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EXPLORATION ACTIVITIES ON EXCLUSIVE PROSPECTING LICENSE (EPL) AREA 9972 IN THE OMAHEKE REGION

ENVIRONMENTAL ASSESSMENT SCOPING REPORT



Assessed by:

Assessed for:





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Prepared for:	Votorantim Metals Namibia (Pty) Ltd			
•	P O Box 97957, Maerua Park			
	Windhoek, Namibia			
APP No:	250401005576			
Lead Consultant	Geo Pollution Technologies (Pty) Ltd	TEL.: (+264-61) 257411		
	PO Box 11073	FAX.: (+264) 88626368		
	Windhoek	1111 (1204) 00020300		
	Namibia			
Main Project	André Faul			
Team	(B.Sc. Zoology/Biochemistry); (B.Sc.(l	Hons) Zoologi): (M.So. Conservation		
100111	Ecology); (Ph.D. Medical Biosciences)	Holis) Zoology); (M.Sc. Conservation		
	Quzette Bosman			
	(BA. Geography/Sociology); (BA. (Ho.	no) Parinonnostal Massacció		
	Ernest Pelser	iis) Environmentai Management)		
		Hanal English and Automatical		
	(B.Sc. Zoology/Microbiology); (B.Sc.(Holls) Elivironmental Science); (M.Sc.		
Environmental Science)				
	Johann Strauss (BA. Geography/Psychology/Environmental Management) Hardus Schoeman			
	(B.Sc. Geology/Chemistry); (B.Sc.	(Hons) Hydrology/Hydrogeology);		
	(M.Sc. Hydrology/Hydrogeology)			
	Pierre Botha			
	(B.Sc. Geology/Geography); (B.Sc. (Hons) Hydrology/Hydrogeology)			
	Surene Botha			
	(B.Sc. Geology/Geochemistry);	(B.Sc. (Hons) Geology);		
	(M.Sc. Hydrology/Hydrogeology)			
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	Ltd.			
Report	111 4			
Approval:	Herm			
	André Faul			

I, Y. HASS	, hereby approve this report and confirm that
has provided to Geo Pol	tained in herein is a true reflection of the information which the Proponent lution Technologies. All material information in the possession of the
Proponent that reasonable	y has or may have the potential of influencing any decision or the
objectivity of this assessm	nent is fairly represented in this report.
Signed at	on the ISh day of APRIL 2025.
· 60 M	
1/00	2013/0251
Votorantim Metals Namil	oia (Ptyphtogantim Metals Namibia (Ptyphtogany Registration Number Southport, Office 9R Hosea Kutako Drive

PO Box 9 76 Serva Park
Windhoek Namibia
Telephone Nr: +264 61 221016
Facsimile Nr: +264 61 231083

EXECUTIVE SUMMARY

Introduction

Votorantim Metals Namibia (Pty) Ltd (VMN or the Proponent) is a prospecting company registered in Namibia. Through the Ministry of Mines and Energy (MME), VMN has exclusive prospecting licenses (EPLs) across Namibia, focusing specifically on prospecting for base, rare and precious metals.

The Proponent received an "Intention to Grant" from the Ministry of Mines and Energy for their application for exclusive prospecting licence (EPL) 9972 in the Otjombinde Constituency of the Omaheke Region. The EPL is located on communal land used for agricultural purposes. It mainly falls within the Otjombinde Communal Conservancy and Otjombinde Community Forest, with a small portion being located within the Omuramba Ua Mbinda Communal Conservancy and Omuramba Ua Mbinda Community Forest. The EPL will be granted to the Proponent upon successful acquisition of an environmental clearance certificate (ECC) for the EPL area. Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by the Proponent, as independent environmental consultant, to assist with the necessary studies to determine the potential environmental impacts, and ultimately whether an ECC may be granted for this EPL. To achieve this, an environmental scoping assessment was undertaken to determine the potential positive and negative impacts of the Proponent's proposed exploration activities on the environment.

Scope and Methodology

The environmental assessment is conducted to determine all environmental, safety, health and socio-economic impacts associated with proposed exploration activities. Relevant environmental data was compiled by using secondary data and during a reconnaissance site visit. Potential environmental impacts and associated social impacts were identified and are addressed in this report.

Project Description

Activities conducted for the exploration of mineral resources consist of both remote and field assessments. Remote work include studying existing literature that provides information on geological and mineral data for the area of interest. A large part of remote work also involves studying and analysing satellite and aerial photography images. Technological advancements in these imagery methods have made it possible to gather a vast amount of data on both the surface and subsurface geology. Based on the remote work, an area of interest may be defined for field work. Field work will entail visiting the area and making observations regarding the surface geology. Soil and rock samples can also be collected for analysis. Various scientific techniques for surveying the subsurface may also be employed. This does not entail digging large holes or trenching, but may require some vegetation clearing where dense vegetation stands restricts access. Due to the dense vegetation in this EPL, aerial surveys with a helicopter, drone or airplane is likely to be conducted. Only when sufficient information is gathered with the above methods to identify potential mineable areas, will exploration drilling be undertaken. Such drilling allows for the collection of subsurface material for analysis, at varying depths. Any areas impacted by drilling will be rehabilitated to allow for rapid vegetation reestablishment and erosion prevention. After all exploration activities are complete, and all data has been analysed and processed, it is determined whether there are any minable resources within the EPL. Should there be minable resources, a mining licence application must be lodged, which will require its own, more focused, environmental assessment.

Public Participation

As part of the environmental assessment process, public consultation was performed. This entailed placing site notices at different locations within and around the EPL area, placing advertisements in two national newspapers, conducting two public meetings in the area, and notifying the conservancy and state forest committees, land owners, identified interested and affected parties and relevant authorities via email and/or hand delivered letter. All comments and concerns are addressed in the comments and responses table of this report.

Impacts

Positive impacts arising from the exploration project include employment, training and development of the Namibian workforce; increased economic resilience of employees and contractors; economic injection into the Namibian economy through the sourcing of goods and services, often with funds obtained from foreign investors; generation of new knowledge on, amongst others, the local geology and ecology of the exploration area; and potential discoveries of feasible minable mineral resources.

Negative impacts of exploration entails limited ecological disturbances where vegetation needs clearing for exploration. Pollution of the environment can occur when there are hydrocarbon leaks from drilling equipment and vehicles, or where waste is not contained and removed from site. Fire, dust, erosion, noise and deterioration of roads are also impacts associated with exploration.

Management of Impacts

Positive impacts can be enhanced by supporting local industries and contractors and appointment of local Namibian employees, as far as is practically possible. It should however be noted that the technologies are sometimes highly specialised and new to Namibia and will then require international expertise.

Negative impacts related to exploration will be limited by adherence to environmental management procedures and accepted industry standards. Exploration teams and their vehicles must be clearly distinguishable through uniforms, identification tags and vehicle branding. The footprint of vegetation clearing must be limited to only the necessary areas and the removal of protected species must be avoided as far as possible. Vehicles should at all times adhere to the speed limits imposed by the Proponent in order to prevent dust, noise and road damage. All waste must be contained and removed from site; all machinery must be inspected and maintained to prevent leaks. Spill control measures must be in place in order to contain spills and prevent it from entering soil or groundwater. Firefighting equipment and training are pertinent to prevent and respond to fires.

The Proponent must reach a surface access agreement with all land owners prior to accessing the EPL. Since the EPL falls within a communal area, various families live within the EPL area, who are not the owners of the land. They should still be notified and be given due consideration in terms of planning site visits. This includes being notified in advance of when exploration teams will be on site. All activities should be restricted to day time. Any deviation from this should be communicated to land owners and/or inhabitants without delay. Exploration teams must remain within agreed areas and should report any suspicious activities or incidents to the land owner.

The environmental management plan included in section 9.1 of this document should be used as an onsite reference document for planning, exploration and decommissioning activities. All monitoring and records kept should be included in a report to ensure compliance with the environmental management plan and environmental clearance certificate conditions. A health, safety, environment and quality policy, or similar, could be used in conjunction with the environmental management plan. Operators and responsible personnel must be taught the contents of these documents. National regulations and guidelines must be adhered to and monitored regularly as outlined in the environmental management plan.

Conclusion

Based on the environmental assessment, there is no reason why exploration cannot continue within the EPL. The environmental management plan as presented in this document should be adopted and the contents kept up-to-date as legislation, equipment and operational methods and conditions change.

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LIST OF ABBREVIATIONS

AIDS Acquired Immune Deficiency Syndrome
BID Background Information Document

CBNRM Community-Based Natural Resource Management

CHIRPS Climate Hazards Group Infra-Red Precipitation with Station data version

CITES Convention on International Trade of Endangered Species

DEA Department of Environmental Affairs

DWA Department of Water Affairs

ECC Environmental Clearance Certificate
EIA Environmental Impact Assessment

EMA Environmental Management Act, 2007 (Act no. 7 of 2007)

EMP Environmental Management Plan
EMS Environmental Management System
EPL Exclusive Prospecting Licence
GDP Gross Domestic Product

GPT Geo Pollution Technologies (Pty) Ltd
HIV Human Immunodeficiency Virus
HSE Health, Safety and Environment

IAP Interested and Affected Party

IUCN International Union for Conservation of Nature

KWH Kilowatt Hour m/s Meter per second

mamsl Meters above mean seal level

MARC Minerals Ancillary Rights Commission

MAWLR Ministry of Agriculture, Water and Land Reform

mbs Meters below surface

MEFT Ministry of Environment, Forestry and Tourism

MERRA-2 Modern-Era Retrospective analysis for Research and Applications version 2

mm/a Millimetres per annum

NACSO Namibian Association of CBNRM Support Organisations

MME Ministry of Mines and Energy MSDS Material Safety Data Sheet

NASA National Aeronautics and Space Administration

NDPNational Development PlanNNFNamibia Nature FoundationPPEPersonal Protective Equipment

QDS Quarter Degree Square

SANS South African National Standards

UNCCD United Nations Convention to Combat Desertification
UNFCCC United Nations Framework Convention on Climate Change

uPVC
 VMN
 Wotorantim Metals Namibia
 WHO
 World Health Organization
 WWF
 World Wide Fund for Nature

GLOSSARY OF TERMS

Alternatives - A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.

Assessment - The process of collecting, organising, analysing, interpreting and communicating information relevant to decision making.

Biodiversity - The variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part.

Competent Authority - Means a body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.

Cumulative Impacts - In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Mineral Exploration – The process of searching for concentrated deposits of minerals for the ultimate purpose of mining for economic benefit.

Environment - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".

Environmental Assessment (EA) – Namibian terminology for a process of assessing the effects on the environment through either a scoping assessment or a combination of a scoping- and detailed assessment.

Environmental Management Plan (EMP) - A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

Environmental Management System (EMS) - An Environment Management System, or EMS, is a comprehensive approach to managing environmental issues, integrating environment-oriented thinking into every aspect of business management. An EMS ensures environmental considerations are a priority, along with other concerns such as costs, product quality, investments, PR productivity and strategic planning. An EMS generally makes a positive impact on a company's bottom line. It increases efficiency and focuses on customer needs and marketplace conditions, improving both the company's financial and environmental performance. By using an EMS to convert environmental problems into commercial opportunities, companies usually become more competitive.

Evaluation – Means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.

Hazard - Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.

Hyperspectral Imaging - A technique that captures and processes a wide spectrum of light beyond the visible range (which includes the colours humans can see). Unlike traditional imaging, which only captures three bands of colour (red, green, and blue), hyperspectral imaging divides the light spectrum into many more narrow bands, sometimes hundreds or even thousands, across wavelengths that include the ultraviolet, visible, and infrared regions.

Interested and Affected Party (IAP) - Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the

activity.

Land Owner – The rightful holder of the title deed of a portion of privately owned land, or in the case of communal land, the legal occupier of land and/or the Government of the Republic of Namibia.

Mineral - A natural substance with unique and distinctive physical and chemical properties. In terms of mining, "economic minerals" include metals and hydrocarbons.

Mitigate - The implementation of practical measures to reduce adverse impacts.

Proponent (Applicant) - Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act No. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment Forestry and Tourism.

Public - Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

Scoping Process - Process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

Significant Effect/Impact - Means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

Stakeholder Engagement - The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term "public participation".

Stakeholders - A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (IAPs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

Sustainable Development - "Development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs and aspirations" – the definition of the World Commission on Environment and Development (1987). "Improving the quality of human life while living within the carrying capacity of supporting ecosystems" – the definition given in a publication called "Caring for the Earth: A Strategy for Sustainable Living" by the International Union for Conservation of Nature (IUCN), the United Nations Environment Programme and the World Wide Fund for Nature (1991).

1 INTRODUCTION

Votorantim Metals Namibia (Pty) Ltd (VMN or the Proponent) is a prospecting company registered in Namibia. Through the Ministry of Mines and Energy (MME), VMN has exclusive prospecting licenses (EPLs) across Namibia, with a focus on base, rare and precious metals.

The Proponent, received an "Intention to Grant" from the Ministry of Mines and Energy in respect of their application for EPL 9972 in the Otjombinde Constituency of the Omaheke Region. The EPL will be granted to the Proponent upon successful acquisition of an environmental clearance certificate (ECC) for the EPL area, as indicated in Figure 1-1. The EPL is for base and rare metals, industrial minerals, precious metals and semi-precious stones. The EPL is located on communal land used for agricultural purposes. It mainly falls within the Otjombinde Communal Conservancy and Otjombinde Community Forest, with a small portion being located within the Omuramba Ua Mbinda Communal Conservancy and Omuramba Ua Mbinda Community Forest.

An ECC for the proposed exploration activities in the EPL area is required as per the Environmental Management Act, Act No. 7, of 2007 (EMA). The Proponent appointed Geo Pollution Technologies (Pty) Ltd (GPT), as independent environmental consultant, to assist with the necessary studies to determine the potential environmental impacts, and ultimately whether an ECC may be granted for this EPL. To achieve this, an environmental impact assessment (EIA) was undertaken to determine the potential positive and negative impacts of the Proponent's proposed exploration activities, on the environment. The results of this assessment are documented in this report, and it is accompanied by an environmental management plan (EMP) aimed at preventing or mitigating negative environmental impacts, while simultaneously promoting positive spinoffs from the project.

In terms of this study, the environment is defined as per the EMA's definition, as follows:

"land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values"

Project Justification – Namibia is rich in mineral resources, with large parts of the country remaining relatively unexplored. The Minerals (Prospecting and Mining) Act of 1992 declares that all natural resources, including minerals, are owned by the government. It further states that no reconnaissance operations, prospecting operations or mining operations may be carried out without a licence as issued under the Act. Therefore, the responsibility to find, and ultimately extract, mineral resources, lies with authorised licence holders who must adhere to all regulations governing prospecting and mining.

The mining sector is one of the main contributors to employment and Namibia's gross domestic product (GDP). While exploration activities do so to a lesser degree, mining cannot commence until exploration activities indicate feasible resources. Benefits of exploration therefore include:

- Employment, training and development of the Namibian workforce.
- Increased economic resilience of employees and contractors.
- Economic injection into the Namibian economy through the sourcing of goods and services, often with funds obtained from foreign investors.
- Generation of new knowledge on, amongst others, the local geology and ecology of the exploration area.
- Potential discoveries of feasible minable mineral resources.

<u>Note:</u> Since the EPL mainly overlaps communal land, the term "Land Owner" as used in this report refers to the legal occupier of land and/or the Government of the Republic of Namibia.

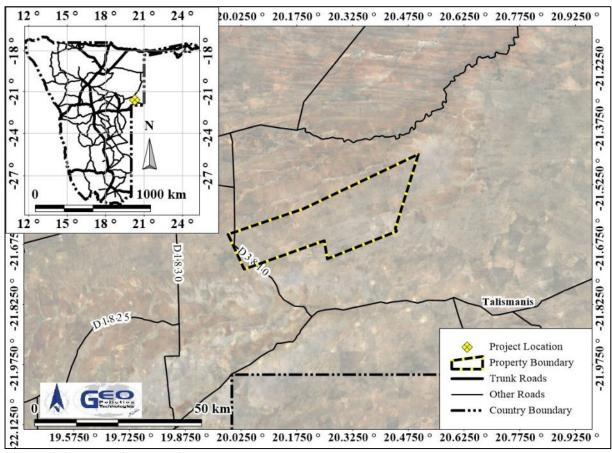


Figure 1-1 Project location

2 SCOPE

The scope of the environmental assessment is to, in compliance with Namibia's Environmental Management Act (2007):

- Provide a description of the proposed exploration activities.
- Provide an overview of the local environment within the exploration area.
- Determine the potential environmental impacts that may potentially emanate from exploration activities.
- Identify a range of management actions which could prevent or mitigate the potential adverse impacts to acceptable levels.
- Provide sufficient information to the Ministry of Environment, Forestry and Tourism (MEFT) and related authorities to make an informed decision regarding the exploration activities and the granting of an ECC and EPL.

3 METHODOLOGY

The following methods were used to investigate the potential impacts on the social and natural environment due to the proposed exploration activities:

- Baseline information about the site and its surroundings was obtained from existing secondary information as well as from primary information obtained during a reconnaissance site visit.
- As part of the scoping process to determine potential environmental impacts, interested and affected parties (IAPs) were consulted about their views, comments and opinions and these are put forward in this report.
- Based on gathered information and public and stakeholder consultation, an assessment of potential impacts was conducted and a management plan prepared.

4 PROJECT DESCRIPTION

Mineral exploration typically does not require any construction activities within the EPL. Project activities performed for purposes of exploring for the relevant commodities (base and rare metals, industrial minerals, and precious metals) include both off- and on-site activities. These are literature reviews, remote sensing, field surveys, geophysical surveys, geochemical sampling and exploratory drilling.

4.1 LITERATURE REVIEWS

Literature reviews, or desktop studies, are usually already started prior to applying for an EPL. Existing literature and scientific data are researched in order to determine whether a specific area is known to have minerals, or is likely to have minerals. Should the prospects be positive, an application for an EPL over the identified area is lodged. Literature reviews will continue once the EPL is granted, should additional literature and documentation become available.

4.2 REMOTE SENSING

Technological advancements in satellite imagery have revolutionised exploration activities and can provide a vast amount of information. It requires specialist manipulation and interpretation to determine the potential presence of minerals in a specific area. The simplest form is using standard satellite imagery and aerial photography to develop detailed geological maps, without having to be in the field. This way, surface structures prone to hosting mineral resources can be identified.

More complex methods of remote sensing also exist. For example, hyperspectral imaging can provide more detailed information by identifying specific minerals based on the spectral signatures they produce. A hyperspectral camera captures light from the earth's surface and separates it into its different wavelengths. Each pixel in the resulting image represents a specific spectrum of light, which is used to identify materials based on known spectral signatures.

Drone and aerial technology has also improved significantly over the last decade, and when equipped with geophysical survey equipment, provides detailed information in the subsurface structures such as geological structures, mineral deposits and voids. Drones, helicopters or aeroplanes can access areas where rough terrain makes entry by vehicle difficult, reducing intrusiveness, time and costs associated with traditional exploration methods.

4.3 FIELD SURVEYS

Through literature reviews and remote sensing, smaller areas of interest are identified within the EPL. In-field surveys will be carried out to focus on these areas of interest. It typically involves geologists studying the areas on foot. Any aboveground structures, rocks and features which could not be identified via remote sensing, are recorded and mapped. This complements the existing information gathered for the area and may further reduce the area of interest. Field surveys are not typically very invasive and destructive in nature.

4.4 GEOPHYSICAL SURVEYS

Some geophysical surveys can be achieved via remote sensing (e.g. ground penetrating radar) while others require field work. Examples of typical geophysical surveys that the Proponent may conduct are:

Electrical resistivity tomography: - This method produces a subsurface "image" by measuring electrical resistivity of the ground. It requires the placement of electrodes directly into the ground, either along a straight line or in a grid. A known electrical current is passed into the ground via a pair of electrodes and the voltage difference is measured between other pairs of electrodes. The voltage difference is then used to calculate the resistivity of the subsurface and is presented as a resistivity profile or tomogram. Based on known resistivity values of materials, the composition and properties of the subsurface can be inferred.

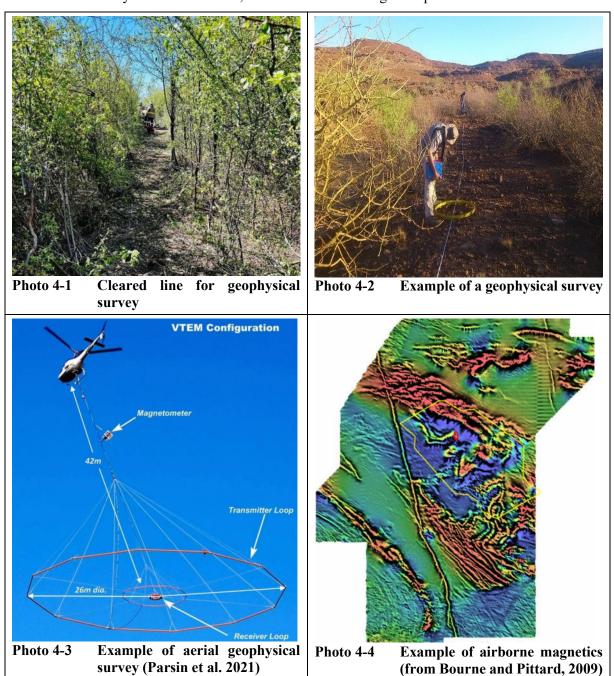
Induced Polarization: It is used to identify subsurface materials by measuring their electrical chargeability. As with electrical resistivity tomography, an electrical current is injected into the ground. Materials like sulphide minerals, clays and graphite become polarised (i.e. temporarily

store electrical charge). When the current is stopped, the stored charge is released and this is measurable as voltage decay.

Audio-Magnetotelluric Surveys: This method measures variations in natural electromagnetic fields to investigate the subsurface. Sensors placed on the ground measures the electric and magnetic fields and the results are used to calculate subsurface resistivity values. These in turn provide information on the different geological structures and materials.

For all three methods described, when conducted in the field, the survey area (line or grid) requires some vegetation clearing to allow access and expose bare ground for equipment placement. For electrical resistivity tomography and induced polarization, small-diameter holes must be made in the ground to insert the electrodes. Due to the extremely dense vegetation in the EPL area, coupled to the lack of roads, aerial geophysical surveys are likely to be performed. This will entail flying transects with a helicopter fitted with geophysical survey equipment, over the area (Photo 4-3).

Overall, these techniques are less invasive than exploratory drilling. Based on the results, the area of interest may be reduced in size, to focus on areas with greater potential for minerals.



4.5 GEOCHEMICAL SAMPLING

Geochemical sampling will entail the collection of soil and rock material from the surface or shallow subsurface. This may entail some shallow localised digging making use of manual labour. The Proponent does not make use of trenching. Samples are analysed for mineral content and provides valuable information on the potential presence of mineral resources.





Photo 4-5 Soil sampling

Photo 4-6 Meticulous record keeping

4.6 EXPLORATION DRILLING

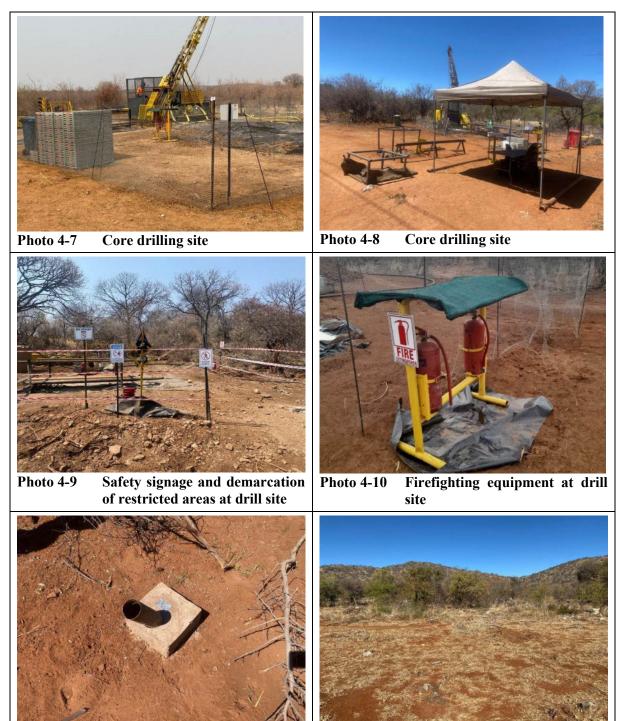
Once all the information from the above methods have been compiled and analysed, very specific areas may be targeted for exploratory drilling. Drilling will mainly be performed with a diamond core drill that may be self-propelled or mounted on a truck. The core drill extracts cylindrical samples (cores) from the subsurface which can be studied and analysed to understand the geology and presence of minerals at that specific location. Drilling can however, also be carried out using reverse circulation methods, which produce drill chips rather than cores.

Level drill pads will be created at each drill target to allow for placement of the drill rig (Photo 4-7 and Photo 4-8). The drill site will be fenced off with a temporary wire mesh fence. For diamond core drilling the hollow drill bit is impregnated with industrial grade diamonds for cutting through rock. As the drill bit is pushed into the ground, the core sample is collected in the hollow drill bit. Periodically the dill string is lifted to the surface, the core collected and stored in core trays, and detailed notes made on the depth at which the core was collected. Water or drilling fluid is circulated in the borehole to cool down and lubricate the drill bit. This ensures the longevity of the drill bit. The liquid expelled from the borehole is directed into a series of drilling fluid sumps where solids settle out and the relatively clean liquid from the last sump are re-used.

For reverse circulation drilling the drill rod is inside a tube and high pressure air generated by a compressor is forced down the space between the rod and tube. This forces drill cuttings and dust up the hollow drill string to the surface. At the surface dust is mostly blown away and the drill chips are collected in separate bags / containers corresponding to set depth intervals.

Restricted areas in the drill site will be demarcated with danger tape and signage to indicate dangerous areas. Support infrastructure at the drill camp will include a diesel bowser, possibly a compressor if reverse circulation drilling is conducted, a water tanker, spare parts and equipment, tents, portable toilets and showers, cooking facilities, firefighting equipment, etc. Once drilling is

complete, the borehole will be capped and marked (Photo 4-11). The area will be cleared of all infrastructure, waste products, etc., and the drill pad and surroundings will be ripped and contoured, if needed, to allow for easy re-establishment of vegetation (Photo 4-12). All roads not needed for future use by the landowner will also be rehabilitated. Vegetation re-growth is reliant on rain.



4.7 GENERAL

Borehole

Prior to any access to an EPL area, surface access agreements must be negotiated and signed with land owners. Such agreements will clearly stipulate the landowners' requirements and expectations. The first agreement will cover activities up to geophysical surveys and geochemical sampling. Should a target site for core drilling be identified, a new agreement will be reached

Photo 4-12

Photo 4-11

Rehabilitated drill site

with the land owner. Since EPL 9972 overlaps communal land of which ownership remains with government, and it is within registered communal conservancies, both the government and the lawful occupiers of the land will be consulted in terms of surface access agreements.

Four wheel drive vehicles, numbered and marked as being the property of the Proponent, will be used to transport staff to the site and back. Access to target areas on the farm will at all times be gained via existing roads. Where no roads are present, roads will be made as per agreements reached with land owners. Such roads will preferably be made by means of manual labour in order to reduce the impact on the soil. The Proponent's team will only access the farms during the day between 08:00 and 17:00 and only during pre-arranged schedules. In the eventuality of an emergency or delay, where the team will be on the land outside these hours, the land owner will be contacted. The Proponent's team will wear easily recognisable clothing with reflector vests.

The Proponent's staff will always make use of established off-site accommodation establishments, unless the landowner has such facilities available themselves, or if no nearby facilities exist. Only in the latter case, arrangements will be made with the land owner for a temporary accommodation camp on the farm. A temporary campsite may then be required in the drilling area.

Waste will be collected in designated bins (Photo 4-13) and removed on a regular basis. Waste will be transported to an approved municipal or designated dumping site. Where a bin is not available nearby during work (e.g. during field surveys), waste will be contained and taken directly to a bin when departing for the day. Spill kits for any hydrocarbons will be present at all times during drilling (Photo 4-14).

Mobile chemical toilets are used where a team is stationed in the same area for an extended period (e.g. at a camping site) (Photo 4-15). The contents of the toilets are collected in tanks and removed from the site for disposal at a designated sewage disposal area.

Water used for drilling will, if agreed upon, be obtained from the farmer. Where sufficient water is not available, a new borehole may need to be drilled or water will be carted to the site with a water tanker. Drinking water will be supplied by the Proponent.

Once drilling is complete, the boreholes will be cased and capped or it will be backfilled. All waste and infrastructure will be removed from site. The drill pad and surroundings will be ripped and contoured, if needed, to allow for easy re-establishment of vegetation. All roads not needed for future use by the landowner will also be rehabilitated.



Spilli Kit OIL Photo 4-14 Spill kit

EPL 9972 - EIA & EMP - 2025





Photo 4-16 Designated smoking area

Photo 4-15 Mobile toilet

5 ALTERNATIVES

5.1 LOCATION ALTERNATIVES

The project location (EPL area) is dictated by the suspected presence of mineral resources and as determined by the Ministry of Mines and Energy. Alternative locations in terms of the project location are not considered in this assessment. Within the EPL area, the Proponent can however consider alternatives, as far as is practical, in terms of the areas that may require clearing for geophysical surveys, roads, drilling pads, etc. Such alternatives will in part be limited by the target. If a target is within a very small footprint, geophysical surveys and drilling cannot be moved out of that footprint. However, roads leading to these areas, that may need to be cleared, should consider the avoidance of habitats with dense or unique indigenous or protected vegetation, avoiding areas with nests or burrows, as well as land owner preference.

5.2 EXPLORATION ACTIVITIES

The Proponent already implements various alternatives in their approach to exploration in order to reduce the potential impact on the environment and the land owners. These are summarised in Table 5-1. The assessment of impacts is based on the use of the preferred alternatives as presented. The preferred alternatives have further been incorporated into the EMP.

Table 5-1 Alternative comparison table

Alternative	Advantages	Disadvantages	Preferred Alternative
Method for Geophysic	cal Surveys		
In field surveys	Less expensive Equipment readily available	Clearing survey lines is time consuming	Aerial survey
Aerial surveys	Quick coverage of large areas No need for clearing dense vegetation	Expensive Noise can scare wildlife and livestock	
Clearing Method for Roads, Drill Pads, Etc.			
Bulldozer	Time saving Can easily clear and level difficult terrain Less labourers on site which may be favoured by land owner	Heavy machinery compacts ground (ecologically unfriendly) Less employment Fixed width of cleared area which may be wider than needed	Manual labour as far as is practically possible

Alternative	Advantages	Disadvantages	Preferred Alternative
Manual Clearing (Labourers with axes, spades etc.)	More employment Ecologically more friendly Can keep footprint of impact to a minimum	Time consuming More labourers on the land which may not be favoured by land owner More vehicle movement to transport labourers Not suited for very difficult or hard to reach areas	

6 ADMINISTRATIVE LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programmes and policies deemed to have adverse impacts on the environment require an environmental assessment, as per the Namibian legislation. The legislation and standards provided in Table 6-1 and Table 6-3 govern the environmental assessment process in Namibia and/or are relevant to the mineral resources exploration sector.

Table 6-1 Namibian law applicable to the project

Law Key Aspects		
The Namibian Constitution	 Promotes the welfare of people Incorporates a high level of environmental protection Incorporates international agreements as part of Namibian law 	
Act No. 7 of 2007, Government Notice No. 232 of 2007	 Defines the environment Promotes sustainable management of the environment and the use of natural resources Provides a process of assessment and control of activities with possible significant effects on the environment 	
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	 ♦ Commencement of the Environmental Management Act ♦ Lists activities that requires an environmental clearance certificate ♦ Provides Environmental Impact Assessment Regulations 	
Minerals (Prospecting and Mining) Act Act 33 of 1992, Government Notice No. 199 of 1992	 Provides for the reconnaissance, prospecting and mining for, and disposal of, and the exercise of control over, minerals in Namibia; and provides for matters incidental thereto Requires mining companies to obtain permission to access communal land for prospecting or mining 	
Soil Conservation Act Act No. 76 of 1969	◆ Law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources in Namibia	
Water Resources Management Act Act No. 11 of 2013	 Provides for management, protection, development, use and conservation of water resources Prevention of water pollution and assignment of liability Requires permitting for all borehole drilling activities in Namibia 	
Water Resources Management Act Regulations Government Notice No. 332 of 2023	 Regulations pertaining to the management, protection, development, use and conservation of water resources Provides for the regulation and monitoring of water services and to provide for incidental matters Requires permitting for all borehole drilling activities in Namibia 	
Forest Act (Act 12 of 2001, Government Notice No. 248 of 2001)	 Makes provision for the protection of the environment and the control and management of forest fires Provides the licencing and permit conditions for the removal of woody and other vegetation as well as the disturbance and removal of soil from forested areas 	

Law	Key Aspects
Forest Regulations: Forest Act,	♦ Declares protected trees or plants
2001	 Issuing of permits to remove protected tree and plant species
Government Notice No. 170 of 2015	• Provides the legal framework for the establishment and
Government Notice No. 170 of 2013	management of community forests
	♦ Emphasizes sustainable forest management and the
	involvement of local communities
National Heritage Act	 Provides for protection and conservation of places and objects
(Act No. 27 of 2004, Government	of heritage significance and the registration of such places and
Notice No. 287 of 2004, Government	objects.
Notice No. 287 of 2004)	
Civil Aviation Act	♦ Consolidate the laws relating to civil aviation and civil aviation
(Act No. 6 of 2016, Government	offences
Notice No. 137 of 2016)	 Provides civil aviation regulatory and control framework for
1100000 110. 137 01 2010)	maintaining, enhancing and promoting the safety and security
	of civil aviation for ensuring the implementation of
	international aviation agreements;
	Provides for the establishment of Namibia Register of Aircraft
	and the Civil Aviation Registry.
	Civil aviation regulations
Petroleum Products and Energy	Regulates petroleum industry
Act	Makes provision for licencing and safe storage and handling of
Act No. 13 of 1990, Government	fuels
Notice No. 45 of 1990	Petroleum Products Regulations (Government Notice No. 155
B.18 15 1	of 2000)
Public and Environmental Health	Provides a framework for a structured more uniform public and
Act	environmental health system, and for incidental matters
Act No. 1 of 2015, Government	Deals with Integrated Waste Management including waste
Notice No. 86 of 2015	collection disposal and recycling; waste generation and storage;
	and sanitation
Labour Act	◆ Provides for Labour Law and the protection and safety of
	employees
Act No 11 of 2007, Government	■ Labour Act, 1992: Regulations relating to the health and safety
Notice No. 236 of 2007	of employees at work (Government Notice No. 156 of 1997)
Communal Land Reform Act	Declares communal areas
Communal Land Reform Act	 Provides for the allocation of rights in respect of communal
Act No 5 of 2002, Government	land
Notice No. 137 of 2002	 Provides for the powers of Chiefs and Traditional Authorities
	and boards in relation to communal land
	• Subject to the provisions of this Act, all communal land areas
	vest in the State in trust for the benefit of the traditional
	communities residing in those areas and for the purpose of
	promoting the economic and social development of the people
	of Namibia, in particular the landless and those with
	insufficient access to land who are not in formal employment
	or engaged in non-agriculture business activities
	• No right conferring freehold ownership is capable of being
	granted or acquired by any person in respect of any portion of
	communal land
	♦ Allows the Minister to make regulations regarding the
	conditions, in addition to conditions imposed by or under any
	other law, under which prospecting or mining operations may
	be carried out on communal land
	♦ Supports the sustainable use of communal land
	11

	Key Aspects
Minerals Policy of Namibia	 Aims to achieve a high level of responsible development of national resources in which Namibia becomes a significant producer of mineral products while ensuring maximum sustainable contribution to the socio-economic development of the country. To attract investment and enable the private sector to take the lead in exploration, mining, mineral beneficiation and marketing. Government will provide the Minerals Ancillary Rights Commission (MARC) with clear guidelines on the process for access to land and the provision of compensation.
Nature Conservation Ordinance	Consolidates and amends the laws relating to the conservation
Ordinance No. 4 of 1975	of nature and the establishment of game parks and nature reserves
	 Assigns certain conservation categories to specific organisms within Namibia
Nature Conservation Amendment Act Act No 5 of 1996, Government Notice No. 151 of 1996	 Amends the Nature Conservation Ordinance, 1975, so as to provide for an economically based system of sustainable management and utilisation of game in communal areas Allows for the establishment of communal conservancies and conservancy committees Granting communities rights to manage and benefit from wildlife and other natural resources in their areas
Atmospheric Pollution Prevention Ordinance Ordinance No. 11 of 1976	 Governs the control of noxious or offensive gases Prohibits scheduled process without a registration certificate in a controlled area
	• Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process
Hazardous Substances Ordinance Ordinance No. 14 of 1974	 Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export Aims to prevent hazardous substances from causing injury, illhealth or the death of human beings
Pollution Control and Waste Management Bill (draft document)	 Not in force yet Provides for prevention and control of pollution and waste Provides for procedures to be followed for licence applications
Act No. 52 of 1999 Government Notice No 282 of 1999	 Provides for the control of traffic on public roads and the regulations pertaining to road transport
Road Traffic and Transport Regulations Government Notice No 53 of 2001	 Prohibits the transport of goods which are not safely contained within the body of the vehicle; or securely fastened to that vehicle, and which are not properly protected from being dislodged or spilled from that vehicle
National Policy on Community- Based Natural Resource Management (CBNRM)	 Provides a framework that promotes the wise and sustainable use of natural resources on State land outside Protected Areas Promotes integrated land and natural resource planning and decision making that considers the most appropriate land uses based on land capability, optimum economic return, environmental and human needs.

Table 6-2 Standards or codes of practise

Standard or Code	Key Aspects
South African National	 The Petroleum Products and Energy Act prescribes SANS
Standards (SANS)	standards for the construction, operations and demolition of petroleum facilities.
	SANS 10131 is specifically aimed at storage and distribution of petroleum products in aboveground storage tanks.
	 Provides requirements for spill control infrastructure.

Table 6-3 Relevant multilateral environmental agreements for Namibia related to the project

Agreement	Key Aspects
SADC Protocol on Mining, 1997	 Member states agree to share information on exploitable mineral resources in the region, enhance the technological capacity of the sector as well as promote policies that will encourage and assist small scale mining. Environmental and occupational health and safety issues are highlighted.
Stockholm Declaration on the Human Environment, Stockholm 1972.	 Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment
1985 Vienna Convention for the Protection of the Ozone Layer	 Aims to protect human health and the environment against adverse effects from modification of the Ozone Layer are considered Adopted to regulate levels of greenhouse gas concentration in the atmosphere
United Nations Framework Convention on Climate Change (UNFCCC)	♦ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention
Convention on Biological Diversity, Rio de Janeiro, 1992	◆ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity

Exploration is listed as an activity requiring an ECC as per Government Notice No. 29 of 2012. Ancillary activities related to exploration may also be listed as activities requiring ECCs. The following is a list of possible activities that the Proponent may engage in, in order to perform exploration.

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 resource whether regulated by a law or not.
- 3.3 Resource extraction, manipulation, conservation and related activities.

Forestry Activities

4 The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.

Additional national planning legislation considered include:

- ♦ National Development Plans (NDPs) and Vision 2030
- Namibia's Climate Change Strategy and Action Plan

Mining is a crucial component of Namibia's NDPs, particularly also in the country's long-term vision, Vision 2030. Its integration into the NDPs highlights its importance in achieving Namibia's broader economic and social goals. Some key aspects of mining in Namibia's overall development plan and vision include:

Economic Contribution: Mining contributes significantly to Namibia's GDP, export earnings, and employment. The sector is recognised as being vital for economic growth and diversification.

Strategic Focus: Previous NDPs and the upcoming NDP6, emphasise the development of the mining sector to ensure sustainable economic growth. Investment in mining is promoted and so is enhancement of value addition and environmental sustainability.

Policy Framework: Guiding principles for the development of the mining sector is present in the Minerals Policy of Namibia. It aims to create a conducive environment for investment, ensure the sector's sustainability, and maximise benefits for the Namibian people.

Recent Developments: The mining sector has seen promising developments, including establishment of new mines and the high prices of commodities like gold and uranium. These are expected to fuel further growth.

Since mining forms such a significant part of Namibia's economy, its integration into the Climate Change Strategy and Action Plan is crucial for sustainable development. Key aspects that feeds into this strategy are:

Sustainable Practices: The adoption of sustainable mining practices to minimise environmental impact is emphasised. This includes measures to reduce water usage, manage waste, and rehabilitate mining sites.

Renewable Energy: The use of renewable energy sources in mining operations are promoted. This will help to reduce greenhouse gas emissions while supporting Namibia's broader goal of increasing the share of renewable energy in its energy pool.

Community Resilience: Community-based adaptation programs are promoted with the aim of building resilience in local communities by supporting initiatives like agro-forestry, water conservation, and energy-efficient technologies.

Policy and Regulation: Policies and regulations to ensure that mining activities align with climate adaptation goals. This includes stringent environmental impact assessments and the enforcement of best practices in mining operations.

Research and Innovation: Research and innovation to develop new technologies and methods for more sustainable mining and resilience to climate change.

7 ENVIRONMENTAL CHARACTERISTICS

This section lists the most important environmental characteristics of the study area and provides a statement on the potential environmental impacts on each.

7.1 LOCALITY AND SURROUNDING LAND USE

The EPL area is 67,612.2195 ha in size and lies mainly in the southern portion of the Otjombinde Constituency of the Omaheke Region (Figure 7-1). Only about 380 ha (less than 1%) of the EPL's north-western corner is within the Okarukambe Constituency. The EPL is about 65 km north of the Namibia-Botswana border post, Buitepos, and 146 km northeast of the region's capital, Gobabis. Talismanus is the only declared settlement within the Otjombinde constituency (Photo 7-1). It hosts the constituency office, a clinic, a police station, a post office, an office of the Directorate of Agriculture, two schools, a fuel retail facility and a few small shops.

The EPL mainly overlaps communal land with about 148 ha (less than 0.5%) of the EPL overlapping the privately owned commercial farm, Credo (Figure 7-2). Based on information obtained from Mendelsohn and El Obeid (2002), the area where the EPL is located, and south of it, were surveyed and farms ranging between 4,000 and 6,000 ha were established and fenced in the 1950's (Figure 7-2). These farms were located in what was known as the Rietfontein Block. They were originally earmarked for use by white farmers, but the scarcity of water, and the remoteness of the area, resulted in only limited occupation of the farms. The farms were then handed over to Herero farmers who started settling in the area in 1966. Today, some of the farms are allocated to individual families, while groups of farmers occupy others. Only the north-eastern corner of the EPL does not overlap with surveyed farms. All the communal land, including the surveyed farms, belong to the Government of the Republic of Namibia in accordance with the Communal Land Reform Act 5 of 2002, with certain powers on its management belonging to chiefs and traditional authorities and councils. Three legally registered traditional authorities are present in the EPL area in the Otjombinde Constituency. These are the Ovambanderu Traditional Authority, Ovaherero Traditional Authority and the Hoveka Royal House.

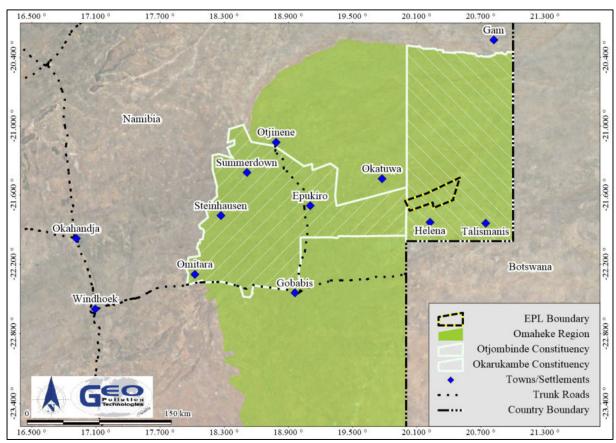


Figure 7-1 Location of EPL in context to the Omaheke Region

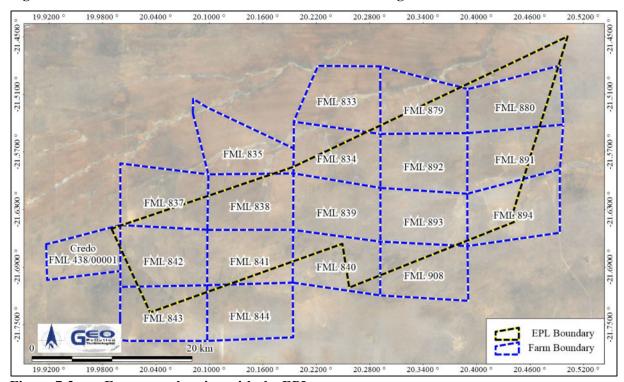


Figure 7-2 Farms overlapping with the EPL







Photo 7-2 Signage for the Ovambanderu traditional authority

Implications and Impacts

The EPL area mainly overlaps communal land. This necessitates surface access agreements to be reached between the Proponent, the Government, traditional authorities and legal occupiers of the land.

7.2 CLIMATE

A general lack of weather stations in Namibia, especially in rural areas, is problematic when attempting to get accurate climate data and descriptions for specific locations. Most of the weather stations that were operational in the mid to late 1900's have been closed. Climate descriptions are thus based on old measured data, crudely extrapolated for Namibia, and modelled data from satellite imagery. The following is thus a general description of the expected climatic conditions in the EPL area. Geographical features such as hills, river courses, low and high laying areas can significantly influence localised weather and especially temperatures. Data was extracted from the 2022 Atlas of Namibia unless otherwise specified (Atlas of Namibia Team, 2022).

According to the Köppen-Geiger Climate Classification system the project is located in a hot semi-arid climate (BSh) (http://koeppen-geiger.vu-wien.ac.at/present.htm). This means that the area receives precipitation below potential evapotranspiration, but not as low as a desert climate, and, has a mean annual temperature of at least 18°C.

Atlas of Namibia data indicates the average rainfall range as 350 to 400 mm/a within the EPL area. Variation in annual rainfall is between 40 to 50% which means rainfall is unpredictable. Monthly rainfall usually peaks in December, January, and February with on average 220 mm of the total rainfall occurring in these three months. A comparison of this data can be made with long term precipitation data obtained from the CHIRPS-2 database (Funk et al., 2015). The CHIRPS-2 dataset (Climate Hazards Group Infra-Red Precipitation with Station data version 2) consist of long-term rainfall data (1981 to near-present) obtained from satellite imagery and insitu station data and therefore represents more recent data. Data is averaged over an area of roughly 5 km by 5 km. This averaging effect should be kept in mind during data analyses as high rainfall from single thunderstorm cells would be averaged out, thereby providing a reduced daily maximum rainfall value. Due to the size of the EPL area, precipitation data for twenty-eight 25 km² areas were used. The precipitation data for the EPL area is presented in Table 7-1. The average annual precipitation for the EPL area over the last 43 years was calculated as 364.32 mm/a, with a coefficient of variance of 35.64%. The rainfall pattern correlates with the Atlas data. Heavier precipitation (single day events) occur between February, March, and April with a single event of 43.24 mm/25 km² in April (last 43 years data) being the highest total for the area. Maximum precipitation received over a 3-day period is 99.38 mm, indicating that heavy rainfall over long periods is not a common occurrence. Daily and seasonal precipitation data (Funk et al., 2015) is presented in Table 7-1 and in Figure 7-3. Figure 7-3 presents seasonal (July to June) total precipitation, centred on the average line for the last 43 years, with the daily total precipitation and the seasonal cumulative precipitation. It is clear that 6 out of the last 10 seasons received below average rainfall.

Potential evapotranspiration for the area is high at between 2,500 to 2,600 mm/a. By dividing the mean annual potential evapotranspiration into the mean annual precipitation, an aridity index value for the area was computed as 0.12, which indicates the area to be arid.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Minimum (mm/m)	16.35	16.39	8.82	10.61	0.00	0.00	0.00	0.00	0.00	0.00	10.55	11.18
Maximum (mm/m)	284.22	197.28	115.35	87.21	9.67	1.53	0.31	1.26	7.83	50.16	104.06	164.02
Average (mm/m)	82.41	74.87	53.64	30.39	1.39	0.15	0.02	0.06	1.33	14.30	39.16	63.34
Variability (%)	74.14	72.71	51.80	58.97	170.53	250.67	279.90	392.96	149.20	79.33	54.56	51.33
Daily Maximum (mm)	38.00	41.11	39.95	43.24	7.69	1.16	0.23	1.18	3.24	15.41	23.25	35.64
Average Rain Days	14.37	12.35	9.07	5.79	1.74	0.44	0.35	0.30	1.56	7.16	12.72	14.65
Season July - June average 364.32 Season coefficient of variation: 35.64 3 Day return period: 99.38										GEO		
Date range: 1981-Jan-01				to 2024-Jun-30 Lat: 21.618°S				•	Long: 20.248°E			
Number of	Statistic	cal de viati	on of the s	se as onal a	verage:	36	4.32 mm/a	±6.74 mr	n/a			

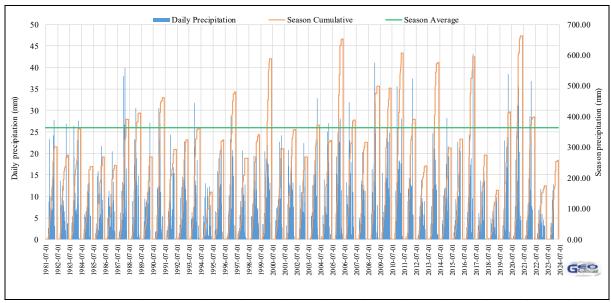


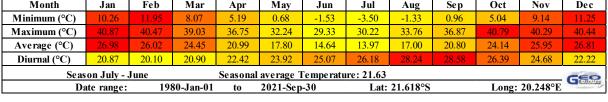
Figure 7-3 Daily and seasonal rainfall from CHIRPS-2 data (Funk et al., 2015)

Similar to precipitation data, temperature data is also lacking for the project area, with the Atlas of Namibia presenting only crude, large scale averages. To have an idea of temperatures in the area, monthly temperature data was retrieved from the Modern-Era Retrospective analysis for Research and Applications version 2 (MERRA-2) data set for a height of 2 m above surface (Ronald Gelaro, et al., 2017). This data set is a NASA atmospheric reanalysis, incorporating satellite data integration and aims at historical climate analyses at 0.5° x 0.625° spatial resolution. This translates to roughly 3,640 km², which still is a large area, but is somewhat less crude than the Atlas data.

Table 7-2 presents statistics of daily data abstracted from the MERRA-2 data set for the last 41 years. The lowest temperature of -3.5 °C was recorded in July, with sub-zero temperatures occurring relatively frequently in winter months. The average annual minimum temperature is 4.7 °C. A maximum temperature of 40.87 °C was measured in January, while the average annual maximum temperature is very high at 36.8 °C. The average annual temperature range is 25 °C, while the average diurnal temperature (difference between daily minimum and maximum temperature) for this area is around 24.1 °C. Direct normal solar irradiance for the area is 7.381 kWh/m²/day. Electricity generation with photovoltaic installations will thus be efficient in the area.

Figure 7-4 indicates modelled wind data that has been generated using satellite data. Localised conditions may see wind patterns being altered by localised topography. Strong winds are more frequent from the north-northeast to east-northeast, with less frequent, lower velocity winds from the north, east and east-southeast. South to westerly winds are infrequent and of low velocity (calm).

Table 7-2	Tempe	rature	statisti	cs base	d on M	erra-2	data (I	Ronald	Gelaro	, et al.,	2017)	
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Minimum (°C)	10.26	11.95	8.07	5.19	0.68	-1.53	-3.50	-1.33	0.96	5.04	9.14	11.25
Maximum (°C)	40.87	40.47	39.03	36.75	32.24	29.33	30.22	33.76	36.87	40.79	40.29	40.44
Average (°C)	26.98	26.02	24.45	20.99	17.80	14.64	13.97	17.00	20.80	24.14	25.95	26.81
Diurnal (°C)	20.87	20.10	20.90	22.42	23.92	25.07	26.18	28.24	28.58	26.39	24.68	22.22
Season July - June Seasonal average Temperature: 21.63										GSS		
						• •				-		Technologies



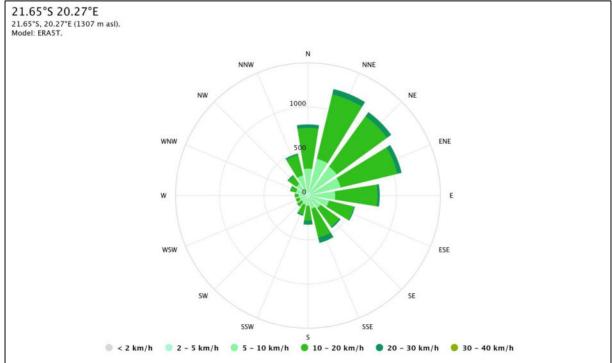


Figure 7-4 Average wind speed and direction (https://www.meteoblue.com)

Implications and Impacts

Rainfall events are often thunderstorms with heavy rainfall that can occur in short periods of time (cloud bursts). High intensity and erratic rainfall events may result in flash floods along the surrounding river courses and make driving conditions on gravel roads dangerous. Rainfall may result in the leaching of pollutants or hazardous substances into groundwater. Frequent high temperatures experienced in the area poses a risks to employees who can become dehydrated or get sunstroke. Sunburn is also a high risk as the solar radiation levels are high. Wind may carry dust and noise to nearby receptors.

7.3 TOPOGRAPHY AND DRAINAGE

The project overlaps the Kalahari Sandveld, a flat, basin of sedimentation, much of which is characterised by aeolian landforms, including linear dunes and pans. Dunes and pans occur in the southern and eastern parts of the EPL. The Kalahari Sandveld landscape formed through the accumulation of sand from river flow in a wetter climate during post Gondwana breakup. These sediments were reworked during a subsequent drier period. Today relict dunes remain at places from this former drier climate period.

Ground surface elevation in the EPL area ranges from 1,355 to 1,176 mamsl. The overall relief gently slopes to the northeast (Figure 7-5), creating a landscape that can be characterised as flat to undulating with slopes of less than 5° (Figure 7-6). Notably, there are no significant features such as hills or mountain sides in the EPL area, which contributes to its relatively even topography. The absence of prominent topographical features suggests minimal natural barriers to surface drainage and wind patterns, allowing for relatively uniform environmental conditions across the area. The primary surface drainage features surrounding the EPL is the Epukiro River and to a lesser extend the Rietfontein River, along with their tributaries (Figure 7-5). The Epukiro River cuts through the EPL area in a north-easterly direction. This resulted in two distinct watersheds or drainage areas that overlap with the EPL. The surrounding drainage system plays a crucial role in the region's hydrology, affecting the surface water flow and potential for runoff, which in turn impacts the local ecosystem and land use patterns.

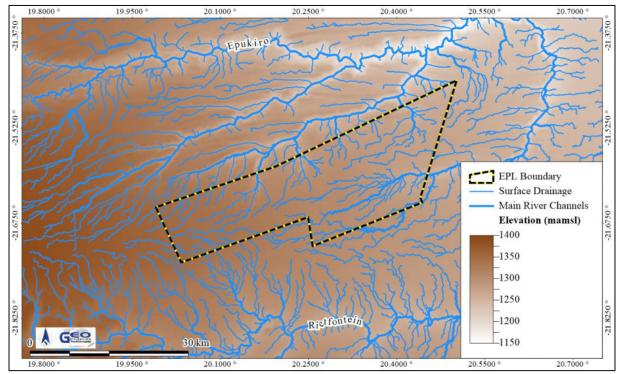


Figure 7-5 Elevation changes and surface drainage within the EPL area

Implications and Impacts

Surface water runoff can act as a transport medium for pollutants or hazardous substances. Due to the flat land surface, very little runoff will occur and pollutants will likely infiltrate into the subsurface.

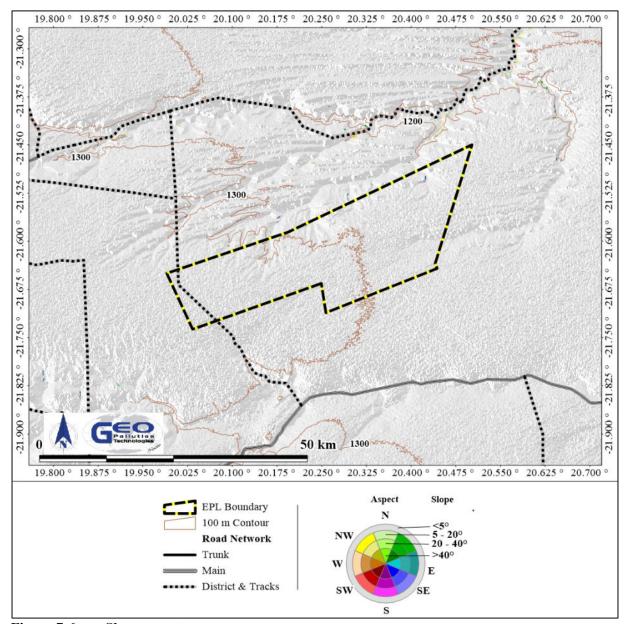


Figure 7-6 Slope-aspect map

7.4 GEOLOGY

The dominant soil type for the EPL area is Sideralic Arenosol (Figure 7-7). Arenosol refers to the soil type that is a deep, loose, windblown sand with poor water storage and nutrient levels. In addition to this, the Arenosol of this particular area is known for having Sideralic properties, which means it has a low cation exchange capacity of less than 7 cmol/kg, and thus do not retain nutrients well. Along the few better developed drainage lines, Arenic (sandy) Fluvisols are present as a result of alluvial deposition.

The composition of soil in this area is roughly 85-90% sand, 5-10% silt and 10-15% clay which gives it the characteristics and texture of loamy sand soil. Bulk density is 1,400 to 1,450 mg/cm³ which means that the soil has the ideal density for plant growth, but is limited by poor water and nutrient retention. Soils in this area typically reach depths of more than 190 cm and have a pH of 5.5 to 6. Furthermore, this region has a water capacity of 100-120 mm at root depth.

The geology underlaying the EPL area ranges from the Namibian Age (Damara Sequence) to Late Cretaceous- to Quaternary Age (Kalahari Group). Quaternary Age deposits comprise of Kalahari sediments which includes sand, calcrete and gravel. These Kalahari sediments originated mainly from fluvial deposition and were reworked through aeolian processes. The thickness of the Kalahari sediments is expected to range from 50 to 100 m in the region (Klock, 2001). Some of

the Kalahari sediments are partly cemented with calcium carbonate to form lime cemented sandstones and calcrete. It is these rocks that will take part in the soil forming processes and should not be confused with the deeper laying rocks as discussed below.

There is an unconformity between the Kalahari sediments and the older underlaying Damara formations. The Damara Sequence is divided into various tectonostratigraphic zones and it is inferred from literature that the EPL area is likely located within the Southern Foreland of the Damara Sequence. Note that the relative thick Kalahari sediment cover in the area makes interpretation of the tectonostratigraphic zoning in the area uncertain. The Southern Foreland represents one of the foreland basins of the Damara Belt, separated from the Southern Margin Zone by a frontal thrust (Miller, 2008), and is characterised by thrusting and folding, resulting in northeast trending anticlines and synclines. Locally the Damara Sequence comprises of undifferentiated feldspathic quartzite, schists, conglomerates and / or marbles of the Kamtsas Formation (Nka_uc) which forms part of the Nosib Group.

This Damara fold belt overprints Mesoproterozoic volcanic and intrusive rocks. A zone of roughly 1,000 km long and 250 km wide, also referred to as the Kalahari Copper Belt occurs discontinuously from western Namibia and stretches into northern Botswana along the north-western edge of the Paleoproterozoic Kalahari Craton. The belt contains mainly copper mineralisation, which is generally strata bound and hosted in metasedimentary rocks that have been folded and metamorphosed to greenschist facies (Lehmann et al., 2014).

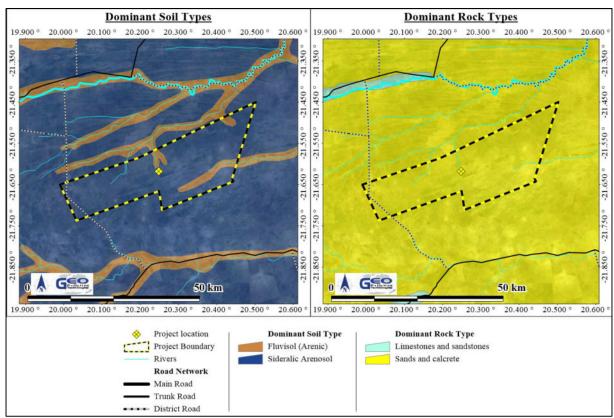


Figure 7-7 Soils and rock types

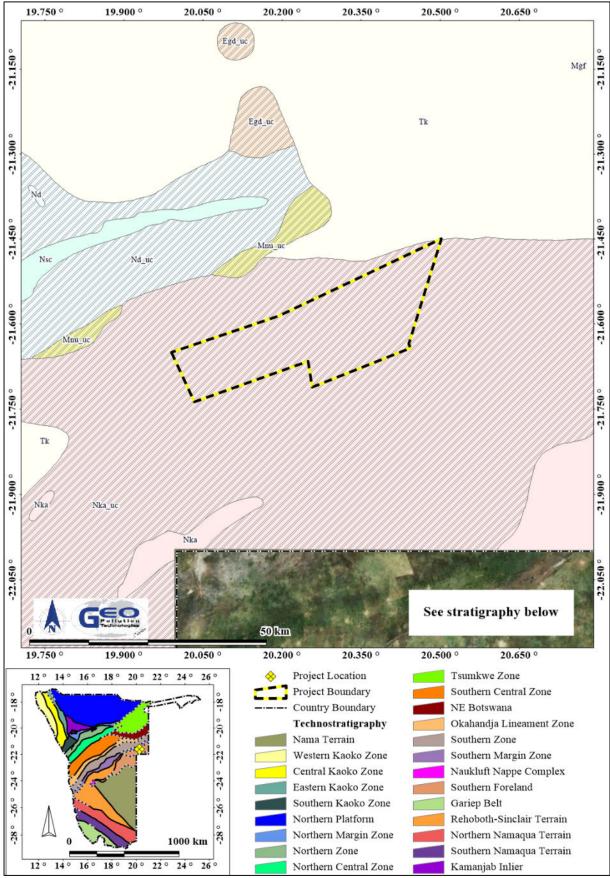


Figure 7-8 Geology

Table 7-3 Stratigraphy

Age	Lithcode	Sequence	Group	Formation	Rocktypes	Remarks
Quaternary	Tk		Kalahari		Sand, calcrete, gravel	
and Tertiary						
Cambrian	Egd_uc/				Granite	Undifferentiated Damara
						Granite/Suboutcrop below Tk, Qn and other
						superficial deposits
	Nsc	Damara	Swakop		Marble, schist, quartzite, calc-silicate,	Undifferentiated Lower Swakop Group
Namibian					graphitic schist	
	Nka_ye	Damara	Nosib	Kamtsas	Quartzite, conglomerate, schist, marble	Suboutcrop below Tk, Qn and other
						superficial deposits
	Nka	Damara	Nosib	Kamtsas	Quartzite, conglomerate, schist, marble	
	Nd_uc/	Damara			Schist, marble, quartzite, conglomerate,	Undifferentiated Swakop and Nosib
					graphitic schist	Groups/Suboutcrop below Tk, Qn and other
						superficial deposits
	Nd	Damara			Schist, marble, quartzite, conglomerate,	Undifferentiated Swakop and Nosib Groups
					graphitic schist	
	Mnu ye	Sinclair		Nuckopf	Rhyolite, ignimbrite, conglomerate,	Suboutcrop below Tk, Qn and other
Mokolian					quartzite, shale, basalt	superficial deposits
	Mgf				Granite, granodiorite	

7.5 Hydrogeology

The EPL falls outside a water control area, but forms part of the Omaheke Groundwater Basin (Figure 7-9). It should be noted that this groundwater basin is more of a management basin and does not strictly follow groundwater basin boundaries. Groundwater Basin committees will be formed under the Water Resources Management Act, Act No. 11 of 2013. It will likely give more powers to groundwater users in a basin to ensure sustainability of groundwater usage, but also encourage the optimal usage of groundwater. The Act requires that all boreholes be registered and that permission to drill be obtained prior to drilling. Groundwater abstraction and effluent disposal are also regulated.

Local groundwater flow is expected to take place through primary porosity in the surface cover (Kalahari Group), while it is expected to flow along fractures, faults, dykes/mineralised faults or along contact zones and other geological structures (secondary porosity) present within the underlaying Kamtsas Formation. Regional groundwater flow is expected to be into a south-easterly and into a north-easterly direction, with the EPL being located on a local groundwater divide (Figure 7-9). It should be noted that groundwater in the area is part of aquifers shared between Namibia and Botswana.

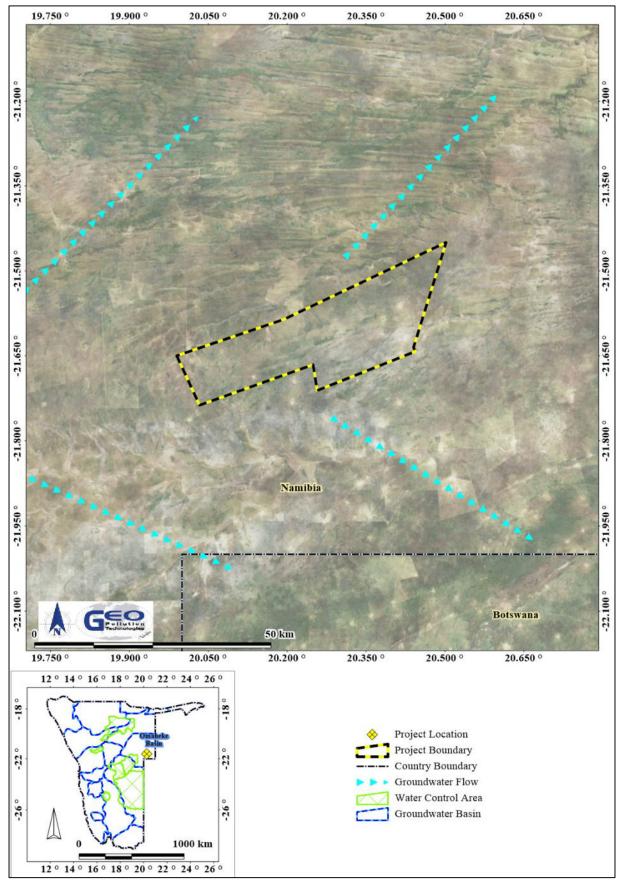


Figure 7-9 Groundwater basins and water control areas

Table 7-4 presents groundwater statistics for 34 boreholes in a 5 km radius around the EPL. The groundwater information was obtained from Department of Water Affairs (DWA) borehole database. This database is generally outdated and more boreholes might be present. The average

depth of 27 of the boreholes is 229.81 m below surface and the average yield of 23 of the boreholes ranges between 0.1 and 4.4 m³/h. The average groundwater level of 7 of the known boreholes is 134.71 m below surface, ranging between 97.00 and 164.00 m below surface.

The data summarised in Table 7-4 was presented graphically in Figure 7-10. From the information presented it is concluded that an increase in depth, marginally increases the borehole yields, especially when depths exceeds 200 m below surface. Regionally, it is observed that most of the water quality analysis falls in the Group A category, with limited exceptions being recorded in the Group B concentrations for total dissolved solids and sulphate (only one recorded in Group C) at depths greater than 200 m below surface. It is further interpreted that all water strikes took place within the underlaying Damara Sequence formations.

Table 7-4 Groundwater statistics

Table 7-4 Ground					_						
GEO Pollution Technologies	DEPTH (mbs)	YIELD (m ³ /h)	WATER LEVEL (mbs)	TDS (ppm)	SULPHATE (ppm)	NITRATE (ppm)	FLUORIDE (ppm)				
Data points	27	23	7	7	7	3	7				
Minimum	150.00	0.10	97.00	327.00	31.00	1.00	0.50				
Average	229.81	1.32	134.71	816.43	347.57	1.70	0.63				
Maximum	307.00	4.40	164.00	1,505.00	770.00	3.10	0.90				
Group A	0.00%	0.00%	0.00%	57.14%	42.86%	100.00%	100.00%				
Limit	50	>10	10	1000	200	10	1.5				
Group B	0.00%	0.00%	0.00%	28.57%	42.86%	0.00%	0.00%				
Limit	100	>5	50	1500	600	20	2.0				
Group C	37.04%	34.78%	14.29%	14.29%	14.29%	0.00%	0.00%				
Limit	200	>0.5	100	2000	1200	40	3.0				
Group D	62.96%	65.22%	85.71%	0.00%	0.00%	0.00%	0.00%				
Limit	>200	< 0.5	>100	>2000	>1200	>40	>3				
34 known boreholes within the project area and a 5 km buffer around the area											

Statistical grouping of parameters is for ease of interpretation, except for the grouping used for sulphate, nitrate and fluoride, which follow the Namibian guidelines for the evaluation of drinking-water quality for human consumption, with regard to chemical, physical and bacteriological quality. In this case the groupings has the following meaning:

Group A: Water with an excellent quality

Group B: Water with acceptable quality

Group C: Water with low health risk

Group D: Water with a high health risk, or water unsuitable for human consumption.

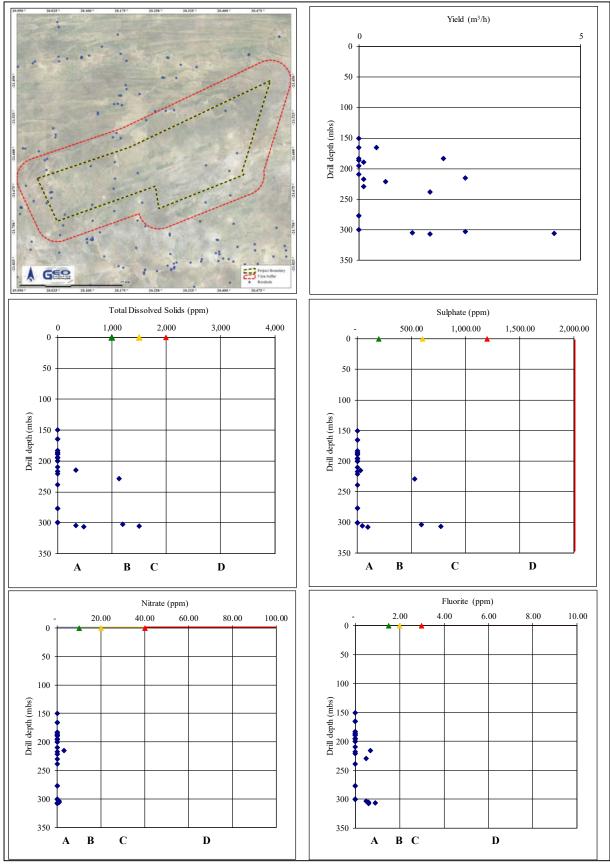


Figure 7-10 Water quality of boreholes in the area

Implications and Impacts

Groundwater is utilised in the area and such users would be at risk if pollution of the groundwater takes place. Permeable soil and areas with shallow groundwater levels makes the groundwater vulnerable to pollution.

There is no indication of multilayer aquifers that would be intersected if exploration drilling is to take place. Care should be taken that water intersected is not allowed to flow out into the Kalahari sediments and where it happens such boreholes should be properly sealed with either back cementation or through the installation of casing that would prevent such leakage.

7.6 PUBLIC WATER SUPPLY

Water supply in all areas intersected by the EPL is from boreholes. As discussed in section 7.5, such groundwater sources are however low yielding and very deep. Land owners in the area also indicated that the availability of water is a limiting factor in terms of agricultural potential in the area. Furthermore, due to the sandy soils with rapid infiltration rates, surface water after high rainfall events only remain for short periods of time. Pooling in the few river beds within the EPL does indicate slightly longer presence of surface water that can be utilised by livestock and game.

There are no water supply schemes within 5 km around the EPL for town or village supply.

Implications and Impacts

Public water supply may be impacted if groundwater contamination or over abstraction takes place. Exploration does however not require large volumes of water. Should exploration drilling occur, the land owners can benefit from the borehole log information, to more accurately determine where groundwater exploration can potentially be targeted.

7.7 ECOLOGY

7.7.1 Conservation Status

The EPL is located within two registered communal conservancies, both also being declared community forests (Figure 7-11). These are the Otjombinde and Omuramba Ua Mbinda Communal Conservancies and Community Forests, although only a small section of the EPL overlaps with the northern Omuramba Ua Mbinda Communal Conservancy and Community Forest. Each area has a conservancy and community forest committee in charge of management and performing tasks such as game counts and reporting of human-wildlife conflict. Together, communal conservancies and community forests aim to empower local communities to sustainably manage and benefit from the natural resources within these areas. In Namibia, they play an important role in environmental conservation and the promotion of biodiversity. Activities, such as farming, are not excluded from conservancies and community forests, but it aims at also attracting tourism into the area to create additional economic benefits and opportunities. For the Otjombinde and Omuramba Ua Mbinda Conservancies and Community Forests, these benefits have not realised yet, mainly due to the remoteness of the area and the fact that they are far off the popular tourist routes. Possibly also because they have very limited wildlife and the lack of accommodation establishments and related hospitality and tourism services.



Photo 7-3 Signage on M0119 road

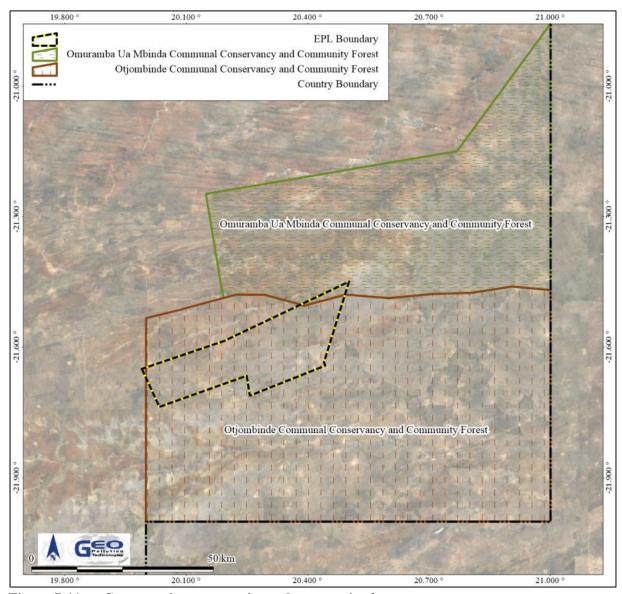


Figure 7-11 Communal conservancies and community forests

7.7.2 Vegetation

The EPL is located in the tree and shrub savanna biome, on the transition zone between the Acacia and broad-leafed savanna sub-biomes. The main vegetation type in the Acacia savanna is classified as central Kalahari with the north-eastern corner of the EPL, falling in the broad-leafed savanna, being the Northern Kalahari vegetation type (Atlas of Namibia Team, 2022) (Figure 7-12). The EPL area is uniformly located in the Zambezian domain floristic group.

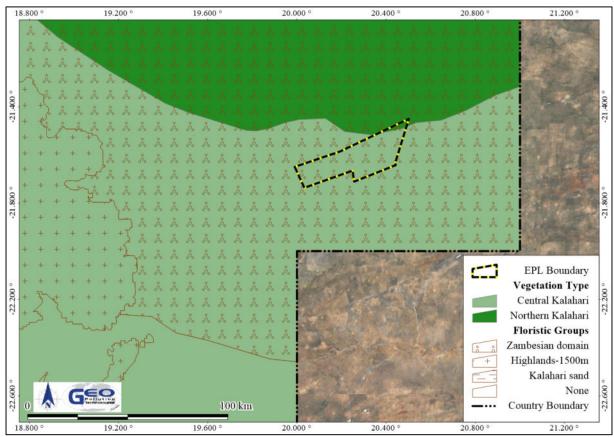


Figure 7-12 Vegetation type and floristic group (Atlas of Namibia Team, 2022)

Vegetation in Namibia is characterised by low species richness, but high endemism, in the west to south, while species richness increase to the northeast, with a decline in the number of endemics. The relatively homogenous physical characteristics of the EPL area (i.e. topography, soils, etc.) resulted in relatively homogenous vegetation. It is dominated by trees like *Terminalia sericea* (silver cluster-leaf or "geelhout" (Photo 7-4), *Ziziphus mucronata* (Buffalo-thorn), *Dichrostachys cinerea* subsp *Africana* (sickle-bush) (Photo 7-6) and various *Acacia* species like *A. mellifera* subsp *detinens* (blue-thorn Acacia), *A. hebeclada* (candle-pod acacia) (Photo 7-7), *A. luederitzii* var *luederitzii* (Kalahari Acacia) and *A. fleckii* (Sand-veld Acacia). These trees and other vegetation forms such dense stands in certain areas, that it is almost impossible to go in on foot, and access is only possible in the few and far apart gravel tracks leading to homesteads (Photo 7-8).

Due to the remoteness of the area, very few biodiversity surveys or records exist. The Tree Atlas of Namibia lists tree data for only one of the quarter degree squares covered by the EPL, namely QDS 2120CA. A total of 31 trees are listed as presented in Appendix A. Four are listed as protected by forestry legislation, namely A. erioloba (camel-thorn), Boscia albitrunca (Shepherd's tree), Burkea Africana (burkea) and Z. mucronata. Two, A. mellifera subsp detinens and D. cinerea subsp africana are both invasive species. During the site visit to the EPL and surrounding areas, the dominant species observed was Terminalia sericea with A. mellifera subsp detinens occurring in very dense stands in many areas. The latter indicating invasion by this species, likely due to overgrazing. Numerous, very large and healthy A. erioloba trees occur throughout the EPL and surrounding areas. Where areas previously cleared of trees and bush were encountered, grasses were much more prevalent, as opposed to dense bush areas where very little grass cover could be observed.

The 2002 Atlas of Namibia (Atlas of Namibia Team, 2002) indicate total plant species richness for the EPL area as between 100 and 150 species. Lower species richness corresponds with Namibia's trend of lower richness at lower latitudes. No endemic plant species are known to occur in the EPL area. This also corresponds with the overall trend of reduced endemicity towards the east and northeast.

Of note is the occurrence of *Harpagophytum procumbens* (devil's claw) and *Tylosema esculentum* (morama beans) (Photo 7-7). Both are beneficial plants that are harvested by locals. Devil's claw however is more abundant further north of the EPL area and harvesting of devil's claw does not constitute a viable industry in the EPL area. Devil's claw is harvested and sold to be manufactured into a herbal supplement with medicinal properties. The Marama bean is a protein rich food source harvested in the Kalahari and can be consumed in a variety of forms including whole roasted, boiled and ground to a flour.

Within the EPL area the alien species *Melia azedarach* (Syringa) were observed, typically at homesteads. Although not observed in the EPL, a few *Eucalyptus* spp. and many stands of a cactus species (Photo 7-10), possibly *Echinopisis pachanoi* (San Pedro cactus) or *Lophocereus marginatus* (the fence post cactus) were frequently encountered throughout the area.

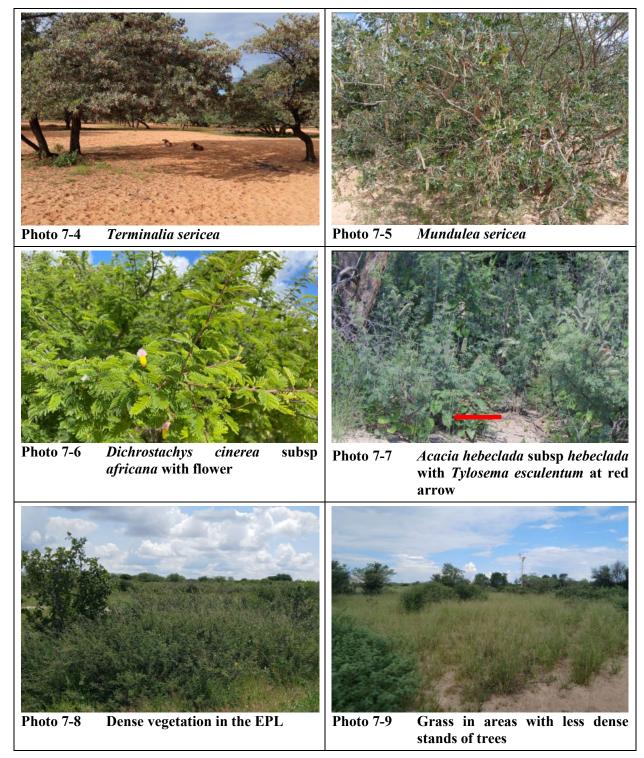




Photo 7-10 Unidentified cactus species

7.7.3 Wildlife

The 2022 Atlas of Namibia indicates the potential presence of approximately 192 to 247 vertebrate species in the EPL area (Table 7-5) (Atlas of Namibia Team, 2022). With the EPL overlapping communal conservancies and community forests, as well farmland with only a few homesteads, one would expect to see various animals, including large game, in the EPL. However, during the site visit conducted in March 2025, no large game were observed. The only mammals observed were ground squirrels (Xerus sp.), chacma baboons (Papio ursinus) and warthogs. The lack of wildlife is also reflected in the 2023 Annual Conservancy Performance Ratings and Audit Report for the two conservancies (NACSO Working Groups 2023). It lists the black-backed jackal (Canis mesomelas) as the only common animal among a selection of animals. All others are listed as uncommon (duiker (Sylvicapra grimmia)), rare (oryx (Oryx gazelle), kudu (Tragelaphus strepsiceros) and springbok (Antidorcas marsupialis)) and very rare (elephant (Loxodonta africana), giraffe (Giraffa camelopardalis) and ostrich (Struthio camelus). In terms of predators, spotted hyenas (Crocuta crocuta), cheetahs (Acinonyx jubatus), leopards (Panthera pardus) and African wild dogs (Lycaon pictus) are encountered in the area. The animal responsible for most human-wildlife conflict incidents is the blacked-backed jackal, followed by leopard, cheetahs, hyenas and other predators like wild dogs and wild cats. These animals are mainly responsible for livestock loss. On the rare occasion when elephants enter the area, mainly from Botswana, damage to water infrastructure and crops sometimes occur.

Birdlife in the area is richer and bee-eaters (*Merops sp.*), rollers (*Coracias sp.*), red-billed francolins (*Francolinus adspersus*), Southern yellow-billed hornbills (*Tockus leucomelas*), Namaqua sandgrouse (*Pterocles namaqua*) and various raptors were among the birds observed.

Table 7-5 Potential species richness of vertebrate taxa in the EPL area (Atlas of Namibia Team, 2022)

Taxa	Number of Species
Mammals	61-75
Reptiles	41-50
Birds	81-110
Amphibians	9-12



Photo 7-11 Lizard observed in the EPL



Photo 7-12 Southern yellow-billed hornbill observed in the area

Implications and Impacts

Some protected tree species occur in the EPL. These, together with bird nests they (and other trees) may contain, may be damaged during exploration activities. Poaching of the already small populations of wildlife is a concern. Encounters with venomous or dangerous animals (e.g. snakes, leopard, etc.) may pose a danger to the Proponent's staff.

7.8 DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

The project is mostly located in the south of the Otjombinde Constituency of the Omaheke Region. Based on the preliminary results of the 2023 census, the Region has a population of 102,881 and the constituency 9,041 of which 5,119 are male and 3,922 are female. The constituency has a density of 0.477 people/km² (National Planning Commission, 2023). The unemployment rate of the Otjombinde Constituency is 43.5% for persons 15 years and older, which is much higher than the regional rate of 30.3% and the national rate of 36.9%. In the Omaheke Region, agriculture is by far the sector providing the most jobs. In the Otjombinde Constituency, cattle, sheep and goat farming constitutes the main economic activity, with limited cultivation of crops, mainly for personal use.

Talismanus is the main settlement in the Constituency. It offers basic amenities, shops with limited groceries and goods, fuel, tyre repair services etc. It has a primary and secondary school, clinic, post office, police station and one accommodation establishment. Just outside the EPL, on the eastern side, is the Donkerbos Primary School which serves mainly the San community of the area

Cellular reception in the EPL area is basically non-existent. No formal infrastructure such as well-maintained roads, electricity supply, sewers, etc. exist, save for the D3813 district road traversing the EPL's western side from south to north. The EPL area is only accessible by four wheel drive vehicle and very few tracks where bush have been cleared are present in the EPL. Upgrading to low volume seal of the D1776 and M119 roads, from the B6 to Talismanus, are underway. This will contribute significantly to easing accessing of the area, especially during the wet season.

Implications and Impacts

Unemployment and poverty in the Omaheke Region moderately compared to some of the other regions. Prospecting in the area may provide some economic benefits to the landowners. Especially if someone can provide housing and accommodation to the proponents work force. Conversely, foreign people present on the farms, and the prospects of the eventual possibility of mining on the farms, causes anxiety among farm owners who are afraid of losing their livelihoods (e.g. livestock farming) and/or farms to mining companies. The presence of prospecting teams may result in an increase in social ills, deviant behaviour and criminal activities in the area. These not necessarily instigated by the team members, but by persons approaching the exploration team for illicit activities or posing as members of the exploration team.

7.9 CULTURE, HERITAGE AND ARCHAEOLOGY

The 2022 Atlas of Namibia (Atlas of Namibia Team, 2022) produced maps indicating the potential densities of archaeological sites in Namibia, by extrapolating the available data for all recorded archaeological sites. These maps were produced for archaeological sites dating back to the last 2,000 years, between 2,000 and 10,000 years ago, and 10,000 to 1.8 million years ago. Based on these maps, there are no known archaeological sites or objects, nor any declared national heritage monuments or sites present within or near the EPL. Similarly, no known rock art is present within the EPL. No such or other important sites were identified during the public consultation process. Some buildings or structures may be older than 50 years, which, under the National Heritage Act, may hold archaeological, architectural, cultural, historical, scientific or social significance and may be considered for inclusion in the National Heritage Register. No buildings or structures observed during the site visit had any unique, historic characteristics with obvious, inherent heritage value.

During the site visit no graves and graveyards were observed in the EPL. This does however not mean that graves or other important artefacts are not present. Some families do bury the deceased near their homesteads, often in unmarked graves. Usually they are however buried at the villages they originate from. The historic presence of San in the Kalahari, and also the area where the EPL is located, increase the possibility that some artefacts of archaeological significance may be present in the EPL area.

In terms culture, the Herero are traditionally cattle-herding pastoralists. Cattle is their most valuable possession. Herero women wears colourful dresses with iconic fabric headwear resembling the horns of cows. In Herero culture the leadwood tree, *Combretum imberbe*, (omborombongo in Herero) is considered a holy tree.

Implications and Impacts

Although no archaeologically significant sites such as rock art, signs of human habitation or unmarked graves were found during the site visit, and land owners also did not mention the presence of any of these, there still remains a chance that such artefacts may be present within the EPL.

8 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment investigation and enables interested and affected parties (IAPs) e.g. neighbouring landowners, local authorities, environmental groups, civic associations and communities, to comment on the potential environmental impacts associated with project and to identify additional issues which they feel should be addressed in the environmental assessment.

Public participation for such large project areas, overlapping many parcels of land with different land owners and/or inhabitants, can be challenging. Mainly because it is not easy to identify all land owners and get the contact details of those who are successfully identified. For EPL 9972, another challenge is the fact that it is in communal land, in a relatively remote area, where there are no maps indicating different tracks leading to different homesteads. Furthermore, many of the farmers do not stay on their respective portions, but visit the areas sporadically.

To reach the target community for EPL 9972, various methods and processes were followed. It was also a combined public participation process between EPLs 9972, 9973, 9974 and 9975, as all four are located within the Otjombinde Constituency. The main avenue used to reach target communities was the Otjombinde Constituency Council. An introductory meeting was conducted with members of the council, officials of the Ministry of Environment, Forestry and Tourism (Gobabis office), and representatives of the Hoveka Royal House and Ovambanderu Traditional Authority. See Appendix B for proof of public consultation and the minutes of meetings.

Public participation notices were then advertised for two weeks in two national newspapers, namely the New Era and The Namibian, on the 3rd and 10th of March 2025. Site notices were placed on the side of the D3810 road, at the Helena Primary School and at the clinic and service station in Talismanus. Two

public meetings were conducted, one in Talismanus on the 12th of March and one on the 13th of March in Helena.

See Appendix B for proof of the public participation processes and minutes of the meetings. No major concerns regarding the project were raised during the public consultation phase. The main concern was that the exploration team will access the area unannounced and without the people knowing about them. Members of the community expressed the need for the dissemination of information and asked if job opportunities will be available and what benefits will there be for the local community.

9 IMPACT ASSESSMENT AND MANGEMENT OF IMPACTS

The purpose of this section is to identify and assess the most pertinent environmental impacts that are expected from the exploration activities of the Proponent. An EMP outlining preventative and mitigating measures, based on these identified impacts, is also incorporated into this section. Where impacts are positive in nature, enhancement measures are proposed to maximise the potential benefits.

For each impact an environmental classification was determined based on an adapted version of the Rapid Impact Assessment Method (Pastakia, 1998). Impacts are assessed according to the following categories: Importance of condition (A1); Magnitude of Change (A2); Permanence (B1); Reversibility (B2); and Cumulative Nature (B3) (see Table 9-1). Define reversibility and permanence Ranking formulas are then calculated as follow:

Environmental Classification = $A1 \times A2 \times (B1 + B2 + B3)$.

The environmental classification of impacts is provided in Table 9-2.

The probability ranking refers to the probability that a specific impact will happen following a risk event. These can be improbable (low likelihood); probable (distinct possibility); highly probable (most likely); and definite (impact will occur regardless of prevention measures).

Table 9-1 Assessment criteria

Criteria	Score
$Importance\ of\ condition\ (A1)-assessed\ against\ the\ spatial\ boundaries\ of\ human\ in\ affect$	terest it will
Importance to national/international interest	4
Important to regional/national interest	3
Important to areas immediately outside the local condition	2
Important only to the local condition	1
No importance	0
$\begin{tabular}{ll} Magnitude of change/effect (A2) - measure of scale in terms of benefit / disbenefit or condition \end{tabular}$	of an impact
Major positive benefit	3
Significant improvement in status quo	2
Improvement in status quo	1
No change in status quo	0
Negative change in status quo	-1
Significant negative disbenefit or change	-2
Major disbenefit or change	-3
Permanence (B1) – defines whether the condition is permanent or temporary	
No change/Not applicable	1
Temporary	2
Permanent	3
Reversibility (B2) – defines whether the condition can be changed and is a measure over the condition	of the control
No change/Not applicable	1

Reversible	2					
Irreversible	3					
Cumulative (B3) – reflects whether the effect will be a single direct impact or will include cumulative impacts over time, or synergistic effect with other conditions. It is a means of judgithe sustainability of the condition – not to be confused with the permanence criterion.						
Light or No Cumulative Character/Not applicable	1					
Moderate Cumulative Character						
Strong Cumulative Character						

Table 9-2 Environmental classification (Pastakia 1998)

Environmental Classification	Class Value	Description of Class
72 to 108	5	Extremely positive impact
36 to 71	4	Significantly positive impact
19 to 35	3	Moderately positive impact
10 to 18	2	Less positive impact
1 to 9	1	Reduced positive impact
0	-0	No alteration
-1 to -9	-1	Reduced negative impact
-10 to -18	-2	Less negative impact
-19 to -35	-3	Moderately negative impact
-36 to -71	-4	Significantly negative impact
-72 to -108	-5	Extremely Negative Impact

9.1 RISK ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

An EMP provides management options to ensure impacts of an activity are minimised. It is thus a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures may be included where necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of exploration. This section of the report can act as a stand-alone document. All personnel taking part in exploration should be made aware of the contents of this section, so as to plan and execute exploration in an environmentally sound manner.

The objectives of the EMP are:

- to include all possible activities of exploration;
- to prescribe the best practicable control methods to lessen the environmental impacts associated with exploration;
- to monitor and audit the performance of personnel in applying such controls; and
- to ensure that appropriate environmental training is provided to responsible personnel.

Various potential and definite impacts related to the proposed exploration activities have been identified. The majority of these impacts can be prevented or mitigated. The impacts, risk rating of impacts, as well as prevention and mitigation measures are listed below.

As depicted in the tables below, impacts related to the exploration phase are expected to mostly be of low to medium significance and can mostly be mitigated to have a low significance or a low probability to occur. The extent of impacts are mostly site specific to local and are not of a permanent nature.

9.1.1 Planning Phase

Planning is not only limited to before the exploration phase is entered, but is ongoing throughout the validity of the awarded EPL. When planning to conduct exploration, it is the responsibility of Proponent to ensure all personnel and contractors are and remain compliant with all legal requirements and the provisions of the EMP. This includes ensuring that all

required management measures are in place prior to and during exploration, to ensure potential impacts and risks are prevented or minimised. The management structure of the Proponent is presented in Figure 9-1.

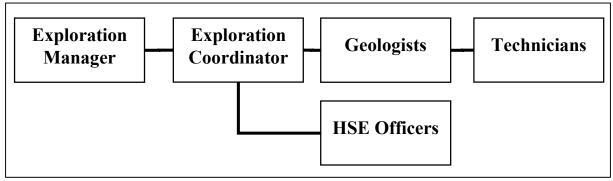


Figure 9-1 VMN organogram

The following actions are recommended for the planning phase and should continue during various other phases of the project:

9.1.1.1 Delegation of Responsibilities

- ♦ Make provisions to have a health, safety and environmental coordinator or similar to implement the EMP and oversee occupational health and safety as well as general environmental related compliance.
- Delegate EMP responsibilities to relevant personnel and contractors.

9.1.1.2 Risk Management and Emergency Response Preparedness

- ♦ Have relevant standard operating procedures and emergency response plans, equipment and personnel on site to prevent and deal with potential emergencies and incidents:
- ♦ Examples include health, safety and environment (HSE) manuals, site induction protocols, material safety data sheets, firefighting and evacuation plans and equipment, spill response plans, first aid training and first aid kits, etc.

9.1.1.3 Legal Compliance

- Compile an internal legal register outlining all required authorisations, permits and licences required to execute exploration activities.
- Comply with the various applicable acts and their respective regulations, for example pertaining to labour, income and other taxes and levies, work permits, etc.
- Ensure all necessary permits and authorisations from the various ministries, local authorities and any other bodies that govern exploration activities are in place and remains valid. These include the ECC, the EPL, drilling permits, permits for removal of protected trees (if required), exemption permits for storage of fuel, authorisations for aerial surveys, if any (helicopter, drone or aeroplane), etc.
- Apply for renewal of the ECC prior to expiry.

9.1.1.4 Surface Access Agreements

• Enter into agreements with the various land owners affected by the EPL and exploration activities. Such agreements should clearly stipulate the responsibilities of all parties involved, including restrictions pertaining to entry, movement and activities on the land, expectations of the land owner regarding rehabilitation once exploration activities cease, etc.

9.1.1.5 Employment and Contractor Appointments

• Ensure all appointed employees and contractors enter into an agreement with the Proponent, which among others include contractual adherence to the EMP. Ensure the contents of the EMP are understood by the employees contractors, sub-contractors and all personnel present or who will be present on explorations sites. This may require

environmental training pertaining to the "value of nature" (why we need to protect the environment), explanation of various terminology, monitoring requirements, consequences of non-compliance, etc.

9.1.1.6 Rehabilitation and Pollution Clean-up

• If not already established, establish and maintain a fund/insurance for rehabilitation of the exploration sites, or for unforeseen events where environmental pollution occur which requires clean-up and/or remediation.

9.1.1.7 Community Liaison

- Appoint a community liaison officer and devise a community liaison strategy. Communicate his/her contact details, and the procedures for filing of complaints or providing feedback/input, to the affected land owners and other relevant stakeholders.
- Maintain a complaints register which details, among others, the date the complaint is received, the name and contact details of the person filing the complaint, the nature of the complaint, action taken to address and prevent future incidents of a similar nature, a copy of the feedback provided to the person filing the complaint.

9.1.1.8 Monitoring and Reporting

- Maintain an incidents register which detail, among others, the date the incident occurred, the names and contact details of persons involved in the incident, the nature of the incident, and action taken to address and prevent future incidents of a similar nature.
- Establish and / or maintain an environmental reporting system to report on environmental management procedures and incidents as outlined in the EMP.
- Submit environmental monitoring reports to the MEFT in compliance with the conditions linked to the ECC.

9.1.2 Employment

Appointment of consultants already realises during the planning phase. This include those responsible for permitting. During exploration, some contractors may be appointed to conduct specialised tasks. Local consultants, contractors and their employees, are thus supported, and their livelihoods sustained. Some aspects may require expertise not locally available, in which case foreign consultants or contractors may be used.

The Proponent appoints unskilled, semi-skilled and specialist employees to perform tasks related to exploration. This range from office administration to the highly specialised activities involved with in-field geological surveys and drilling. Employment are sourced locally, however specialised skills may not be locally available and may be sourced from outside of Namibia.

Project Activity / Resource	Nature (Status)	d (A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Planning, Exploration and Site Decommissioning	Permanent employment opportunities and periodic appointment of consultants and third party contractors without prioritising Namibian citizens	3	1	2	2	1	15	2	Definite
	With Enhancem	ent N	Ieas	ures			•		
Planning, Exploration and Site Decommissioning	Prioritising Namibian citizens for permanent employment opportunities and periodic appointment of consultants and third party contractors	3	2	2	2	1	30	3	Definite

<u>Desired outcome:</u> To maximise the appointment of Namibian consultants, contractors and employees to contribute to a reduction in overall unemployment.

Actions

Enhancement:

- Employ local Namibians as far as practically possible.
- ♦ Appointment of foreign employees or contractors must be in line with the requirements of the Ministry of Home Affairs, Immigration, Safety and Security.

Responsible Body:

♦ Proponent

- **♦** Immigration Control Act
- Bi-annual summary report based on employee records with employee contracts, work permits, etc. on file.

9.1.3 Skills, Technology and Development

Development of people and technology are key to economic development. Exploration for mineral resources requires a workforce that ranges from highly specialised to general workers. Advanced exploration technologies are often used and training is provided to a portion of the workforce to be able to use these technologies and to perform certain tasks according to the required standards. Skills are periodically transferred to an unskilled workforce for general tasks. During normal exploration and related activities, employees will increase their work experience while some individuals may be identified for promotion and additional skills development and training.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Enhance	ment	Mea	sure	S				
Planning, Exploration and Site Decommissioning	Training and education, transfer of skills and technological development	3	1	2	2	1	15	2	Probable
	With Enhancem	ent N	Ieas	ures					
Planning, Exploration and Site Decommissioning	Training and education, transfer of skills and technological development	3	2	2	2	1	30	3	Definite

<u>Desired Outcome:</u> To see an increase in skills of local Namibians, as well as development and technological advancements in the mining industry and local community.

Actions

Enhancement:

- If the skills and technology exist locally, contractors and employees must be sourced from Namibia. Deviations from this practice is justified where local or Namibian options are not available.
- ♦ Skills development and improvement programs to be made available to Namibians as identified during employee performance assessments. This increases their chances of being successful in job applications if no longer employed by the Proponent.
- Employees to be informed about parameters and requirements for references upon employment. The Proponent to issue reference letters or testimonials to employees, during their period of employment, to ensure they have proof of work experience and competence should they leave the company.

Responsible Body:

♦ Proponent

- Record should be kept of any formal or informal training provided.
- Ensure that all training is certified or managerial reference provided (proof provided to the employees) inclusive of training attendance, completion and implementation.
- Bi-annual summary report based on records kept.

9.1.4 Contribution to the Economy

Mining and mining related activities attract foreign investment. The Proponent's exploration activities in Namibia have and will continue to generate revenue which is paid to the national treasury. Various consultants, contractors and employees are remunerated and various taxes, levies and fees are paid. This stimulates Namibia's economic development and promotes additional investments and business development.

At local scale, businesses in Talismanus can benefit from the presence of the exploration team.

Project Activity / Resource	Nature (Status)	m (A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Planning, Exploration and Site Decommissioning	Contribution to the Economy	3	1	2	2	1	15	2	Probable
	With Enhancem	ent N	Ieas	ures					
Planning, Exploration and Site Decommissioning	Contribution to the Economy	3	2	2	2	1	30	3	Definite

<u>Desired Outcome:</u> Contribution to the national treasury and economy

Actions

Enhancement:

- Procurement and maintenance of vehicles and machinery from the Namibian business sector
- The Proponent must employ local Namibians and contractors where possible.
- Where available, engage with local businesses for the provision of goods and services.
- Adherence to all Namibian laws relating to the payment of taxes, levies, etc.

Responsible Body:

• Proponent

Data Sources and Monitoring:

• Bi-annual summary report based on employee and contractor records, procurement of goods and services, etc. on file.

9.1.5 Ideals and Aspirations for the Future

During the environmental assessment, pubic consultation was conducted with land owners and interested and or affected parties. Information shared with some of the parties resulted in a change in their aspirations for the future. This related to the possibility of additional revenue streams that may result from exploration activities and potentially mining. Such revenue streams included the provision of services to the exploration team, e.g. accommodation, or being employed by the Proponent. Exploration may also result in a negative impact on the ideals and aspirations of the land owners where they feel exploration, and possibly future mining, may negatively impact their livelihoods by reducing their farmable land.

Ideals and aspirations of employees are also considered. Poor communication between management and employees may lead to uncertainty in with regard to job security and options for promotion.

Project Activity/Resource	Nature (Status) Mithout Mitigat	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Planning, Exploration and Site Decommissioning	Negative impact on society's ideals and aspirations for the future	2	-2	2	2	1	-20	-3	Definite
	After Mitigatio	n M	easu	res			•		,
Planning, Exploration and Site Decommissioning	Positive impact on society's ideals and aspirations for the future	2	2	2	2	1	20	3	Highly Probable

<u>Desired Outcome:</u> Continued sharing of accurate and easily understandable information, planned activities, project progress and opportunities with land owners, IAPs and government agencies. Maintaining an open door policy with land owners and IAPs.

Actions

Enhancement:

- Information sharing about the proposed project to explain in laymen's terms all proposed activities, timelines, potential impacts, potential benefits (opportunities), etc. The public consultation phase of the environmental assessment process was the first step in information sharing.
- Major changes in proposed exploration activities should be made available to land owners, government agencies and interested and affected parties.
- Open communication regarding future exploration activities, opportunities and employment with both land owners and employees.

Responsible Body:

♦ Proponent

- Up to date stakeholder database
- Records kept of all information shared with authorities, neighbours and employees.

9.1.6 Demographic Profile and Community Health

The scale of the exploration project is limited and it is not expected to create a change in the demographic profile of the nearby local communities. Where possible, existing labour, already employed by the Proponent will be used or new labourers will be sourced from a nearby town, or possibly from the land owners. Community health may be exposed to factors such as communicable disease like HIV/AIDS and tuberculosis (TB) and social ills or deviant behaviour like alcoholism/drug abuse, associated with increased spending power of the labour force. Similarly, workers from the exploration team may visit farm labourer compounds, and vice versa, and this may further expose both groups to the same social ills and diseases. Incidences of theft may occur and this may also be when criminals pose as employees of the exploration team present in the EPL area.

Positive impacts will relate to employees and contractors' increased economic resilience and improved livelihoods.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability	
	Without Preventative /	Mitig	gatio	n Me	asur	es				
Exploration and	Communicable disease,	2	-2	2	2	1	-20	-3	Probable	
Site	alcoholism/drug abuse, deviant									
Decommissioning	behaviour, criminal activities									
	After Preventative / Mitigation Measures									
Exploration and Site	Communicable disease, alcoholism/drug abuse, deviant	2	-1	2	2	1	-10	-2	Improbable	
Decommissioning	behaviour, criminal activities									

<u>Desired Outcome:</u> To prevent the in-migration and growth in informal settlements and to prevent the spread of communicable diseases and prevent / discourage socially deviant behaviour and criminal activities.

Actions:

Prevention:

- Thorough background checks and testimonials when appointing new employees.
- Provide educational programmes / information sessions for employees on various topics of health, social behaviour, etc., including communicable diseases, financial management and general upliftment of employees' social status.
- Clearly stipulate restricted activities when working within the EPL. Include any such activities stipulated in surface access agreements.
- Provide time schedules, names and vehicle registration numbers to land owners well in advance (and any other information as per the surface access agreement). Communicate any changes to land owners.
- All employees to wear easily distinguishable uniforms/clothing, with name tags that can be checked against the provided list of employees who will be present on the land.
- Inform land owners of each arrival onto and each departure from the land.
- No movement out of areas pre-arranged with the landowner.
- In the event that the exploration team must make use of a temporary camp for accommodation on any privately owned land, adhere to the following:
 - o Provide adequate sanitary and ablution facilities.
 - o No unauthorised visitors to be allowed at exploration sites and camps.
 - Employees to stay at the camp and authorised areas and no wandering outside of these or visits to nearby workers' compounds.
 - o All waste to be contained and removed from site to ensure hygienic conditions.

• Where contractors are required, ensure they are reputable and will strictly implement and follow the same measures as stipulated for the Proponent's team.

Mitigation:

• Disciplinary action for non-compliance must be communicated to all employees and contractors and implemented when incidents occur.

Responsible Body:

- **♦** Proponent
- **♦** Contractors

- Surface access agreements
- ♦ Company policies, procedures and rules
- For temporary camps, regularly completed inspection sheets, for all areas which may present environmental health risks, must be kept on file.
- Bi-annual summary report based on educational programmes and training conducted.

9.1.7 Health and Safety

Various activities associated with exploration are reliant on physical human labour, in the outdoors, and the operation of machinery. Therefore health and safety risks exist. Such risks include exposure to environmental elements extreme heat or cold, sunstroke, dehydration, trips and falls, vehicle accidents, getting caught in moving parts of machinery, cuts, exposure to hazardous chemicals (e.g. hydrocarbons) and encounters with wild, potentially dangerous, animals.

The EPL is remote and Talismanus only has a basic clinic. The nearest proper medical facilities are located in Gobabis.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Mitig	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Physical injury or exposure to elements	1	-3	2	2	1	-15	-2	Probable
	After Preventative / M	Iitiga	tion	Mea	sures	S			
Exploration and Site Decommissioning	Physical injury or exposure to elements	1	-2	2	2	1	-10	-2	Improbable

<u>Desired Outcome:</u> To prevent injury and health impacts

Actions

Prevention:

- Implement and maintain an integrated health and safety management system.
- All health and safety standards specified in the Labour Act should be complied with.
- Ensure that all personnel receive adequate training on operation of equipment / handling of hazardous substances (mainly hydrocarbons fuel, hydraulic fluid, etc.) and all drivers are appropriately licenced.
- All employees and visitors to the exploration areas must receive appropriate induction prior entry.
- Provide all employees with required and adequate personal protective equipment (PPE) and training in the proficient use thereof. This should include clothing and sunscreen to prevent sunburn or heatstroke.
- Ensure sufficient potable water is available to all workers at all times and remind employees to stay hydrated, especially in warm summer months.
- To prevent unauthorised entry, temporary camp and drill sites must be fenced off.
- Place and securely stow all heavy equipment (e.g. drill rods and casing) to prevent objects toppling over or falling on employees. Demarcate potentially dangerous areas like the drilling fluid sumps.
- No alcohol or recreational drugs should be allowed on site and no personnel should operate equipment under the influence of any drugs, including medicine that cause drowsiness and impaired judgement.
- Maintain all equipment and vehicles in good working order to minimise the risk of accidents (e.g. replacing of worn vehicle tyres, replacing damaged drill rods, etc.)
- Staff should be educated / trained on human wildlife conflict management and be informed not to approach wild animals and to be vigilant for, and not to confront (attempt to kill or catch), snakes or other potentially venomous / dangerous animals.
- Regular checks for sand tampans and ticks and wearing of repellents and clothing to prevent them from attaching.

Mitigation:

- Selected personnel should be trained in first aid and a first aid kit must be available on site. This should include for example snake identification and handling of snake bites.
- The contact details of all emergency services must be readily available and a satellite phone must be available if areas with no cellular reception is entered.
- In case of any injury or illness, first aid should be applied and the employee transported to a medical facility if required.
- For serious injuries, emergency services should be contacted for evacuation to the nearest emergency facility.
- All personnel with known medical conditions must keep their own medicine nearby at all times. This includes treatment for severe allergies to for example bee stings.

Responsible Body:

- **♦** Proponent
- ♦ Contractors

- Any health and safety incidents must be recorded with action taken to prevent future occurrences.
- A bi-annual report should be compiled of all incidents reported. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained

9.1.8 Security

Security risks will be related to unauthorised entry into temporary exploration camps, theft and sabotage. Similarly, the presence of foreign workers in the area may expose the land owners to security issues such as theft (e.g. poaching, stock theft). Criminals may take the opportunity to pose as exploration team workers in order to access the areas.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Mitiş	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Deviant behaviour and criminal activities	2	-2	2	2	1	-20	-3	Probable
	After Preventative / M	litiga	tion	Mea	sures	5			
Exploration and Site Decommissioning	Deviant behaviour and criminal activities	2	-1	2	2	1	-10	-2	Improbable

Desired Outcome: To prevent deviant and criminal behaviour such as theft.

Actions

Prevention:

- Thorough background checks and testimonials when appointing new employees.
- Clearly stipulate restricted activities when working within the EPL. Include any such activities stipulated in surface access agreements.
- Provide time schedules, names and vehicle registration numbers to land owners well in advance (and any other information as per the surface access agreement). Communicate any changes to land owners.
- All employees to wear easily distinguishable uniforms/clothing, with name tags that can be checked against the provided list of employees who will be present on the land.
- Inform land owners of each arrival onto and each departure from the land.
- No movement out of areas pre-arranged with the landowner.
- Prior to entering an EPL, confirm with the land owner which gates should be left open and which should be closed.
- Where contractors are required, ensure they are reputable and will strictly implement and follow the same measures as stipulated for the Proponent's team.

Mitigation:

- Disciplinary action for non-compliance must be communicated to all employees and contractors and implemented when incidents occur.
- Vehicles accessing farms could be fitted with trackers and dash cams to allow the Proponent to investigate any complaints made by landowners about unauthorised movement and incidents on their land.
- Report any suspected "out of the ordinary" sightings such as dead animals (suspected poaching), open gates, suspicious persons, etc. to the land owner.

Responsible Body:

- Proponent
- ♦ Contractors

- Surface access agreement
- Any incidents must be recorded with action taken to prevent future occurrences.
- A bi-annual report should be compiled of all incidents reported and action taken.

9.1.9 Vehicle Movement

Exploration activities occur on farmland, thus traffic impacts on public roads will be limited to the occasional movement of vehicles to and from the EPL when exploration is performed. This can include slow moving drill rigs. The impact on public roads are expected to be minor.

Although only a few vehicles will access private roads in the EPL area, such as on privately owned farms, it may constitute a significant increase in traffic compared to the status quo. Potential impacts include dust, noise, running over or collisions with wildlife and livestock, stressed wildlife, and damage to roads, especially when it rains and road surfaces are wet.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Miti	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Traffic impacts during delivery of large equipment and building materials	2	-2	2	2	2	-24	-3	Probable
	After Preventative / M	litiga	tion	Mea	sures	5	•		
Exploration and Site Decommissioning	Traffic impacts during delivery of large equipment and building materials	2	-1	3	2	2	-14	-2	Improbable

<u>Desired Outcome:</u> Minimum impact on traffic on public roads, no transport or traffic related incidents, impacts and disturbances on privately owned land/roads

Actions

Prevention:

- All drivers of vehicles must have valid drivers' licences appropriate for the vehicle driven and be trained in off-road driving.
- All vehicles to be roadworthy and appropriately licensed.
- If significant traffic impacts are expected on public roads, possibly as a result of slow moving drill rigs, traffic management should be performed.
- Implement speed limits on farm roads to minimise dust and noise and to prevent running over or collisions with wildlife or livestock. For roads near residences or livestock enclosures, and for very dusty roads, speed can further be reduced.
- All drivers should be vigilant for any wildlife near or in roads to prevent running over or collisions with wildlife and livestock.
- Maintain all vehicles' in good mechanical condition to ensure they do not produce excessive noise.
- For sandy areas, engage four-wheel drive and reduce tyre pressure to prevent unnecessary wheel spin and damage and corrugation of roads.

Mitigation:

- Repair any damaged roads.
- Report any collisions with livestock or wildlife to the land owner.
- Vehicles accessing farms could be fitted with trackers and dash cams to allow the Proponent to investigate any complaints made by landowners about unauthorised movement and incidents on their land.
- Disciplinary action for non-compliance must be communicated to all employees and contractors and implemented when incidents occur.

Responsible Body:

♦ Proponent

- Data Sources and Monitoring:
 ♦ Any complaints received regarding vehicle movement should be recorded together with action taken to prevent impacts from repeating itself.
- A bi-annual report should be compiled of all incidents reported, complaints received, and action taken

9.1.10 Noise

Noise related to exploration activities is mainly limited to vehicle movement, aerial surveys and exploration drilling. Helicopter, aeroplane or drone technology used for aerial photography or geophysical surveys, will introduce noise unfamiliar to wildlife and livestock, especially at low altitude flying.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability	
	Without Preventative / Mitigation Measures									
	Noise generated from the exploration	2	-2	2	2	1	-20	-3	Probable	
	activities – nuisance and stressed									
Decommissioning	animals									
	After Preventative / Mitigation Measures									
	Noise generated from the exploration activities – nuisance and stressed animals	2	-1	2	2	1	-10	-2	Improbable	

<u>Desired Outcome:</u> To prevent any hearing loss among employees and not to be a nuisance or cause stress in wildlife and livestock.

Actions

Prevention:

- Follow Health and Safety Regulations of the Labour Act on maximum noise levels to prevent hearing impairment of employees, specifically if drilling is conducted.
- All vehicles and machinery must be regularly serviced to ensure minimal noise production. This include fitting noise dampers on for example compressors used for reverse circulation drilling.
- Exploration activities should only be conducted in daytime, during weekdays, unless otherwise arranged with the land owner.
- If helicopters, drones or aeroplanes are used for aerial surveys, it should be performed at times agreed upon with the land owner
- Helicopter, drone or aeroplane surveys must be performed for the minimum time possible, and as high above the ground as possible, while still ensuring good quality data.
- Noise dampers to be fitted on machines where suitable and alternative signalling adopted where possible.
- For vehicle noise also refer to section 9.1.9.

Mitigation

- Personnel working in noisy environments must be issued with hearing protectors, specifically if drilling is conducted.
- Where helicopters, aeroplanes or drones cause distress in animals, operations should cease until they have moved away, before it can continue.

Responsible Body:

- Proponent
- ♦ Contractors

- Health and Safety Regulations of the Labour Act, Civil Aviation Act
- **♦** Surface access agreement.
- Maintain a complaints register.
- Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences

9.1.11 Fire

Fires outside of designated areas and discarded cigarettes can cause veld fires which can quickly spread and get out of control. Similarly, machinery can ignite dry vegetation if sufficient heat (e.g. exhaust pipes) or sparks are produced. Fuels stored and used for exploration activities may be flammable. Veld fires originating elsewhere (e.g. lightning) can pose a threat to the exploration teams.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Mitig	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Fire risks	2	-3	2	2	1	-30	-3	Probable
	After Preventative / M	Iitiga	tion	Mea	sures	S			
Exploration and Site Decommissioning	Fire risks	2	-2	2	2	1	-20	-3	Improbable

<u>Desired Outcome:</u> To prevent fires causing property damage, loss in vegetation, possible injury caused by uncontrolled fires.

Actions:

Prevention:

- Prepare a holistic fire protection and prevention plan. This plan must include an emergency response plan and a firefighting plan.
- Personnel training (safe operational procedures, firefighting, fire prevention and responsible housekeeping practices).
- All vehicles to be fitted with fire extinguishers and have equipment to specifically fight veld fires available.
- For drilling sites and if temporary camps are used:
 - Maintain regular vehicle and machinery mechanical and electrical inspections and maintenance.
 - o Ensure all flammable chemicals are stored according to material safety data sheet (MSDS) and SANS instructions and all spills or leaks are cleaned up immediately.
 - Have serviced firefighting equipment within easy reach, including those used to fight veld fires.
 - Fire used for purposes such as cooking must only be allowed within designated areas far removed from any flammable material such as dry vegetation.

Mitigation:

- Implement the fire protection and firefighting plan in the event of a fire.
- Quick response time by trained staff will limit the spread and impact of a fire.
- Communication methods (e.g. satellite phones where cellular phone reception is limited) must be available at all times for rapid communication with the land owner and surrounding farmers to immediately be able to notify them of a fire. A rapid response to a veld fire is crucial in bringing it under control and extinguishing it as soon as possible.

Responsible Body:

- **♦** Proponent
- ♦ Contractors

- A register of all incidents must be maintained on a daily basis. This should include measures taken to ensure that such incidents do not repeat themselves.
- A bi-annual report should be compiled of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given

9.1.12 Visual

Activities that may have a visual impact are exploratory drilling, the associated roads leading to drill sites, and possible erosion where vegetation is cleared. Rehabilitated drill sites and cleared areas takes time to recover to such an extent that it is no longer visible, and are prone to erosion. Newly drilled boreholes are distinctly visible due to the vegetation clearing and waste rock usually associated with such sites. Borehole casing protruding from the ground also has a visual impact. Numerous drill sites will thus alter the landscape character. In addition newly drilled sites are often uniquely visible from the air and on open source satellite imagery due to the presence of drill cuttings and dust. Such changes may affect receptors which are reliant on the existing landscape character (such as tourism).

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability	
	Without Preventative /	Mitig	gatio	n Me	asur	es				
Exploration and	Visual impact and a change in	2	-2	2	2	1	-20	-3	Probable	
Site	landscape character									
Decommissioning										
	After Preventative / Mitigation Measures									
Exploration and Site Decommissioning	Visual impact and a change in landscape character	2	-1	2	2	1	-10	-2	Probable	

<u>Desired Outcome:</u> To minimise potential visual impacts and changes to the landscape character

Actions

Mitigation:

- At the drill site, regular waste disposal and good housekeeping will ensure a low visual impact.
- Drill sites should be sufficiently rehabilitated. All drill cores as well as cuttings with a significantly different colour than the surface soil should be removed from site. Other cuttings can be dispersed around the site and loosely raked to limit the visual impact.
- Stored topsoil should be returned and spread over the site to speedup re-establishment of vegetation.
- Compacted soil must be ripped along contour and not down slope. This will loosen soil, promote water infiltration, aid re-vegetation and limit soil erosion.

Responsible Body:

- Proponent
- **♦** Contractors

- A report should be compiled of all complaints received and actions taken.
- Maintain a photo log for comparison of all exploration (drill) sites prior to entry by the drill team and after rehabilitation is completed.

9.1.13 Soil, Surface Water and Groundwater

Groundwater is the only source of potable water within the EPL area. Infiltration of as much uncontaminated precipitated water is greatly desired so as to recharge groundwater resources. Care must thus be taken to avoid contamination of soil and surface water. No known permanent surface water sources are present within the EPL area. Pollution in dry riverbeds may however result in downstream and groundwater pollution when they flow during rainy seasons.

Contamination of the groundwater can occur via polluted water infiltrating through sediments or through fractures, joints and faults that are present in the subsurface. Soil contamination can occur from chemical and hydrocarbon spills during refuelling, during maintenance of equipment and machinery, or if mobile fuel tanks (bowsers) are involved in accidents on route to drill sites. Hydraulic oil leaks are common on drilling rigs and pipe bursts may release oil into the environment. Contamination of groundwater could also occur through infiltration of waste from field toilets. This is specifically applicable to exploration camp sites.

Soil may further become compacted or disturbed (powdered) as a result of heavy motor vehicles and equipment and this affects soil quality and may lead to excessive erosion. Similarly, although very few steep sloped areas are present within the EPL, clearing of slopes greater than 12.5° may present a greater erosion risk.

Drilling of exploration holes may penetrate a confining aquifer layer (aquitard). This may cause mixing of aquifer water where the one aquifer may contain water of a poor quality, causing contamination of the aquifer having better quality. An alternative impact may be the leaking of water from one aquifer into another, causing existing boreholes to dry up or springs to dry up. Based on the limited amount of information available, it is not expected that such impacts would occur within the project area. It would however be advisable to take care during drilling that proper monitoring is taking place to evaluate for such conditions and that appropriate remedial actions be implemented where needed – the precautionary principal should be applied.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Mitig	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Contamination from hazardous material spillages	2	-3	2	2	1	-30	-3	Probable
	After Preventative / M	Iitiga	tion	Mea	sures	5			
Exploration and Site Decommissioning	Contamination from hazardous material spillages.	2	-2	2	2	1	-20	-3	Improbable

Desired Outcome: To prevent the contamination of soil and water

Actions

Prevention:

- Training of operators of machinery and vehicles and employees must be conducted on a regular basis (responsible driving, fuel and chemical handling, spill detection, spill control).
- All machinery and vehicles should be properly maintained to be in a good working condition with no leaks and reduced possibilities of pipe bursts/breakages.
- Employ drip trays and spill kits when leaks are detected or servicing / repairs of equipment is needed.

- The contents of mobile chemical toilets must be removed from site and disposed of at a registered waste water treatment plant.
- Limit movement to existing roads as far as is practically possible.
- Limit interference with drainage lines.
- Where drill sites are levelled to create drill pads and campsites, topsoil must be stored for rehabilitation purposes after drilling is complete and the site is decommissioned.
- If land clearing is required in areas with a slope greater than 12.5, mitigation measures should be employed to prevent erosion and formation of gullies. All mitigation measures to be agreed with the land owner.

Mitigation:

- Any fuel spillage of more than 200 litre must be reported to the Ministry of Mines and Energy.
- Spill clean-up means must be readily available on site as per the relevant MSDS and any spill must be cleaned up immediately to prevent it from reaching sensitive receptors.
- Hazardous waste must be contained and disposed of at a suitably classified hazardous waste disposal facility.
- Rehabilitate areas where soil or drainage lines are disturbed.
- Compacted areas can be lightly ripped and contoured to encourage vegetation establishment and to get rid of tracks.
- ♦ After exploratory drilling is complete, the boreholes must be handled according to the drill permit conditions. Where such conditions are lacking, boreholes should either be backfilled or secured with a steel or unplasticized polyvinyl chloride (uPVC) casing equipped with a secure cap. Drill cuttings should not be used for backfilling boreholes as minerals in the cuttings may have oxidised and will then potentially be released into the groundwater, together with salts present in the cuttings. Clean sand or clay should be used where possible.
- Backfilling or closing of the boreholes should be performed to avoid organisms from falling into the boreholes and to prevent surface runoff from contaminating the groundwater, where the borehole will form a preferential flow path if not properly sealed.
- Boreholes should be cemented where boreholes intersect confining layers separating aquifers with different water quality or causing artesian conditions.

Responsible Body:

- Proponent
- **♦** Contractors

- Maintain MSDS file for hazardous chemicals.
- Maintain a photo log for comparison of all exploration (drill) sites prior to entry by the drill team and after rehabilitation is completed
- Report all spills or leaks to management and immediately initiate clean-up.
- Maintain a register of all incidents on a daily basis. This should include measures taken to ensure that such incidents do not repeat themselves.

9.1.14 Ecosystem and Biodiversity

Some exploration activities are intrusive in nature, although mostly with relatively low impact. New roads may be required to allow machinery to be moved to exploration targets and drill sites will need clearing. Employees involved with exploration may be involved with poaching and illegal collection of plant and animal materials. Poachers may also use the presence of exploration teams on farms, to pose as members of the team, in order to poach. Impacts may also be related to pollution of the environment. Human / wildlife interactions further present a risk to both the wildlife and the people involved.

Disturbed sites are prone to the rapid establishment of invasive plants.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability	
	Without Preventative /	Mitig	gatio	n Me	asur	es				
Exploration and Site Decommissioning	Poaching and ecological damage	2	-3	2	2	1	-30	-3	Probable	
	After Preventative / Mitigation Measures									
Exploration and Site Decommissioning	Poaching and ecological damage	2	-2	2	2	1	-20	-3	Improbable	

Desired Outcome: To prevent poaching, ecological damage and pollution

Actions.

Prevention:

- Educate all contracted and permanent employees on the value of biodiversity and the importance of protecting the environment from disturbance.
- Where possible, removal of trees, especially protected species and large trees, must be avoided. The necessary permits from the Directorate of Forestry of the MEFT must be obtained for removal of all protected species.
- Liaise with the land owner on routes to be followed where new roads should be made and whether such roads should be rehabilitated after exploration ends or be left as is for the owner's use.
- Areas to be cleared must first be inspected for nests and burrows and these should be avoided.
- Strict conditions prohibiting harvesting and poaching of fauna and flora should be part of employment contracts. This includes prohibitions or regulations on the collection of firewood.
- Procedures to deal with human-wildlife conflict should form part of employee training/induction. The unwarranted killing of potentially dangerous animals, or those perceived as dangerous, or animals typically feared due to superstitious reasons, should be strongly discouraged.
- The footprint of drill sites, their associated laydown areas and access routes, should be kept to the smallest area possible and movement of vehicles outside of these area must be prohibited.
- Where drill sites are levelled to create drill pads, topsoil (overburden) must be stored for rehabilitation purposes after drilling is complete and the site is decommissioned.
- Exploration equipment transferred from completely different habitats to the EPL area must be thoroughly cleaned to limit the potential transfer of alien species to the area.
- Restrict driving to designated areas and avoid off-road driving.

Mitigation:

- Report any extraordinary animal sightings, conflict or incidents to the farm owner and MEFT.
- Report any suspicious people or dead animals, snares or traps encountered during exploration to the land owner.
- Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts from pollution.
- At campsites, prevent scavenging of any waste by fauna.
- Disciplinary actions to be taken against all employees failing to comply with contractual conditions related to poaching and the environment.
- Compacted areas can be lightly ripped to encourage vegetation establishment and to get rid of tracks.
- Topsoil should be returned to such sites in order to re-establish the seed bank.
- Alien invasive species should be eradicated from drill sites during follow-up visits to rehabilitated areas.

Responsible Body:

♦ Proponent

- Forestry Act regulations
- Invader species eradication to be reported on.
- ♦ All information and reporting to be included in a bi-annual report.

9.1.15 **Dust**

Dust may be generated as a result of vehicles travelling on gravel roads, strong winds picking up dust in cleared areas, due to the specific drilling methods, only limited dust as a result of drilling.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Mitig	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Dust	2	-2	2	2	1	-20	-3	Definite
	After Preventative / M	litiga	tion	Mea	sure	S			
Exploration and Site Decommissioning	Dust	2	-1	2	2	1	-10	-2	Probable

<u>Desired Outcome:</u> To prevent any nuisance or health impacts as a result of dust.

Actions

Mitigation:

- Responsible driving speeds on gravel roads will limit dust generation.
- Road surfaces that become powdered due to heavy equipment must be rehabilitated to reduce dust.
- Dust masks as standard PPE for workers in situations with excessive dust.
- Implement dust suppression measures where possible and especially at drill sites close to public roads, if needed

Responsible Body:

- **♦** Proponent
- ♦ Contractors

- ♦ Health and Safety Regulations of the Labour Act
- Maintain a complaints register.
- Bi-annual reporting on complaints and actions taken to address complaints and prevent future occurrences.

9.1.16 Waste

Various forms of waste will be produced during exploration activities. Waste may include hazardous waste associated with hydrocarbon products and chemicals, including soil and water contaminated with such products. Domestic waste will be generated by the workers. Sewage in chemical toilets will be produced. Waste presents a contamination risk and when not removed regularly may become a health and / or fire hazard and attract wild animals and scavengers. Due to the potential visual difference between drill cuttings and drill cores and the natural soil cover, it may be regarded as a type of waste.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability	
	Without Preventative /	Mitiş	gatio	n Me	asur	es				
Exploration and Site Decommissioning	Waste, littering and pollution	2	-2	2	2	1	-20	-3	Probable	
	After Preventative / Mitigation Measures									
Exploration and Site Decommissioning	Waste, littering and pollution	2	-1	2	2	1	-10	-2	Improbable	

<u>Desired Outcome:</u> To reduce the amount of waste produced, and prevent contamination, pollution and littering.

Actions

Prevention:

- Develop a waste management plan and educate workers on the importance of proper waste management.
- Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate.
- Ensure adequate waste storage facilities are available that will prevent waste from being blown away by wind or being scavenged (human and non-human) or attract vermin.
- Hazardous wastes such as used oil and oil/diesel contaminated soil or water must be contained.
- In the unlikely event of a french drain being erected for employees, it should adhere to the Department of Water Affairs' guideline documents for the siting and construction of such facilities.

Mitigation

- All waste must be removed from the drill sites and camps once drilling is complete. Waste should be disposed of at appropriately classified disposal facilities, this includes hazardous material (empty chemical containers (e.g. oil containers) and contaminated materials (rugs, paper water and soil). Empty chemical containers must be destroyed in a way that would prevent reuse as a container after disposal.
- All drill cores as well as cuttings with a significantly different colour than the surface soil should be removed from site. Other cuttings can be dispersed around the site and loosely raked to limit the visual impact.
- Contents of chemical toilets must be removed from site and disposed of at a registered waste water treatment facility.

Responsible Body:

- **♦** Proponent
- ♦ Contractors

- A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.
- Any complaints received regarding waste should be recorded with notes on action taken.
- All information and reporting to be included in a bi-annual report.

9.1.17 Heritage Resources

Within EPL 9972, the chance of discovering of archaeologically or culturally important artefacts are very small. This is due to the overall lack in surface features, such as rocky hills and springs, that are typically associated with early human habitation. Should archaeologically or culturally important artefacts be discovered (e.g. unmarked graves, signs of early human habitation), it will have a positive academic value if preserved, but a negative impact if damaged.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
	Without Preventative /	Mitig	gatio	n Me	asur	es			
Exploration and Site Decommissioning	Damaged archaeologically or culturally important artefacts	4	-3	3	3	1	-84	-4	Probable
	After Preventative / M	Iitiga	tion	Mea	sures	3			
Exploration and Site Decommissioning	Preserved archaeologically or culturally important artefacts	4	3	3	3	1	84	4	Probable

<u>Desired Outcome:</u> To prevent the damage to, or destruction of, any archaeological, paleontological or culturally important (heritage) resources.

Actions

Prevention:

• Educate employees and contractors on what constitutes a possible heritage or archaeologically significant find and inform them to be vigilant for any extraordinary finds and to prevent any damage.

Mitigation:

- If and site or any other archaeologically important artefact is found during exploration, the "chance find procedure" must be implemented. In short, any work in that area must be halted, the area demarcated and the National Heritage Council informed.
- For any human remains, the Namibian Police must be informed as a first action.
- Work may only resume once the necessary permission is provided by the National Heritage Council.

Responsible Body:

♦ Proponent

Data Sources and Monitoring:

• Documenting and reporting of any incidents related to heritage, archaeological or paleontological resources.

9.1.18 Utilities and Infrastructure

Any damage caused to existing infrastructure and like fences, reservoirs, troughs, roads, etc. This includes damage/erosion of farm roads due to the movement of heavy machinery such as drill rigs to exploration sites. Borehole casings that becomes overgrown can present a danger to land owners if they drive off road and collide with it. This is not likely to happen as the EPL is very densely vegetated, making off-road driving nearly impossible.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability	
	Without Preventative /	Mitig	gatio	n Me	asur	es				
Exploration and Site Decommissioning	Disruption in services supply and infrastructure damage	2	-2	2	2	1	-20	-3	Probable	
	After Preventative / Mitigation Measures									
Exploration and Site Decommissioning	Disruption in services supply and infrastructure damage	2	1	2	2	1	-10	2	Improbable	

Desired Outcome: No impact on utilities and infrastructure.

Actions

Prevention:

- The Proponent must determine exactly where infrastructure like pipelines are situated. Liaison with owners of the land or suppliers of services (if applicable) is essential.
- Damaged farm roads and associated erosion ditches must be repaired in accordance with pre-arranged agreements with the land owner. The use of drill cuttings for this purpose should be considered as this will also serve as drill site rehabilitation.
- The land owner must be informed of the exact positions of any borehole casings protruding above the ground.

Mitigation:

• Emergency procedures for corrective action available on file.

Responsible Body:

- **♦** Proponent
- ♦ Contractors
- Land owner or suppliers of services

Data Sources and Monitoring:

• A report should be compiled of all incidents that occurred and corrective action taken.

9.2 Environmental Management System

The Proponent could implement an environmental management system (EMS) for their operations. An EMS is an internationally recognized and certified management system that will ensure ongoing incorporation of environmental constraints. At the heart of an EMS is the concept of continual improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective EMS would need to include the following elements:

- A stated environmental policy which sets the desired level of environmental performance;
- ♦ An environmental legal register;
- An institutional structure which sets out the responsibility, authority, lines of communication and resources needed to implement the EMS;
- Identification of environmental, safety and health training needs;
- An environmental program(s) stipulating environmental objectives and targets to be met, and work instructions and controls to be applied in order to achieve compliance with the environmental policy;
- Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMS; and

10 CONCLUSION

Votorantim Metals Namibia requires an ECC to allow for exploration activities on EPL 9972 in the Omaheke Region. Geo Pollution Technologies conducted an environmental assessment to determine the impacts of exploration on the environment of the specific EPL. The exploration activities of VMN can play a positive role in the Omaheke Region and Namibia as a whole. Through VMN, foreign funds are invested in Namibia and employment within VMN and their contractors are sustained. This improve employees' livelihoods and spending power which has a knock-on effect when they in turn support various business. Exploration activities also have the potential to benefit land owners, through the provision of information regarding subsurface geology which in turn may enable land owners to find potential groundwater resources, through compensation for services, etc.

Negative impacts of exploration entails limited ecological disturbances where vegetation needs clearing for exploration. Pollution of the environment can occur when there are hydrocarbon leaks from drilling equipment and vehicles, or where waste is not contained and removed from site. Poaching and theft are a concern, especially where criminals may seize the opportunity to pose as a member of the exploration team to gain access to the land. Fire, dust, erosion, noise and deterioration of farm roads are also impacts associated with exploration. Exploration related impacts must be prevented or mitigated by implementing the EMP and through strict monitoring and control. All permits and approvals must be obtained from relevant ministries or authorities. Pollution prevention measures should be adequate to prevent incidents that may potentially pollute soil, ground water and surface water. Health, safety and security regulations should be adhered to in accordance with the regulations pertaining to relevant laws and standards. Of main importance is that surface access agreements be reached with land owners and that the conditions stipulated in these agreements are adhered to at all times.

The EMP (section 9.1) should be used as an on-site reference document during exploration. Parties responsible for transgressing of the EMP should be held accountable according to the Proponent's standard procedures for handling of misdemeanours. The Proponent should use an in-house health, safety, security and environment management system, or similar, in conjunction with the EMP. All exploration personnel and contractors must be taught the contents of these documents.

Should the MME and Directorate of Environmental Affairs (DEA) in the MEFT find that the impacts and related mitigation measures, which have been proposed in this report, are acceptable, the necessary authorisations and ECC may be granted to the Proponent. The ECC issued, based on this document, will render it a legally binding document which should be adhered to.

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Appendix A:	Tree Atlas of Namibia List of Trees Known to Occur in the EPL Area

Trees recorded in the Tree Atlas of Namibia as occurring in QDS 2120CA and 2120CB (Curtis & Mannheimer, 2005)

Mannheimer, 2005)			1
Name	Common Name	Abundance Category	Notes
Acacia ataxacantha	Flame-thorn	Uncommon to Rare	
Acacia erioloba	Camel-thorn	Uncommon to Rare	Protected by forestry legislation
Acacia fleckii	Sand-veld Acacia	Common to Abundant	
Acacia hebeclada subsp. hebeclada	Candle-pod Acacia	Common to Abundant	
Acacia luederitzii var luederitzii	Kalahari Acacia	Common to Abundant	
Acacia mellifera subsp. detinens	Blue-thorn Acacia	Common to Abundant	Aggressive invasive species
Bauhinia petersiana subsp. macrantha	White Bauhinia	Common to Abundant	
Boscia albitrunca	Shepherd's Tree	Uncommon to Rare	Protected by forestry legislation
Burkea africana	Burkea	Uncommon to Rare	Protected by forestry legislation
Combretum collinum subsp. gazense	Bi-coloured Variable Combretum	Common to Abundant	
Combretum psidioides subsp.	Peeling-twig	Uncommon to	
dinteri	Combretum	RareName	
Commiphora angolensis	Sand Corkwood	Uncommon to Rare	
Croton gratissimus var gratissimus	Lavender Croton	Common to Abundant	
Dichrostachys cinerea subsp. africana	Kalahari Christmas Tree; Sickle-bush	Common to Abundant	Aggressive invasive species in some areas
Diospyros lycioides subsp. lycioides	Bluebush	Uncommon to Rare	
Ehretia alba	White-puzzle Bush	Uncommon to Rare	
Grewia avellana	Mezunzunvani	Common to Abundant	
Grewia flava	Velvet Raisin	Common to Abundant	
Grewia retinervis	Kalahari Raisin	Common to Abundant	
Mundulea sericea	Silverbush	Uncommon to Rare	
Ochna pulchra	Peeling-bark Ochna	Common to Abundant	
Ozoroa insignis	Africa Resin-tree	No Estimate of Abundance	
Ozoroa paniculosa	Common Resin-bush	Common to Abundant	
Philenoptera nelsii subsp. nelsii	Kalahari Omupanda; Kalahari Apple-leaf	Common to Abundant	

Name	Common Name	Abundance	Notes
		Category	
Rhigozum brevispinosum	Simple-leaved	Common to	
	Rhigozum	Abundant	
Searsia tenuinervis var	Kalahari Currant	Uncommon to Rare	
tenuinervis			
Salacia luebbertii	N/A	Uncommon to Rare	
Securidaca longepedunculata	Violet-tree	Uncommon to Rare	
Tarchonanthus camphoratus	Camphor Bush	Uncommon to Rare	
Terminalia sericea	Silver Cluster-leave	Common to	
		Abundant	
Ziziphus mucronata	Buffalo-thorn	Common to	Protected by
		Abundant	forestry
			legislation

Appendix B: Proof of Public Consultation

Notification Letter to Omaheke Regional Council



TEL.: (+264-61) 257411 • FAX.: (+264) 88626368 CELL.: (+264-81) 1220082 PO BOX 11073 • WINDHOEK • NAMIBIA E-MAIL: gpt@thenamib.com

To: Interested and / or Affected Party / Neighbour

5 March 2025

Re: ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLAN FOR EXCLUSIVE PROSPECTING

LICENCE 9972, OMAHEKE REGION

Dear Sir/Madam

Geo Pollution Technologies (Pty) Ltd has been appointed by Votorantim Metals Namibia (Pty) Ltd to apply for an environmental clearance certificate (ECC) for the proposed exploration activities related to exclusive prospecting licence (EPL) 9972. The ECC is required as per the Environmental Management Act No. 7 of 2007 (EMA). In support of the ECC application, an environmental scoping impact assessment (EIA) and environmental management plan (EMP) will be submitted to the Ministry of Environment, Forestry and Tourism's Directorate of Environmental Affairs (DEA).

Project: Environmental Assessment and Management Plan for Exclusive Prospecting Licence 9972, Omaheke Region

Proponent: Votorantim Metals Namibia (Pty) Ltd

Environmental Assessment Practitioner: Geo Pollution Technologies (Pty) Ltd

The Proponent received an "Intention to Grant" from the Ministry of Mines and Energy in respect of their application for EPL 9972. The EPL will be granted to the Proponent upon successful acquisition of an ECC for the EPL area, as indicated on Page 2. The EPL is for the exploration of base and rare metals, industrial minerals and precious metals. Exploration may entail desktop studies, remote sensing, field surveys, soil and geochemical studies, geophysical surveys and exploration drilling.

Interested and affected parties or neighbours are invited to register with the environmental consultant to receive further documentation and communication regarding the project. Please register at:

Fax: 088-62-6368 or E-Mail: epl9972@thenamib.com.

Registration and preliminary comments should reach our offices by latest 21 March 2025.

Should you require any additional information please contact Geo Pollution Technologies at telephone 061-257411.

Sincerely,

Geo Pollution Technologies

André Faul

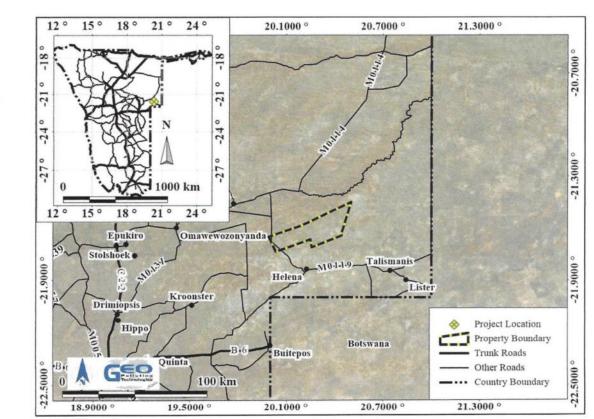
Environmental Practitioner





Page 1 of 2

Directors: P. Botha (B.Sc. Hons. Hydrogeology) (Managing)



Project Location

Page 2 of 2

EPL 9972 - Notification Letter - March 2025

Geo Pollution Technologies (Pty) Ltd

Proof of Ministerial Notifications



TEL.: (+264-61) 257411 • FAX.: (+264) 88626368 CELL.: (+264-81) 1220082 PO BOX 11073 • WINDHOEK • NAMIBIA E-MAIL: gpt@thenamib.com

To:

The Executive Director Ministry of Environment, Forestry and Tourism Private Bag 13306 Windhoek MINISTRY OF ENVIRONMENT,
FORESTRY AND TOURISM
EN ROWENTAL COVY SS ONER

D 5 MAR 2025

Dear Mr Nghitila

Re: ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLANFOR EXCLUSIVE PROSPECTING LICENCE 9972, OMAHEKE REGION

Geo Pollution Technologies (Pty) Ltd was appointed by Votorantim Metals Namibia (Pty) Ltd to apply for an environmental clearance certificate (ECC) for the proposed exploration activities related to exclusive prospecting licence (EPL) 9972 in the Otjombinde Constituency of the Omaheke Region. The ECC is required as per the Environmental Management Act No. 7 of 2007 (EMA). In support of the ECC application, an environmental scoping impact assessment (EIA) and environmental management plan (EMP) will be submitted to the Ministry of Environment, Forestry and Tourism's Directorate of Environmental Affairs (DEA).

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Environmental Assessment Practitioner: Geo Pollution Technologies (Pty) Ltd

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The EPL overlaps with communal land and resettlement farms. Public participation for the project is ongoing and the constituency councillor, Otjombinde Communal Conservancy and Community Forest Committee, Traditional Authorities and Ministry of Environment, Forestry and Tourism officials for the particular area have been engaged. Should your office have any interest in the EIA process, you are herewith invited to register with the environmental consultant to receive further documentation and communication regarding the project.

Two public meetings are scheduled for the project, of which the details are as follows:

- 12 March 2025, Talismanis Community Hall, 10:00 am
- ♦ 13 March 2025, Helena Primary School, 10:00 am

Please register at:

Fax: 088-62-6368 or E-Mail: epl9972@thenamib.com.

Note that the environmental assessment for EPL 9972 coincides with EPLs 9973, 9974 and 9975, all in the same constituency and for the same Proponent. The details of which are also communicated to your office in separate notifications.

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Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)



Tel.: (+264-61) 257411 6 Fax.: (+264) 88626368

RECEIVED

PO BOX 11073 & WINDHOEK & NAMIBIA E-Mail: gpt@thenamib.com

2025 -03- 0.5

To:

The Executive Director Ministry of Mines and Energy Private Bag 13297 Windhoek

05 March 2025

THURST CO.

Dear Mr Ithindi

Re: ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLAN FOR EXCLUSIVE PROSPECTING LICENCE 9972, OMAHEKE REGION

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Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

05 March 2025



TEL.: (+264-61) 257411 **\(\Delta\)** FAX.: (+264) 88626368 CELL.: (+264-81) 1220082 PO BOX 11073 **\(\Delta\)** WINDHOEK **\(\Delta\)** NAMIBIA E-MAIL: gpt@thenamib.com

To: The Executive Director

Ministry of Agriculture, Water and Land Reform

Private Bag 13184 Windhoek

Dear Ms Nghituwamata

Re: Environmental Assessment and Management Plan For Exclusive Prospecting Licence 9972, Omaheke Region

Geo Pollution Technologies (Pty) Ltd was appointed by Votorantim Metals Namibia (Pty) Ltd to apply for an environmental clearance certificate (ECC) for the proposed exploration activities related to exclusive prospecting licence (EPL) 9972 in the Otjombinde Constituency of the Omaheke Region. The ECC is required as per the Environmental Management Act No. 7 of 2007 (EMA). In support of the ECC application, an environmental scoping impact assessment (EIA) and environmental management plan (EMP) will be submitted to the Ministry of Environment, Forestry and Tourism's Directorate of Environmental Affairs (DEA).

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Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

Keetmans water taps run dry

Steven Klukowski

EETMANSHOOP-Theresidents of Keetmanshoop must find alternative sources of water for the next two days as supply interruptions and complete cut-offs will be experienced in some areas of the town.

The national water utility. NamWater said this was due to unforseen maintenance and repair works which

had caused interruptions. NamWater's //Kharas regional head Andries Kock said in a communique to the Keetmanshoop municipality, the town was experiencing low reservoir levels due to technical issues with their pumps along the main pipeline, which have been detected since Saturday.

"Due to additional technical challenges, the supply will not be sufficient to meet the town's demand, leading to ongoing water shortages until the issues are fully resolved, " the statement read.

NamWater estimated that full supply

capacity will only be restored by Wednesday, 05 March 2025. "In the meantime, residents, particularly those in high lying areas such as Westdene may experience low water pressure and intermittent supply disruptions, "said Kock, adding that residents should use water sparingly until the situation stabilises.

The document added that NamWater, in consultation with the Keetmanshoop municipality, will asses the situation and may need to implement temporary water rationing in certain areas



to mange the available supply effectively. Kock said the situation had worsened in the meantime as another mine supply water pipe leakage was reported

yesterday morning.

He said even if all repairs and maintenance were carried out, the reservoir levels will remain low in the early stages, leading to interruptions in some residential areas and cut-offs in others.

Residents at the town expressed mixed feelings about the sudden, unforeseen water crisis. They bemoaned that the municipality had not warned them about the supply disruptions in advance.

In a social media post yesterday the Keetmanshoop municipality acknowledged the crisis, promising to provide regular updates to the community on progress.

PUBLIC PARTICIPATION NOTICE Environmental Assessment: Exclusive Prospecting Licences 9972, 9973, 9974 and 9975, Otjombinde Constituency, Omaheke Region

Shikongo lauds public for respecting law

Inspector General of the Namibian Police, Lieutenant General Joseph Shikongo has thanked Namibians for the manner in which they conducted themselves during the mourning of Founding President Sam Nujoma.

Shikongo particularly thanked Namibians for ensuring a smooth and dignified send-off for Nujoma, who died on 08 February 2025.

According to Shikongo, police officers were deployed across the regions to ensure safety and security. Nujoma's body was taken to seven regions of Omusati, Ohangwena, Kavango East, Zambezi, Otjozondjupa, Erongo and ||Kharas, before it was flown to Windhoek in the Khomas region for

burial at the Heroes Acre.

In all the regions, Nujoma's body was transported in a military procession and lay in state in all regions under the guard of the Namibian Defence Force to allow Namibians to pay their

last respects.
"I should thus thank Namibians, from the bottom of my heart, for the manner in which they conducted themselves in ensuring we give our founding father a dignified send-off. We had no issues. Thank you, Namibians, let us continue doing this in events of this nature or any other event. Let us make sure our international dignitaries confirm Namibia as a country of order

and peace," Shikongo said. He spoke to Nampa on Saturday, shortly before the commencement of Nujoma's the funeral

service at Heroes' Acre in Windhoek.

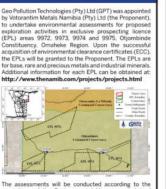
Shikongo said the police also did not encounter any issues related to crime, during the procession of Nujoma's body from Windhoek to other regions. "The process started on 20 February 2025 from the Hosea Kutako International Airport. I attended

the arrival at Ondangwa and we proceeded to Okahao. The events went very well," he noted.

The low crime rate during the mourning period, he stressed, is attributed to Namibians' patriotism in ensuring that Nujoma's mourning period was



Lieutenant General Joseph Shikongo



sessments will be conducted according to the ions of the Environmental Management Act of regulations of the Environmental Management 2007. We hereby inform the public of two m scheduled to be conducted for the projects:

Tel: +264-61-257411 Fax: +264-88626368 E-Mail: vmn@thenamib.com



MINISTRY OF WORKS AND TRANSPORT **OSHANA REGION GOVERNMENT AUCTION - DAY 1** MINISTRY OF WORKS WILL HOLD A PUBLIC AUCTION: LOOSE ITEMS VIEWING DATE: MONDAY 03 MARCH 2025 from 09H00 to 16H00 AUCTION DATE: TUESDAY 04 MARCH 2025 AT 10H00 VENUE: MINISTRY OF HEALTH AND SOCIAL SERVICES - OSHAKATI HOSPITAL Items to be sold TABLES, BEDS, HEATER ELECTRIC, MACHINE DIATHERM, TROLLEY, POT ALUMINIUM, URNS, WHEEL CHAIR, DELIVERY BEDS, SUCTION MACHINE, SCALE BABY, AIRCONS, MACHINE VITAL SIGN MONITOR, X-RAY DEVELOPER, DOOR WWODDEN, MATTRESSES, LOCKER BEDS, FANS, COMPUTERS, SEWWING MACHINE, POT TOILET, FRIDGE, AND MUCH MORE.... Registration: N\$1000.00 (Cash Only) SWIPE MACHINE AVAILABLE Terms and Conditions apply, No VAT Details are subject to change without prior notice ALL PAYMENTS MUST BE MADE BY 15HOO HOURS ON AUCTION DATE

Contact: Mr G Ggongo 081 287 3701, E Steenkamp 081 249 2338



5

Eveline de Klerk

SWAKOPMUND - The Democratic Resettlement Community (DRC), a township in Swakopmund, which is home to over 40 000 residents, has long faced challenges with criminal activities, leaving residents in constant fear for years.

constant fear for years.
However, thanks to a generous
donation from Rössing Uranium,
the community now has access to
police services, after the mining
company constructed a police
station.

Rössing constructed a state-ofthe-art police station to the tune of N\$23 million. The station, which was inaugurated on Thursday, was constructed within five months. A total of 22 officers have been assigned to the new station.

The facility boasts four holding cells, each with an exercise courtyard, an interrogation room, a doctor's consultation room, a visitors' room, an armoury room, an evidence room, four offices, a boardroom, ablution facilities, a secure passage for inmate drop-offs, dining area, a pantry, a laundry room, staff kitchen and a server/radio room. Safety and security minister Albert Kawana applauded the mine for

their generous donation while acknowledging the ongoing challenges faced by residents due to the lack of a local police station.

Kawana said the station would significantly improve police response times, bringing law-enforcement services closer to the community and enhancing public safety. Police supremo Joseph Shikongo on the day also expressed gratitude towards Rössing Uranium, saying the station is more than just bricks and mortar.

"It is a testament to the

"It is a testament to the commitment of the Namibian government, the ministry of homeaffairs and key stakeholders, including Rössing Uranium whose financial contribution made the facility possible," he said.

Rossing Uranium's board chairperson, Steve Galloway, pointed out that they opted to construct the police station to keep the community as well as their employees safe.

"Manypeopleinthecommunity lived in constant fear, not knowing whether they would wake up to a safe tomorrow.

Many of our employees had been victims while on their way to work or returning home," he said. -edeklerk@nepc.com.na



Service... The new police station in Swakopmund's DRC settlement.

Photo: Contributed

VACANCY

NamPower (Pty) Ltd, an equal opportunity employer, invites candidates who are passionate about the Electricity Supply Industry and with an uncompromising standard of excellence, to apply for a career in the industry.

Job Grade: Business Unit: Duty Station: Foreman: Bollermaker 9 (Peromnes) Generation Van Eck Power Station

For enquiries, contact: HC Practitioner: Generation

If this position appeals to you, submit your job application via NamPower's e-recruitment platform on https://recruitment.nampower.com.na

In return for your skills, NamPower offers a generous remuneration package and attractive fringe benefits in line with the seniority of the position.

NB: FEMALE AND PREVIOUSLY DISADVANTAGED PERSONS ARE ENCOURAGED TO APPLY. ONLY SHORTLISTED CANDIDATES WILL BE CONTACTED.

Shangula commissions medical boat for Zambezi

Universal healthcare... Health minister Dr Kalumbi Shangula (left) on Friday officially commissioned a purpose-built medical boat aimed at bridging the gap in healthcare access for communities in flood-prone areas. Photo. Albertina Nobale

Albertina Nakale

ATIMA MULILO Health Minister Dr Kalumbi Shangula on Fridaycommissioned a purposebuilt medical boat aimed at bridging the gap in healthcare access for communities in floodprone areas in Zambezi region.

"We gathered here today for a very special occasion to witness the commissioning of a purpose-built boat, designed to facilitate the transportation of health workers and patients on the watercourse," said Shangula. The boat, donated by the United States President's Emergency Plan for AIDS Relief (PEPFAR) at a cost of over N5600 000, is set to serve as a crucial healthcare lifeline for remote communities.

The minister said that the donation marks a significant milestone in Namibia's ongoing

mission to provide integrated, affordable and quality healthcare services.

services.
"The geography of the
Zambezi Region presents unique
challenges, particularly during
the rainy season when flooding
disrupts access to essential
health services," Shangula stated.
Shangula added the boat is

Shangula added the boat is a targeted solution to ensure that all citizens, irrespective of location, have access to necessary healthcare services.

necessary healthcare services.

The introduction of the medical boat aligns with Namibia's recently approved Universal Health Coverage (UHC) policy.

(UHC) policy.
"Namibia's UHC Service
Coverage Index currently stands
at 63%—one of the highest in the
SADC region," Shangula noted.

Recognising the growing impact of climate change on healthcare service delivery, the minister underscored the need for innovative solutions. "Recurrent floods not only disrupt everyday life but also hinder critical healthcare services. This boat is not just a mode oftransport-it is a lifeline. It can make a huge difference in maternal and child health services, as well as in managing disease outbreaks," he said.

Speaking at the event, Kabbe North constituency councillor Bernhard Sisamu echoed Shangula's sentiments, urging local communities to take responsibility for maintaining the donated boat. "This boat is an invaluable

"This boat is an invaluable resource, and it is imperative that we all take ownership of it. Let us work together to safeguard and maintain it so that it can serve us for manyyears to come," Sisamu stated.

-anakale@nepc.com.na

PUBLIC PARTICIPATION NOTICE ENVIRONMENTAL ASSESSMENT: EXCLUSIVE PROSPECTING LICENCES 10042 TO 10045, OMAHEKE, KHOMAS AND HARDAP REGIONS

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by Votorantim Metals Namibia (Pty) Ltd (the Proponent), to undertake environmental assessments for proposed exploration activities in exclusive prospecting licence (EPL) areas 10042, 10043, 10044 and 10045, Omaheke, Khomas and Hardap Regions. Upon the successful acquisition of environmental clearance certificates (ECC), will the EPLs be granted to the Proponent. The EPLs are for base, rare and precious metals and industrial minerals. Additional information for each EPL can be obtained at:

http://www.thenamib.com/projects/projects.html



The assessments will be conducted according to the Environmental Management Act of 2007 and its regulations of 2012. Interested and affected parties are invited to register with GPT for the opportunity to share comments, issues or concerns related to the projects, for consideration in the assessments. Registrations, information requests and comments should be submitted to GPT by 21 March 2025.

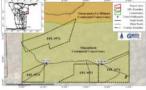
Andre Faul
Geo Pollution Technologies
Tel: +264-61-257411
Fax: +264-88626368
E-Mail: ymn@thenamib.com



PUBLIC PARTICIPATION NOTICE

Environmental Assessment: Exclusive Prospecting Licences 9972, 9973, 9974 and 9975, Otjombinde Constituency, Omaheke Region

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by Votorantim Metals Namibia (Pty) Ltd (the Proponent) to undertake environmental assessments for proposed exploration activities in exclusive prospecting licence (EPL) areas 9972, 9973, 9974 and 9975, Otjombirde Constituency, Cmaheke Region. Upon the successful acquisition of environmental clearance certificates (ECC) the EPLs will be granted to the Proponent. The EPLs are for base, rare and precious metals and industrial minerals. Additional information for each EPL can be obtained at https://www.thenamib.com/projects/projects.html



The assessments will be conducted according to the regulations of the Environmental Management Act of 2007. We hereby inform the public of two meetings scheduled to be conducted for the projects:

12 March 2025, Talismanis Community Hall, 10:00 am 13 March 2025, Helena Primary School, 10:00 am

Interested and affected parties are invited to registe with GPT by 20 March 2025. The deadline for comments issues or concerns related to the EPLs, for consideration in the assessments, will be communicated to registere

André Faul Geo Pollution Technologies Tel: +264-61-257411 Fax: +264-88626368 E-Mail: vmn@thenamib.com



Press Notice: The Namibian - 3 and 10 March 2025



THE NAMIBIAN

mOshiwambo 16 Monday 10 March 2025

Ofamili otai pula ouvelele kombinga vefyo laEiseb

OFAMILI yomunambelewa weameno Francis Eiseb, oo a xulifila momunyeka wahomata oo wa kanififa ehangano lokulandifa okawe ledina Namib Desert Diamonds (Namdia) okawe kongushu

Diamonds (Namdia) okawe kongushu yeemiliyona N3350, oya hala omany-amuko kombinga yoikumungu oyo ya kundukida efyo laye.
Ova hala okushiiva kutya omolwashike ehangno la dopa okunghonopeka eameno lalo odula ya dja ko, nande okwa li la londodwa kopolifi kutya ehangano okwa li la tanwa notashi dulika li ka ningilwe omunyeka. Mumwainamati waEiseb, Godfried Eiseb, Etine okwa lombwela oThe Namibian kutya ofamili o in a Godfried Eiseb, Etine okwa lombwela oThe Namibian kutya ofamili oi na omapulo kombinga yelongopauyelele olo lihe po nosho yo ekwatafano koNamdia nopolifi kombinga yefyo laEiseb. Otava ti otashi dulika pu na sha tashi

holekwa.

"Omolwashike Namdia ta vandie ashike ouyelele paife konima ashike ouyelele paife konima mum-wamememati wetu kwa Ii a dipawa? Omolwashike kwa Ii inave u yandja eshi kwa Ii va londwelwa kutya otashi dulika ku ka ningwe omunyeka odulaya dja ko?" Godfried osho a pula ngaho. Eiseb (57) okwa Ii a dipawelwa pehangano opo pefimbo lomunyeka momafiku 18 Januali.

momatiku 18 Januali.
Godfried okwa popya kombinga yoshibofa shefyo lapuka, nokwa hala okushiiva
kutya omolwashike mumwainamati kwa li
adengelwa ay konhele oko kwa ningilwa
omunyeka omanga kwa li ehe li moilonga.
Okwa wa hawa shi kwa niki sanisha na wakeonia

Okwa pula yo vali kombinga yeelopota dopolifi odo da yooloka. Godfried okwa

nangeshefa wokawe akula Doron Cohen, oo e li yoo ombangi yepangelo, kutya moshiningwanima omu oku na mo shike. Cohen vati okwa li e na oukaume wakola naEndjala: "Otwa hala okushiiva

wakola naEndjala: "Otwa hala okushiiva kutya olyelye a dipaya munwamene. Inatu hala okuya ouyuki moshipala, ashike ova mwena unene, omanga twa kanifa mumwameme," Godfried osho a ti ngaho. Omupedu inspkta wopolifi Elias Mutota muFeshulauli okwa ila i ombwela oThe Namihian kutya opolifi okwa li ya kufila ko Namdia kutya opoa fa pu na omalongekido omunyeka odula ya dja ko. "Okwa li twa ninga oshoongalele navo ndee hatu va londoda kutya otu na ouyelele

ko. "Okwa li twa ninga oshoongalele navo ndee hatu va londoda kutya otu na ouyelele kombinga yomunyeka wa longekidwa. Otwe va lombwela va kale va tonata nokuyambula po eameno lavo," Osho a ti ngaho. Rui Tyitende, omundjadjukununi womilandu dopashiwana, naye okwa pula kutya oshike ewiliko laNamdia lihe na eameno lakola li amene emanya olo

na cameno lakola li amene emanya olo lina ongushu.
"Ohatu fattulula ngahelipi kutya eedjo dopaushitwe odo di na ongushu yeebili-yona oda kala tadi amenwa da fa oinakautu oyo ngeno ya tuvikiwa metungo omo ilo omatangara" Osho a pula ngaho. Kakele kuAngula Namdia okwa kufa mo ovanailonea ayeeshe mongulu yova-

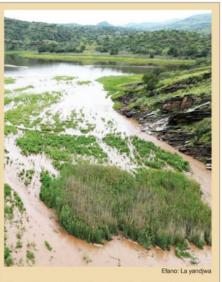
Kakele KuAngula Namdia okwa kufa mo ovanailonga aveshe mongudu yova-feekelwa moshiningwanima omu. Ehangano Etine okwa li la pitifa omukanda womapandja atatu tau yandje ouyelele kombinga yomunyeka. "Pandodo ei, kapu na nande etomeno lekasifizasal, luta seen asemalikasa omunailona.

lokwiitavela kutya opu na omunailonga umwe, kakele komunambelewa weameno hala yoo vali okushiiva kutya omu- oo a mangwa po, kwa li a kwatelwa mo-



Francis Eiseb

munyeka omu," Omupopiliko waNamdia Beverley Coussement osho a ti ngaho. Angula (45) oye umwe womovafeekel-wa vavali owo va mangwa po. Omutivali oShololo (45). Ewilikongodu laNamdia ola tula pedu omukulunhuwiliki, Alisa Amupolo, nosho yoomukulunhu wilonga Uaharoka Kauta nomuwiliki weameno Paulinus Sheyapo opo li kwashiipaleke "omakonakono omeni a manguluka". Omukanda waNopo ii kwashinpateke omakonakono omeni a manguluka". Omukanda waN-amdia owe ya konima omuleli wongudu yomilameno yopambelewa McHenry Ve-naani Etitatu kwa li a ponokela omuprima naani Etitatu kwa li a ponokela omuprima minista Saara Kuugongelwa-Amadhila nomapulo momutumba wopashiwana kutya oshike epangelo la mwena ashike kombinga yomunyeka.
Omuleli woPopular Democratic Movement Etine okwa lombwela oDesert FM kutya ngeno okwa li ina pula, Namdia ngeno ina iya sha.
"Ngeno okwa li haame, ngeno ouyelele ou ou li ashike ponhele yonhumba ndee ngeno kapu nande omunhu umwe a pewa ouyelele," Osho a ti ngaho.



OMULOKA ... Ondama yaAvis Etitatu okwali ya mona omeva awana. Noimeno otai monika ya ndjidja nawa.

"Epangelo nali manguluke kombinga kutya opolifi oya lombwela oshiwana ku-

"Epangelo nali manguluke kombinga yoshiimia eshi ndee tali tu lombwele kutya oshike naana sha ningwa po lela.
"Natu lombwelwe keshe efimbo. Ouwe ava okwa li va monika. Va monika ngahelipi? Nava dule okuyandja ouyelele uhapu kashona." Osho a ti ngaho.

Okwa ti opolifi oja lombwela oshiwana ku-ya ouyeleke woshili noumbangi oo tau dulu okulongifwa mombangu.

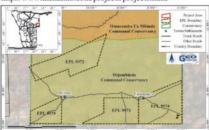
Okwa ti opolifi inai mwena nande

uhapu kashona," Osho a ti ngaho.
Omupopiliko wopashiwana wopolifi omupodu komufala Kauna Shikwambi Etine okwa lombwela oThe Namibian

PUBLIC PARTICIPATION NOTICE Environmental Assessment: Exclusive PROSPECTING LICENCES 9972, 9973, 9974 AND 9975, OTJOMBINDE CONSTITUENCY, OMAHEKE REGION

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by Votorantim Metals Namibia (Pty) Ltd (the Proponent), to undertake environmental assessments for proposed exploration activities in exclusive prospecting licence (EPL) areas 9972, 9973, 9974 and 9975, Otjombinde Constituency, Omaheke Region. Upon the successful acquisition of environmental clearance certificates (ECC), the EPLs will be granted to the Proponent. The EPLs are for base, rare and precious metals and industrial minerals. Additional information for each EPL can be obtained at:

http://www.thenamib.com/projects/projects.html



The assessments will be conducted according to the regulations of the Environmental Management Act of 2007. We hereby inform the public of two meetings scheduled to be conducted for the projects:

- 12 March 2025, Talismanis Community Hall, 10:00 am
- 13 March 2025, Helena Primary School, 10:00 am

Interested and affected parties are invited to register with GPT by 20 March 2025. The deadline for comments, issues or concerns related to the EPLs, for consideration in the assessments, will be communicated to registered parties.

Geo Pollution Technologies Tel: +264-61-257411 Fax: +264-88626368

E-Mail: vmn@thenamib.com







Technologies Registration provides you with an opportunity to subset of comments, bases or concerns related to the EPLs, for consideration in the comments. Please and your writing and comments when the resistance of the EPLs, for consideration in the comments. Please and your writing and comments. Please and your writing and comments when the resistance and an experiment when the resistance and comments are prepared to the resistance and comments when the resistance and comments are proposed to the resistance and commen

Site Notice 3 – At Talismanus Clinic



Site Notice 3 -Member of the GPT Team Explaining the Project to Interested Parties who Saw the Notice at the Clinic









Minutes of Meeting

Re: Meeting: Environmental Impact Assessments for EPLs 9971, 9972, 9974 and 9975 in the

Omaheke Region

Date: Monday, 17 February 2025

Time: 14:00

Venue: Otjombinde Constituency Office

In attendance:

Name	Position	Organisation
Wenzel Kavaka	Regional Councillor	Otjombinde Regional Council
Jacqualine Hoëses	Ranger	Ministry of Environment, Forestry and Tourism (Gobabis)
Georgina Swartz	Warden	Ministry of Environment, Forestry and Tourism (Gobabis)
T. Mukuahima		NamPol
Silbanus Hoveka	Traditional Councillor	Hoveka Traditional Authority
Abedi Kaiko	Conservancy Management Committee, Chairperson	Otjombinde Conservancy and Community Forest
Percy Tjijenda	Conservancy Management Committee, Vice Treasurer	Otjombinde Conservancy and Community Forest
Benitha Kamboua	Conservancy Management Committee, Secretary	Otjombinde Conservancy and Community Forest
David K. Tjozongoro	Senior Traditional Councillor	Ovambanderu Traditional Council
Paulina Geelbooi	Senior Traditional Councillor	Ovambanderu Traditional Council
Christian Brunette	Geologist	Votorantim Metals Namibia
André Faul	Environmental Scientist	Geo Pollution Technologies

Abedi Kaiko welcomed everyone at the meeting and allowed the different parties to introduce themselves.

André Faul explained that the purpose of the meeting is to establish communication channels and information sharing between the different parties involved, and to allow for cooperation during, and after, the environmental assessment process. He further briefly explained the environmental assessment process and gave a short overview of what exploration typically entails. He stressed that the first stages of exploration are not invasive and only if a specific area is suspected of having a resource, more intrusive methods are used which may include exploration drilling.

Christian Brunette provided background information on Votorantim Metals Namibia, stating that it is a Namibian company focussed entirely on exploration, with a parent company in Brazil. Votorantim Metals Namibia has exclusive prospecting licences (EPLs) all over Namibia.

André Faul noted that Votorantim Metals Namibia has not officially been issued with the EPLs yet, but only with an "intention to grant" by the Ministry of Mines and Energy, on condition that the environmental assessment is conducted and that an environmental clearance certificate be issued. Once the EPL is then granted, and Votorantim Metals Namibia wish to access the land, a surface access agreement has to be reached.

A question was raised on whether locals will get opportunities for employment once Votorantim Metals Namibia start exploration in the area. It was affirmed that some unskilled labourers may be sourced from the area for manual labour like clearing vegetation to provide access for the exploration teams to conduct geophysical investigations or drilling.

Mr Tjorongoro stated that they do not have any objection to the proposed activities as long as all communication, notifications and requests are made through the office of the Regional Councillor. André Faul said that when the environmental assessment is submitted to the Ministry of Environment, Forestry and Tourism, it must be accompanied by letter(s) of support from relevant authorities. The

same will be required once Votorantim Metals Namibia wants to access the area. These will then all be made via the office of Mr. Kavaka.

With no further matters to discuss, the meeting was adjourned.

Minutes of Meeting

Re: Meeting: Environmental Impact Assessments for EPLs 9971, 9972, 9974 and 9975 in the

Omaheke Region

Date: Thursday, 20 February 2025

Time: 09:00

Venue: NACSO Boardroom, Windhoek

In attendance:

Name	Organisation
Maxi Louis	Namibian Association for CBNRM Support Organisations (NACSO)
Uaanao Katjinjaa	Namibian Association for CBNRM Support Organisations (NACSO)
John Hazam	Namibia Nature Foundation (NNF)
Tunnomukwathi Angula	Namibian Association for CBNRM Support Organisations (NACSO)
Usiel Ndjavera	World Wide Fund for Nature (Namibia)
Michelle Dillmann	Votorantim Metals Namibia
Rafael Freitas	Nexa Resources
Sem Cambiete	Votorantim Metals Namibia
André Faul	Geo Pollution Technologies

Maxi Louis welcomed everyone at the meeting and allowed the different parties to introduce themselves. André Faul then explained that the purpose of the meeting is to establish communication channels and information sharing between the different parties involved, and to allow for cooperation during, and after, the environmental assessment process. A general discussion ensued between all parties present at the meeting and the following is a summary of the key insights gained from the discussion:

- There are no resident non-governmental organisations (NGOs) in the Otjombinde Conservancy, but the NNF does periodically get involved with projects in the conservancy.
- ♦ Among others, NACSO works towards ensuring that business developments/activities in conservancies take notice of the local communities and inform and involve them in various processes of setting up such businesses. Secondly, NACSO also ensures that environmental impact assessments (EIAs) follow the correct procedures and processes for activities in conservancies requiring assessment and that all support organisations associated with NACSO are involved.
- It is important to also inform the Omuramba Ua Mbinda Communal Conservancy about the EIA, even if only a small portion of the EPL overlaps with the conservancy.
- It should be established whether the communal conservancies and the community forests share the same management committees or not. If not, both should be informed and considered.
- ♦ The overarching Regional Conservancy Association must also be involved in the EIA process. NACSO will share the contact details with Geo Pollution Technologies.
- ♦ The conservancy Game Management and Utilization Plan (GMUP) must be considered in the EIA process. NACSO will share this with Geo Pollution Technologies.
- ♦ The latest conservancy profile and annual report must be considered in the EIA process. NACSO will share these with Geo Pollution Technologies.
- Public meetings should be conducted in Otjombinde (Talismanus) and Helena. Notifications should be aired on the Herero radio station of the Namibian Broadcasting Corporation (NBC).
- ♦ The NNF can assist with disseminating information regarding the EIA and the public consultation process to the conservancies.

With no further matters to discuss, the meeting was adjourned at 09:40.

Minutes of Meeting

Public meeting: Environmental Assessment for Exploration Activities on EPL 9972, 9973, 9974 and 9975, Omaheke Region

	Meeting Attendance: Environmental A ivities on EPL 9972, 9973, 9974 and 997	
Name & Surname	Organisation/Address	Signature
BEDI KAIKO	ORL - SETTLEMENT OFFICE	10
malia HAMSERO	Cleaner Settlement Office	MW
Ollen Titaka	Comminity member	(R)
dex Noux Kamutuezu	Conseverney	SK m S
SILBAHUS HOVERA.	Hovera T.A.	1000
napuluaza Marenga	Community MEMBER	kg. S
BRIAN TIKAMBA	Private	MAR
Tiona Triramba		Som
GIDEON TIPEPA	TRADITIONAL COUNCIZOR	8
CliDEON NOJAVERA	FARMER	& ejayera
INST MUKUAHIMA	NAMPOL	W
Reinhold Hengari	DWS5C	(Splewie

Name & Surnam e	Organisation/Address	Signature
Clifford Kotjinjo	OTSOMBIFBE CONSERVANCY & COMMUNITY FOR	w IMM of so
Mehanys Kapipaka	@/comy/cary	At East
Antonias malife	- min Stry of water syly	Turung ()
ORPA Kaufine	MOHSS /	Deladere
Ellis R. Adjavera	otiombinde Tarm	Borne
NGALNIGENBARENGA	OFINA TRANSING ENTERPRISE	#100
Josef Hymns.	Horseys wel	Allquery C:
Gerlardt Huambi	Ota.	Gettettoansi.
Melania Kandivu	Klip-aar Resident	Withandor
KRICK Kaposamba	OKOUTTONE TA	15750 0812840627.
Rumana Myoro	Oranefore 02.	Mauri
~	<u> </u>	

Date:	12 March 2025
Time:	10:00 AM
Venue:	Talismanus Town Hall, Otjombinde Constituency, Omaheke Region

List of Abbreviations

EIA	Environmental Impact Assessment
EPL	Exclusive Prospecting License
GPT	Geo Pollution Technologies (Pty) Ltd
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism

The meeting was chaired by André Faul and translation from English to Otjiherero and vice versa was performed by Abedi Kaiko.

André Faul made introductions and continued to give a short presentation on the proposed exclusive prospecting licence areas in the Constituency and explained the purpose and procedures of the environmental assessment process. He stressed that the first stages of exploration are not invasive and only if a specific area is suspected of having a resource, more intrusive methods are used which may include exploration drilling. After the presentation the audience was provided with an opportunity to ask questions regarding the project.

An audience member asked what the benefits for the community will be and if they come across an area where only one person resides, how will they ensure their protection and safety. André Faul responded that during the exploration phase, benefits to the community may be limited, primarily in terms of employment. Benefits do include the economic injection into the local community when exploration teams require services such as lodging, food and fuel. Unskilled workers may be employed to assist with clearing areas for geophysical investigations and clearing of drilling areas. If drilling takes place, it will provide valuable information regarding groundwater sources. He further stated that all land owners must be contacted prior to the exploration team accessing the land. He acknowledged the difficulty of contacting all land owners due to the remoteness of the area and the lack of formal communication channels. He mentioned the importance of involvement of authorities, including the MAWLR and the regional council. Additionally, he reassured attendees of GPT and the client's cooperation with the Otjombinde conservancy committee and the constituency office. The objective is to identify residents, obtain their contact details, and make prior arrangements to determine accessible and restricted areas.

An audience member stated that he encountered an individual who have received permission from one of the traditional authorities and the Ministry of Mines and Energy to conduct exploration in their area. This individual did not consult the community beforehand. While pointing at a map, the attendee requested confirmation from André Faul, asking whether multiple parties can conduct exploration in the same area. André Faul stated that there should not be two or more EPLs overlapping. He asked the attendee to approximately identify the area on the map. He explained that within the EPL, the specific area in question has mining claims and is entirely excluded from the EPL. He added that although there are established procedures and regulations, not everyone follows them. He informed attendees to the MEFT website, where complaints regarding such matters can be submitted. A discussion in Otjiherero ensued between members of the audience. The details of the conversation pertained to the mining claim issue

A member of the audience asked how long the environmental assessment will take and how long it will take before the company starts exploration. André Faul stated that the environmental assessment needs to be submitted by latest May 2025 to meet the Ministry of Mines deadline which is towards the end of 2025. The timing of exploration depends on Votorantim's schedule, but it can only start after the environmental clearance is issued, thus soonest 2026.

It was asked if the exploration team will just come onto their land once environmental assessment is finished. André Faul stated that they will have to first engage with the various authorities such as the chairman of the constituency office, the conservancy committee, etc. in order to establish communication channels between themselves and the land owners. Surface access agreements must also then be negotiated before they can access the areas.

A concern was raised that there is a big information gap between the Otjombinde community and the Ministry of Mines and Energy. This gap needs to be closed and the Ministry should engage with the community. The Otjombinde community is remote and does not gain access to information from the Ministry. That is why people can show up with mining licenses without the locals knowing about it. André Faul mentioned that he will include this request in the EIA. He stressed that reaching each and every person residing in the area is extremely difficult and even with the steps taken by GPT, there will still be people who have not heard about Votorantim on the day they start exploration.

A request was made that Votorantim makes themselves know to the local residents so that they are aware of them. Also as they move through the area into different locations, they should notify the communities.

With no further matters the meeting was adjourned.

Minutes of Meeting

Public meeting: Exploration Activities for Votorantim Metals Namibia on EPL 9972, 9973, 9974 and 9975, Omaheke Region

	Meeting Attendance: Environmentivities on EPL 9972, 9973, 9974	
Name & Surname	Organisation/Address	Signature
S.T. KATI UMNJO	Busens	08161113 48 1570
S.J. /Coffingo	HELENA	OF 87213130
V. Kambato	Helena	0813329051 Rappal
c Ruhumba	1+Elena	081 28 92253 ex
8. selina Mbuenole	Heleng	08/4/44729SM
4. S. H. Waseining	Helena	0812690520 Shawing
Welwischha Nolina	Itelena	08/27/0274 4
A. U. Hanjer	He lena	0813913946
PRECIOUS C. TANIANA	Helena	0816840987
Malomy Tikuto	Helena	0814423812 NJ
Rudolf Kaputuaza	Helena	08/6/83332 WIRK
Tizoo	Juizoo	0818571882 Ra

Name & Surname	Organisation/Address	Signature/
Felix RATionny	Organisation/Address Olughers Sales	fe/10813080322 9
/ 0		

Geo Pollution Technologies Exploration Activities of Votorantim Metals Namibia

March 2025

Date:	13 March 2025
Time:	10:00 AM
Venue:	Helena Primary School, Otjombinde Constituency, Omaheke Region

List of Abbreviations

EIA	Environmental Impact Assessment
EPL	Exclusive Prospecting License
GPT	Geo Pollution Technologies
RAP	Resettlement Action Plan

The meeting was chaired by André Faul and translation from English to Otjiherero and vice versa was performed by Abedi Kaiko.

André Faul made introductions and continued to give a short presentation on the proposed exclusive prospecting licence areas in the Constituency and explained the purpose and procedures of the environmental assessment process. He stressed that the first stages of exploration are not invasive and only if a specific area is suspected of having a resource, more intrusive methods are used which may include exploration drilling. After the presentation the audience was provided with an opportunity to ask questions regarding the project.

A meeting attendee asked whether Votorantim Metals will bring their own employees for the work or if members from the local community would be included. André Faul responded by explaining that during the exploration phase, only a small team is required. He further stated that Votorantim already has qualified candidates who are experienced in the work, specifically in the geological aspect. However, he acknowledged that for line-cutting, especially given the area's dense vegetation, local assistance would be needed. He added that if the project progresses to the mining phase, and valuable minerals are found, more workers would be required, creating employment opportunities. He assured that where possible, the local community would be prioritized for support roles.

A question was raised if residents would be compensated if minerals were found on their land and whether they would need to relocate. André Faul explained that if a minable resource is find, a detailed EIA will be required that focus on specifically that area. This will also require a resettlement action plan. He reassured attendees that compensation will be provided if relocation is necessary, with formal negotiations involving Votorantim, the EPL consultants, and the government, as it is government land.

It was asked why the broader community was not invited to the meeting. André Faul explained the challenges in arranging meetings and reaching everyone in a communal area. It is thus best to work through the constituency and conservancy offices to disseminate information as widely as possible.

With no further matters the meeting was adjourned.

Notified and Registered Interested and Affected Parties

Name	Position	ed Parties Organisation		
Andrew Kgosiemang	Chief	Batswana Ba Namibia Traditional Authority		
Clifford Katjinjo	Manager	Otjombinde Communal Conservancy and Community Forest		
Silbanus Hoveka		Hoveka Traditional Authority		
Ronnie Kandapaera	Forestry Official	Ministry of Environment, Forestry and Tourism		
Georgina Swartz	Warden	Ministry of Environment, Forestry and Tourism (Gobabis)		
Jacqualine Hoëses	Ranger	Ministry of Environment, Forestry and Tourism (Gobabis)		
Vetundja Kazapua		Ministry of Environment, Forestry and Tourism - Directorate of Forestry		
John Hazam	Senior Technical Advisor	Namibia Nature Foundation		
Priscilla Mundilo	Senior Technical Advisor ESMS	Namibia Nature Foundation		
Tessa Iiyambula	CBNRM Contact	Namibia Nature Foundation		
T Mukuahima		Nampol		
Calvin Sisamu		NamPower		
Andries Kok	Chief Operations Officer	NamWater		
Jolanda Kamburona	Environmental Scientist Water Quality & ES	NamWater		
Fillemon Aupokolo		NamWater		
Detlivine Katamelo	Chief Community Liaison Officer	Omaheke Regional Council		
Pecka Semba	Office of the Chief Regional Officer	Omaheke Regional Council		
Daniel Marenga	Chief	Ovaherero Traditional Authority		
Erika Ndjavera	Chairlady	Omuramba Ua Mbinda Communal Conservancy and Community Forest		
Abednego Abedi Kaiko	Chairperson (Outgoing)	Otjombinde Communal Conservancy and Community Forest		
Benitha Kamboua	Secretary	Otjombinde Communal Conservancy and Community Forest		
Percy Tjijenda	Treasurer	Otjombinde Communal Conservancy and Community Forest		
Mitchel Ngaujake	Chairperson (New)	Otjombinde Communal Conservancy and Community Forest		
Jacobus Wasserfall	Hunting Operator	Otjombinde Conservancy		
Wenzel Kavaka	Regional Councillor	Otjombinde Constituency		
David K. Tjozongoro	Senior Traditional Councillor	Ovambanderu Traditional Council		
Paulina Geelbooi	Senior Traditional Councillor	Ovambanderu Traditional Council		

Name	Position	Position Organisation	
Eben Nowaseb	Chief Warden for Omaheke Region	Ministry of Environment, Forestry and Tourism (Gobabis)	
Maxi Louis	Director	The Namibian Association of Community Based Natural Resource Management (CBNRM) Support Organisations (NACSO)	
Tunomukwathi Angula		The Namibian Association of Community Based Natural Resource Management (CBNRM) Support Organisations (NACSO)	
Uaanao Katjinjaa		The Namibian Association of Community Based Natural Resource Management (CBNRM) Support Organisations (NACSO)	
Matthew Walters	Manager	World Wildlife Fund	
Usiel Ndjavera		World Wildlife Fund	

Osici regiavera World Writing Luid				
Comments Received	Response			
E-Mail Received From: John Hazam Date: 4 March 2025 A couple of questions: 1. What are you looking for? What are you hoping to find? 2. What technologies are you going to use – are you drilling? – are you using remote satellite technologies?	Thank you for your mail. They are particularly interested in copper deposits, but of course, should they find any other minable resource which falls within the category base and rare metals, industrial minerals and precious metals, they would probably be interested in that too. I attach an EIA for a similar EPL, although in a different area, that we conducted for them. Refer to section 5 for details on the exploration processes. It will be exactly the same for the ones in Omaheke Region.			
E-Mail Received From: Mitchel Ngaujake Date: 24 April 2025 I am Mr Mitchel Ngaujake, the Otjombinde Conservancy chairperson. I read the report and I need time to understand the content since its an area I am not familiar with. I am only responding because today is the due date. From my little understanding, your company wants to explore our area and I wanted to write your company a formal letter but since you have created this platform let me use the opportunity. Our conservancy has a lot of challenges and it is all about ignorance. The biggest problem in our area is that the community is not too aware about the importance of the conservancy that is why we want to start with outreach programmes where we are going to introduce ourselves to the different communities, tell the communities the benefits they will get from the conservancy, recruit and appoint new game guards too mention but a few. For this we need finance. That is one area we need to be assisted with. Secondly, we want to capacitate the executive and the office bearers so that we have the know how to run this conservancy. I am writing to you to please advise us on what to do so that we get help from your company. Waiting to hear from you. Mr Mitchel Ngaujake Otjombinde Conservancy	Dear Mr Ngaujake Thank you for your e-mail. If you have any questions with regard to the contents of the report, you are more than welcome to contact me. Just to clarify, I work for Geo Pollution Technologies. We are a small environmental firm based in Windhoek. We are not the company who wish to do the exploration, we were only appointed by them (Votorantim Metals Namibia) to do the environmental assessment and write the report. Ultimately, it will be Votorantim who will come into the area to do exploration, and only if they are in the end awarded the exclusive prospecting licence (EPL) for that area. We as Geo Pollution Technologies are unfortunately not in a position to give financial assistance, and ultimately the real benefit to the community (and the conservancy) will come if Votorantim do find a resource worth mining in the area and a mining company starts mining in the area. Mining companies typically have a social responsibility and often support local communities with various social and economic upliftment programs. I will nevertheless pass your email and request on to Votorantim.			

Appendix C: Consultant's Curriculum Vitae

ENVIRONMENTAL SCIENTIST

André Faul

André entered the environmental assessment profession at the beginning of 2013 and since then has worked on more than 240 environmental impact assessments including assessments of the petroleum industry, harbour expansions, irrigation schemes, township establishment and power generation and transmission. André's post graduate studies focussed on zoological and ecological sciences and he holds a M.Sc. in Conservation Ecology and a Ph.D. in Medical Bioscience. His expertise is in ecotoxicological related studies focussing specifically on endocrine disrupting chemicals. His Ph.D. thesis title was The Assessment of Namibian Water Resources for Endocrine Disruptors. Before joining the environmental assessment profession he worked for 12 years in the Environmental Section of the Department of Biological Sciences at the University of Namibia, first as laboratory technician and then as lecturer in biological and ecological sciences.

CURRICULUM VITAE ANDRÉ FAUL

Name of Firm : Geo Pollution Technologies (Pty) Ltd.

Name of Staff : ANDRÉ FAUL

Profession : Environmental Scientist

Years' Experience : 24 Nationality : Namibian

Position : Environmental Scientist Specialisation : Environmental Toxicology

Languages : Afrikaans – speaking, reading, writing – excellent

English - speaking, reading, writing - excellent

EDUCATION AND PROFESSIONAL STATUS:

B.Sc. Zoology : University of Stellenbosch, 1999
B.Sc. (Hons.) Zoology : University of Stellenbosch, 2000
M.Sc. (Conservation Ecology): University of Stellenbosch, 2005
Ph.D. (Medical Bioscience) : University of the Western Cape, 2018

First Aid Class A EMTSS, 2017; OHS-Med 2022 Basic Fire Fighting EMTSS, 2017; OHS-Med 2022

PROFESSIONAL SOCIETY AFFILIATION:

Environmental Assessment Professionals of Namibia (Practitioner)

AREAS OF EXPERTISE:

Knowledge and expertise in:

- ♦ Environmental Assessment and Environmental Management Plans
- ♦ Water Sampling, Extractions and Analysis
- Biomonitoring and Bioassays
- ♦ Biodiversity Assessment
- ♦ Toxicology
- Restoration Ecology

EMPLOYMENT:

2013-Date : Geo Pollution Technologies – Environmental Scientist

2005-2012 : Lecturer, University of Namibia

2001-2004 : Laboratory Technician, University of Namibia

PUBLICATIONS:

Publications: 5
Contract Reports +240
Research Reports & Manuals: 5
Conference Presentations: 1