in the area and to determine further mitigation where necessary
Monitoring requirements	1. Check that the archaeologist has given a written statement about the location of the known archaeological sites in the area vs the location of the drilling area. 2. Make sure no archaeological site is disturbed whilst excavation and recovery take place 3. 3. Make sure everything of importance, as identified by an appropriate specialist, is removed from site and declared safe by an archaeologist before exploration can continue on the site

11.1 RESPONSIBILITY

Operator - to exercise due caution if archaeological remains are found
Foreman - To secure site and advise management timeously
Superintendent - To determine safe working boundary and request inspection
Archaeologist - To inspect, identify, advise management, and recover remains

11.2 PROCEDURE

Action by person identifying archaeological or heritage material

a) If operating machinery or equipment stop work
b) Identify the site with flag tape
c) Determine GPS position if possible
d) Report findings to foreman

Action by foreman

a) Report findings, site location and actions taken to superintendent
b) Cease any works in immediate vicinity

Action by superintendent

a) Visit site and determine whether work can proceed without damage to findings
b) Determine and mark exclusion boundary

c) Site location and details to be added to project GIS for field confirmation by archaeologist

Action by archaeologist

a) Inspect site and confirm addition to project GIS
b) Advise NHC and request written permission to remove findings from work area
c) Recovery, packaging and labelling of findings for transfer to National Museum

In the event of discovering human remains

a) Actions as above
b) Field inspection by archaeologist to confirm that remains are human
c) Advise and liaise with NHC and Police
d) Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.

12 IMPLEMENTATION OF THE EMP

This environmental management plan:

A. Has been prepared according to a contract with the proponent
B. Has been prepared based on information provided to ECC up to October 2022
C. Is for the sole use of the proponent, for the sole purpose of an EMP
D. Must not be used (1) by any person other than the proponent or (2) for a purpose other than an EMP
E. Must not be copied without the prior written permission of ECC.

Submitted to: Yucca Investments One Hundred and Thirty CC
Attention: Mr Matthews Nakalemo
P O Box 2269
Ausspannplatz
Windhoek, Namibia

REPORT:

BACKGROUND INFORMATION DOCUMENT FOR EXPLORATION ACTIVITIES ON EPL 5680, OTJOZONDJUPA REGION, NAMIBIA.

PROJECT NUMBER: ECC-135-401-BID-05-D

REPORT VERSION: REV 01

DATE: 23 AUGUST 2022

Prepared by:

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

TITLE AND APPROVAL PAGE

Project Name:	Background information document for exploration activities on EPL 5680, Otjozondjupa Region, Namibia.
Client Company Name:	Yucca Investments One Hundred and Thirty CC
Client Name:	Mr Matthews Nakalemo
Ministry Reference:	APP-TBC
Authors:	Lester Harker and Monique Jarrett
Status of Report:	Final /Rev 01
Project Number:	ECC-135-401-BID-05-D
Date of issue:	23 August 2022
Review Period	24 August to 7 September 2022

ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

We welcome any enquiries regarding this document and its content. Please contact:

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PO Box 91193, Klein Windhoek, Namibia
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DISCLAIMER

Environmental Compliance Consultancy (ECC) (Reg. No. CC 2013/11401) has prepared this report on behalf of the Proponent. This report has been authored by employees of ECC, who have no material interest in the outcome of this report, nor do any of the ECC team have any interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this report. ECC is independent from the Proponent and has no vested or financial interest in the Project, except for fair remuneration for professional fees rendered which are based upon agreed commercial rates. Payment of these fees is in no way contingent on the results of this report or the assessment, or a record of decision issued by Government. No member or employee of ECC is, or is intending to be, a director, officer, or any other direct employee of the Proponent. No member or employee of ECC has, or has had, any shareholding in the project. Any personal views or opinions expressed by the writer may not necessarily reflect the views or opinions of Environmental Compliance Consultancy or its client.

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1.2 PURPOSE OF THIS DOCUMENT

Environmental Compliance Consultancy (ECC) has been contracted by Yucca Investment One Hundred and Thirty CC to conduct an environmental assessment and develop an environmental management plan (EMP), for exploration activities for base, rare and precious metals and industrial materials on EPL 5680 in the Otjozondjupa Region, Namibia. Consistent with the Environmental Management Act, 2007 and its regulations, an environmental clearance certificate application will be submitted to the competent authority being the Ministry of Mines and Energy (MME) and Ministry of Environment, Forestry and Tourism (MEFT) to make a Record of Decision (RoD) with regards to the proposed project.

The purpose of this Background Information Document (BID) is to provide Interested and Affected Parties (I&APs) a background to the proposed Project and to invite I&APs to register as part of the assessment process.

All those who register as an I&AP will be kept informed throughout the process. Registration provides a platform for participants to submit comments, concerns, or recommendations regarding the proposed project. This BID includes the following information:

- The proposed project and location
- The necessity of the project, benefits or adverse impacts anticipated
- The alternatives within the project that will be considered and assessed
- How the assessment process works
- The public participation process and how to become involved
- Next steps and the way forward

1.3 DESCRIPTION OF THE PROPOSED PROJECT

The Proponent intends to carry out exploration activities of rare, base and precious metals and industrial minerals on the Exclusive Prospecting Licence (EPL) 5680. The proponent will conduct geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, percussion drilling, reverse circulation (RC), and diamond drilling.

The proposed Project is located within the Grootfontein District, in the Otjozondjupa Region. The EPL is located between Otjiwarongo and Otavi and is accessible via a network of farm roads leading off the paved road east of B2Gold Otjikoto Mine as set out in Figure 1.

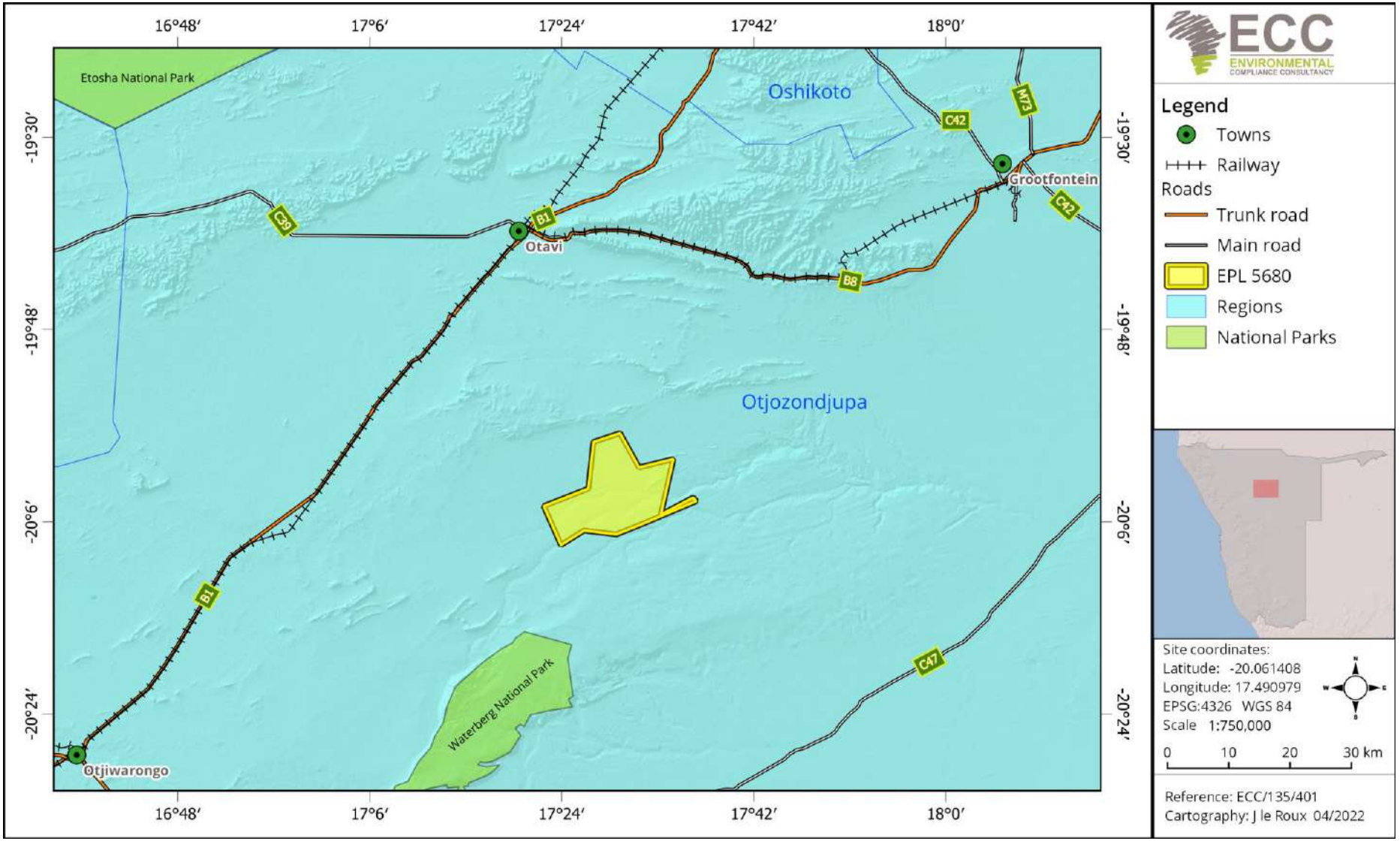

Figure 1 – Site locality map

1.4 NEED FOR THE PROJECT

The Proponent intends to pursue exploration activities in Namibia with the aim of identifying new mining prospects new mining activities could contribute to the national and local economies and may have a positive impact on the country's economy. Namibia is rich in natural resources and the minerals sector is a key contributor to the nation's GDP in Namibia. Exploration could lead to mining activities, which would contribute to the national and local economy.

1.5 CONSTRUCTION AND OPERATIONAL PHASES

The following are envisioned during the proposed Project:

- Geological mapping
- Geochemical surveys
- Ground and airborne geophysical surveys
- Geological sampling
- Percussion, RC and/or diamond drilling

2 CONSIDERATION OF ALTERNATIVES

Best practice environmental assessment methodology calls for consideration and assessment of alternatives to a proposed project. In a project such as this one, it is difficult to identify alternatives to satisfy the need of the proposed Project; the activities shall be specific to EPL 5680, which was granted by the MME to Yucca Investments One Hundred and Thirty CC.

During the assessment, alternatives will take the form of consideration of optimisation and using eco-friendly solutions to reduce potential impacts. Some aspects where alternatives may be required could include:

- Different types of technology or operation
- Different access routes
- Different exploration techniques

3 THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PROCESS

The assessment for the proposed project is being conducted by ECC and will be undertaken in terms of the Environmental Management Act, 2007 and its regulations. The process followed for this assessment is set out in the flowchart in **Error! Reference source not found.**.

ECC has been contracted by Yucca Investments One Hundred and Thirty CC as the independent Environmental Assessment Practitioner (EPA) to facilitate the entire assessment process. Prior to the start of the proposed project, an environmental clearance certificate is required in terms of the Environmental Management Act, 7 of 2007 and the associated EIA Regulations.

A final decision relating to the above-mentioned application will be made by Ministry of Environment, Forestry and Tourism (MEFT): Department of Environmental Affairs (DEA).

The related environmental process will include:

1. Screening phase (completed)
2. Scoping phase which includes baseline studies and the development of the Terms of Reference (ToR) for the assessment (initiated)
3. Assessment phase which includes impact prediction and evaluation of alternatives, assigning mitigation measures and developing monitoring and conceptual rehabilitation plans. This phase culminates in the drafting of the assessment report and draft Environmental Management Plan (EMP) and submission to the appropriate competent authorities

The main objectives of the assessment are to:

a) Provide information describing the proposed exploration activities;
b) Provide an independent environmental and social assessment of the activities associated with the proposed project; and
c) Develop management and mitigation measures associated with any identified potential impacts where necessary.

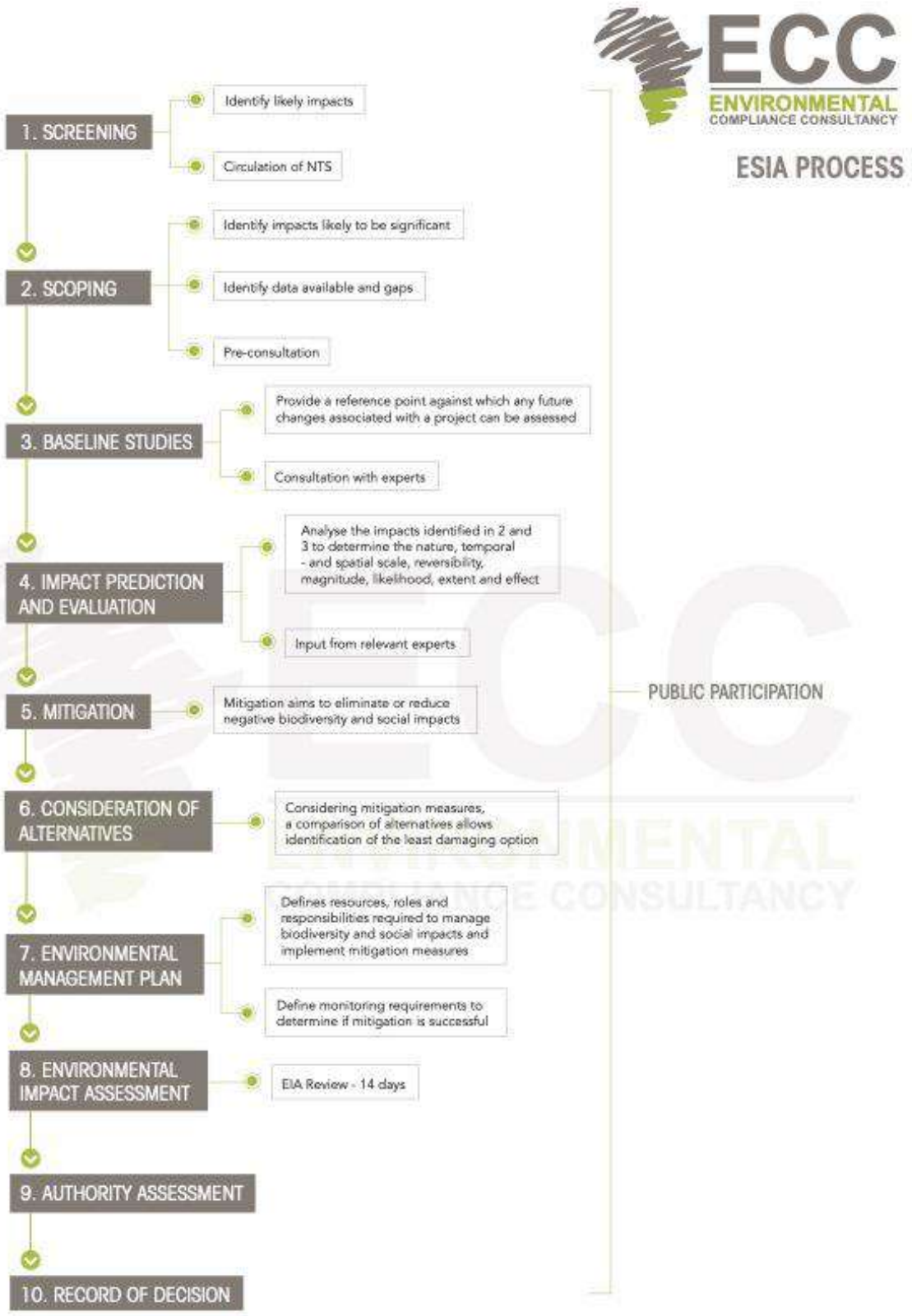

Figure 2 - Flowchart of the environmental and social assessment process

3.1 SCREENING

A review of the planned project was undertaken and the screening findings against the listed activities was conducted; the findings of which are summarised in Table 1.

Table 1- Listed activities triggered by the proposed project

LISTED ACTIVITY	MINING ACTIVITY
WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES (2.1) The construction of facilities for waste sites, treatment of waste and disposal of waste. (2.3) The import, processing, use and recycling, temporary storage, transit or export of waste	• If needed, a septic tank will be installed on-site (operational phase), otherwise chemical toilets will be used during initial set up and operations. • Waste generated which will be mainly solid waste and general waste during the exploration phase will be removed by a skip and will be disposed of at the nearest landfill site. • Waste will be recycled to the extent possible.
MINING AND QUARRYING ACTIVITIES (3.1) The construction of facilities for any process or activities which requires a license, right or another form of authorization, and the renewal of a license, right or another form 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	• The proposed Project has obtained an EPL from MME; now requires an environmental clearance from DEA/MEFT for the search for base, rare and precious metals, and industrial minerals. • The Proponent will be undertaking exploration activities on EPL 5680, which will include geological mapping, geochemical surveys, ground and airborne geophysical surveys, geological sampling, rotary air blast, reverse circulation, and diamond drilling.
FORESTRY ACTIVITIES 4. The clearance of forest areas, deforestation, afforestation, timber harvesting, or any other related activity that requires authorisation in terms of the Forest Act, 2001 (No. 12 of 2001) or any other law.	• The Proponent will use existing access and tracks but will likely clear vegetation for some exploration activities (i.e., access to planned drilling areas and areas around the drill site as protection to prevent veld fired).

LISTED ACTIVITY	MINING ACTIVITY
WATER RESOURCE DEVELOPMENT (8.1) The abstraction of ground or surface water for industrial or commercial purposes.	• For the drilling of exploration boreholes, groundwater may need to be abstracted, or water will be sourced.
HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE (9.2) Any process or activity which requires a permit, licence or other forms of authorization, or the modification of or changes to existing facilities for any process or activity which requires amendment of an existing permit, licence or authorization or which requires a new permit, licence or authorization in terms of a governing the generation or release of emissions, pollution, effluent or waste. (9.4) The storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.	• If needed, a septic tank will be installed for the ablutions that may be constructed. • Chemical toilets can be used during the Project • Bulk fuel may be required for the onsite generation of electricity, and for refuelling the mining fleet. • Consumer installation certificates are required for bulk fuel storage and dispensing. • MSDS sheets will be kept onsite, accessible, and used for all dangerous materials, chemicals, solvents, lubricants, and related substances. The MSDS sheets ensure proper transport, handling, storage, use, disposal, and response in the event of an incident.

3.2 SCOPING

The scoping phase is directed towards defining the range and nature of anticipated potential impacts that may have significance to the biophysical and social environments at the scale of the proposed operations. The appropriate available data and the literature are identified forming the starting point for the assessment of the required baseline and specialist studies that may be required for assessment of the project impacts.

3.3 BASELINE STUDIES

The assessment will focus on the environmental receptors that could be affected by the proposed project. ECC will also engage with stakeholders, I&APs and the proponents to seek input into the assessment. The baseline studies chapter is broken into three sections, the baseline context, environmental (physical and biological), and social (including economic).

Desktop studies a well as all available field surveys and specialist studies from the project area will be used to help define the baseline. These studies also give a further indication whether there are any local or regional future developments that could impact the project or vice versa.

Lastly the socio-economic section of the baseline studies helps to gain information on the governance, demographic profile, social stratification (employment, education, crime, infectious disease), occupation and livelihood (economic activities, occupations in study area, employment rates), land patterns (noise and vibrations) and access to services (drinking water, sanitation, healthcare facilities etc.).

3.4 TERMS OF REFERENCE

Based on the stakeholder engagement through the defined public consultation process including any written correspondence and the baseline studies, the ToR for the impact assessment will be finalised and confirmed with the Environmental Commissioner.

3.5 STAKEHOLDER ENGAGEMENT

The public and key stakeholders receive invitations to register as I&APs. After the presentation of the proposed project and assessment process through he defined public consultation process, a period of time for input will be granted for the Environmental Assessment Practitioner (EAP) to receive any additional concerns or comments from registered I&AP's. All feedback from the initial public consultation process will be incorporated into the scoping report.

3.6 SCOPING REPORT

The scoping report will be drafted and made available to the registered I&APs for comment before being submitted to the competent authority and MEFT. The scoping report will contain a description of the project and the biophysical and socio-economic environments, the specialist baseline studies, the stakeholder engagement report and the terms of reference for the assessment.

3.7 ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PHASE

3.7.1 POTENTIAL IMPACTS

The potential social and economic impacts should be considered with due regard to the nature and scale of the proposed operations its location within the broader ecological, commercial and social environments. The potential environmental and social impacts that have been anticipated may include the following:

- Heritage impacts
- Power and water supply
- Water use, contamination, and management
- Waste management

- Waste resource management
- Visual impacts
- Biodiversity impacts
- Socioeconomic and social impacts, such as job creation
- Potential pollution impacts
- Rehabilitation

3.7.2 DRAFT ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

An EMP shall be developed for the proposed project setting out auditable management actions for the project to ensure careful and sustainable management measures are implemented for their activities in respect of the surrounding environment and community. The EMP becomes the legally binding commitments upon approval of the EMP and issuing of the environmental clearance certificate. Environmental clearance certificates are issued for a period of 3 years and renewal is subject to compliance with the provisions and conditions of the environmental clearance certificate.

4 THE WAY FORWARD – PUBLIC PARTICIPATION

Public participation is an important part of the assessment process. It allows you, the public and stakeholders to raise concerns or provide valuable local environmental knowledge that can benefit the assessment process as well as aid the planning process for the scoping phase of the defined assessment process. At this phase ECC will perform the following:

- Prepare and submit the application for the environmental clearance certificate in the prescribed manner
- Identify relevant key stakeholders, authorities, municipalities, environmental groups and interested or affected members of the public, hereafter referred to as I&APs
- Carry out a public consultation process in accordance with Regulation 21 of the EMA 2007 including:
    - Distribute the BID for the proposed Yucca Investments One Hundred and Thirty CC exploration Project (this document)
    - Advertise the environmental application and call for registration of I&APs in two national newspapers
    - Open the project I&AP register and record all comments of I&APs and present both comments and responses provided by ECC, in the comments and responses report, which will be included in the scoping report and submitted with the application
- Prepare a scoping report and provide it to registered I&APs for comment
- Submit the scoping report and the I&AP comments to the competent authority and Environmental Commissioner for a record of decision

Your request for registration as an I&AP as well as any comments on the BID or Project must be submitted in writing and can be emailed using the details in the contact us section below. Registration as an I&AP for the project can be completed online on ECCs website on the projects page, or by using this link: https://eccenvironmental.com/projects/

Registration as an I&AP should be submitted on or before: **7 September 2022**.

We welcome any enquiries regarding this document and its content. Please contact:
Environmental Compliance Consultancy (ECC)
info@eccenvironmental.com
Tel: +264 816 697 608
www.eccenvironmental.com
At ECC we make sure all information is easily accessible to the public.
Follow our social platforms online to be kept up to date.

Jessica Mooney

Director & Principal Environmental Practitioner

Hello! :)

ABOUT ME

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Jessica Mooney

Education & Qualifications

Federation University Australia 2003-2006 — Bachelor of Applied Science -Environmental Management

Additional Qualifications

- Management Systems Leadership
- ICAM - Incident Cause Analysis Method
- Certificate II in Metalliferous Mining core safety and risk management
- Certificate III in Mine Emergency Response & Rescue
- Level 3 – HLTFA402B Apply Advanced first Aid
- Emergency Rope Rescue
- Level 2 - 21593VIC First Aid level 2
- Bonded Asbestos Removal >10m2
- Leading and Managing People – Brisbane North Institute of TAFE

Experience & Work History

Current

Environment Specialist

Environmental Compliance Consultancy
With 13 years international experience, Jessica provides professional consulting services to clients in Namibia with particular focus on approvals, ECCs, reporting and compliance.

- ECC Approvals
- Mine Closure Plans
- Rehabilitation
- Strategic Environmental Impact Assessments
- Social Impact Assessments
- ARD/AMD Assessments and Reporting
- IMS (ISO14001 and 18001)

Nov 2013-Feb 2016

Group HSE Manager

Weatherly Mining Namibia
An exciting role covering the breadth of two operational underground mines (Otjihase and Matchless) and the construction of a new open pit mine (Tschudi) working for Weatherly Mining in Namibia, Africa.

- Managed company's SHEQ portfolio
- Full scale construction of new greenfield mine into operational copper mine
- Reduced LTIFR by 90% from 23.1 to 2.4 in 22 months!
- Implemented integrated management system
- Approvals, ECC renewals and EMPs
- Established the first mining environmental forums in Namibia
- Implemented SAFE COPPER cultural change programme

Jessica Mooney

Environment Specialist

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

References

Feel free to ask the boss

MR CRAIG THOMAS
Managing Director
Weatherly Mining

MR COLIN BULLEN
Managing Director
Imerys (client)

Group Manager Lihir Gold
MR NICK CURREY
Director at Sustainable Mining Strategies

Or ask those who have worked for me?

Ms Asteria Salmon
Worked as Control Room Operator WMN

Mr. Hermanus Lamprecht
Paramedic Safety Officer

Professional Associations

- Chamber of Mines Namibia
- Women on Boards
- The Chamber of Minerals and Energy of Western Australia Industry Member – Mining, Minerals and Resources

Fun Facts:

- I can deadlift 135kg
- To keep fit I Olympic weight lift
- I run ultra Marathons & the longest run yet the fish river Canyon 65km
- I am one of 6 children - do you think that means 4 of us suffer middle child syndrome?

Words I live by:

'The journey will bring you happiest, not the destination'

Experience & Work History

Feb 2013- Feb 2014

Environmental Consultant

Ensolve Pty Ltd - Australia

In February 2013 an opportunity came about to launch my own business, Blue Wren Environmental Services.

During this time I have worked alongside Ensolve Pty Ltd to deliver several environmental projects including:

- A mine closure project taking an operating mine site into the rehabilitation and closure phase. This project involved the full development of a mine closure plan, facilitation of the government approvals, stakeholder engagement and technical environmental studies to inform the mine closure plan
- Sustainability reporting in accordance with the Global Reporting Initiative
- Rehabilitation of historic exploration sites and obtaining associated government approvals for relinquishment of bonds.

Jan 2010- Feb 2013

Site Environmental Manager

Panoramic Resources – Australia

- Brought the site into full compliance with the Environmental Licence within 1 year.
- Managed projects relating to the expansions of the current mine tailings dams including obtaining approvals under the Mining Act 1978 and Environmental Protection Act 1986.
- Managed the environmental and community aspects of three operations; Savannah Nickel Mine, Copernicus Nickel Mine (currently in care and maintenance) and the operations at Wyndham Port
- Responsible for the environment, sustainability and social reporting portfolio
- Developed productive working relationships with local government environmental agencies and non-government agencies, which assisted with the approvals process.
- Developed strategies for the recruitment and retention of local Indigenous personnel

Jan 2007- Jan 2010

Environmental Systems Coordinator

Lihir Gold Limited – Australia

Working on site to provide technical environmental and community advice to ensure all regulatory and licence obligations were met or exceeded

- Regulatory Approvals (State and Federal Government)
- Environment and social aspects of the international cyanide management code
- Operational budgeting and bond management for mine closure
- Compliance with the legislative framework
- Community engagement

CURRICULUM VITAE

MONIQUE JARRETT

Name of Consultant:	Monique Jarrett
Position / Profession:	Junior Environmental Practitioner
Date of Birth:	25 March 1997
Nationality:	Namibian
Professional Memberships:	EAPAN No. 234
Email:	monique@eccenvironmental.com
Website:	www.eccenvironmental.com
Contact:	+264 81 3811 474

QUALIFICATIONS:

University of Namibia: **2016 – 2020** Bachelor of Science (Honours) in Environmental Biology

PROFESSIONAL ASSOCIATIONS:

- Environmental Assessment Professionals Association of Namibia (EAPAN)

PROFILE:

As a holder of a BSc (Hons) in Environmental Biology from the University of Namibia, Monique is passionate about conservation, sustainability, climate change and environmental management by contributing to effective environmental management systems. She has acquired a variety of skills assisting with various ESIA, environmental monitoring and compliance projects as a junior environmental practitioner.

KEY AREAS OF EXPERTISE:

Environmental (and social) Impact Assessments (EIAs) (ESIAs)	-	Compiling EIA Reports and EMPs Public Participation & Stakeholder Management
Environmental Management	-	Environmental Management Systems (EMS), Tenement management, Environmental monitoring and compliance, and Public Participation & Stakeholder Engagement.

LANGUAGES:

	Read	Write	Speak
English	Excellent	Excellent	Excellent

SUMMARY OF EXPERIENCE AND CAPABILITY:

Since 2016 Monique has been working in the environmental industry. Monique has written a variety of articles on environmental and sustainability topics analysing current international and national environmental matters. Monique started gaining experience in compliance monitoring while working on the support to Community Based Natural Resource Management (CBNRM) project with GIZ. Monique gained extensive experience in environmental awareness as a climate change ambassador for Gobabeb in 2021. Monique joined the ECC team in 2021 where she has been actively involved in the ESIA process and monitoring/EMP compliance for clients.

PROJECT EXPERIENCE

PROJECT	DATE	ROLE
Support to CBNRM Compliance monitoring	2018	Intern
Climate Action for Millennials Programme	2021	Climate Ambassador
Elevate Uranium Tenement management	Present	Junior environmental practitioner
Headspring Environmental Compliance and Monitoring	2022	Junior environmental practitioner
Craton Environmental Compliance and Monitoring	2022	Junior environmental practitioner
B2Gold Environmental Compliance and Monitoring	2022	Junior environmental practitioner
Votorantim Environmental Compliance and Monitoring	2022	Junior environmental practitioner
Namibian Marine Phosphate – Sandpiper Marine Phosphate Project ESIA	2022	Junior environmental practitioner
Votorantim Metals Namibia EPL 8403 ESIA	2022	Junior environmental practitioner
B2Gold Namibia Minerals EPL 8404 ESIA	2022	Junior environmental practitioner
Skorpion Mining Company EPL 8570 ESIA	2022	Junior environmental practitioner

CERTIFICATION:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

DATE: 7/09/2022

Monique Jarrett

CURRICULUM VITAE

Diaan Hoffman

Name of Consultant:	Diaan Hoffman
Position / Profession:	Junior Ecologist and emerging Environmental Practitioner
Date of Birth:	19 May 1996
Nationality:	Namibian
Professional Memberships:	EAPAN No. 213
Email:	diaan@eccenvironmental.com
Website:	www.eccenvironmental.com
Contact:	+264 81 467 4294

QUALIFICATIONS:

University of Stellenbosch:	**2015 – 2018**	BSc Conservation Ecology

PROFILE:

Highly accomplished professional with experience as an environmental consultant. An out-the-box thinker, passionate about high-quality service in fast-paced environments. Excellent planning and execution ability, able to lead and collaborate with teams to deliver beyond expectations.

KEY AREAS OF EXPERTISE:

Environmental (and social) Impact Assessments (EIAs) (ESIAs)	-	Compiling EIA Reports and EMPs Public Participation & Stakeholder Management
Conservation		Small mammal sampling and parasite analysis. In-depth knowledge of biodiversity and Ecology.

LANGUAGES:

	Read	Write	Speak
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Excellent	Excellent

SUMMARY OF EXPERIENCE AND CAPABILITY:

Since 2019, Diaan has been working as an environmental assessment practitioner. In 2021 he started working as a junior ecologist assisting with the rangeland management and the FSC standard in Namibia. Diaan has a good biodiversity and ecology background.

PROJECT EXPERIENCE

PROJECT	DATE	ROLE
ENAEX EIA: Assisting with application for Environmental Clearance Certificate (ECC)	2019 - 2020	Team member
Bulk Mining Explosives: Updating EMP and application for renewal of ECC.	2019-2020	Team member
Sand Miners Association: Assisting with the writing of the EIA, EMP and creating of Maps	2019 - 2020	Team member
Okapana (TOTAL) Service Station CC: Conducting and assisting with the whole EIA process.	2019 - 2020	Team member
Walvis Bay Salt Refiners: Measuring Environmental Noise and assisting with the report writing.	2019-2020	Team member
Jumbo Charcoal FSC Group Scheme management.	2021 - Present	Team member
Jumbo Charcoal: writing of EMP	2021	Team member
EMCON: Creating Maps and Baseline sections for ESIA	2021	Team member
Nexus Charcoal: Conducting and assisting with the whole ESIA process.	2021	Team member
Etosha Charcoal: writing of EMP	2021	Team member
FSC Mapping and rangeland management	2021- Present	Team member
GIS Mapping: Using QGIS to produce maps for various projects.	2021-2022	Team member
Uis Afrititn EPLs: Conducting and assisting with the whole ESIA process.	2021	Team member
Paratus ESIA: Conducting and assisting with the whole ESIA process.	2021	Team member
Gmundner ESIA: Conducting and assisting with the whole ESIA process.	2021 -2022	Team member
!Uris Amendment: Conducting and assisting with the Amendment	2021 -2022	Team member
Maxwell 13 MW Solar plant ESIA: Conducting and assisting with the whole ESIA process.	2021-2022	Team member
Retort Charcoal Amendment: Conducting and assisting with the Amendment	2022	Team member
Retort Charcoal Compliance reports	2022	Team member
InnoSun 36 MW Solar plant ESIA: Conducting and assisting with the whole ESIA process.	2022-Present	Team member
Yucca Exploration ESIA: Conducting and assisting with the whole ESIA process.	2022-Pesent	Team member

CERTIFICATION:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and experience.

DATE: 23/08/2022

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Diaan Philip Hoffman