ECC-105-235-REP-06-D

ENVIRONMENTAL SCOPING REPORT PLUS IMPACT ASSESSMENT

EXPLORATION ACTIVITIES ON EPL 7699 INCLUDING THE EXPLORATION AND SMALL-SCALE MINING ACTIVITIES ON MINING CLAIMS 68855 – 68861 AND 67633 IN THE KHOMAS AND HARDAP REGIONS

PREPARED FOR

MERTENS MINING AND TRADING (PTY) LTD

June 2021

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EXECUTIVE SUMMARY

Mertens Mining and Trading (Pty) Ltd propose to undertake exploration activities, bulk sampling and trial processing on Exclusive Prospecting Licence (EPL) 7699. The existing mining claims 68855 - 68861 and 67633 will be converted and consolidated as part of EPL 7699. EPL 7699 is located 25km east-southeast of Rehoboth. The largest part of EPL 7699 is located within the Khomas Region and a small portion overlaps with the Hardap Region.

The proposed project triggers listed activities in the regulations of the Environmental Management Act, No. 7 of 2007, therefore, an environmental clearance certificate is required. As part of the environmental clearance certificate application, an Environmental Impact Assessment (EIA) has been undertaken to satisfy the requirements of the Environmental Management Act, No. 7 of 2007. This environmental scoping report and Environmental Management Plan (EMP) will be submitted as part of the application for the environmental clearance certificate.

The proposed project will entail various types of exploration activities within EPL 7699, which may involve mapping, soil sampling, electromagnetic surveys, drilling and trenching and bulk sampling (6 months with exploration, two trucks per month transportation for processing). Samples are crushed and milled before metallurgical testing is done in an onsite pilot 10t/h flotation plant. Existing onsite infrastructure involves a crusher, mill, flotation plant and a small tailings facility in a retainer dam. A diesel generator provides power onsite to the project. Exploration activities normally cover a three year period of a licence, and is planned to continue over a two-year period to establish a viable resource while metallurgical testing at the pilot plant is taking place at the same time to optimize the processing method for a larger scale and feasible project. If commercially viable concentrations can be defined, the next phase can potentially transcend into mining operations. This phase will be assessed in a separate and detailed environmental impact assessment at the appropriate stage, and therefore is not included in the scope of this assessment.

EPL 7699 is located in the transition zone between the highland shrubland and southern Kalahari vegetation type of the Acacia tree-and-shrub savanna sub-biome. The vegetation is characterized by open expanses of grass, dotted by trees and bushes. Along drainage lines and towards the east the vegetation becomes denser and higher. Like the largest part of Namibia, climatic conditions can be described as semi-arid. Average maximum temperatures vary between 30 and 32°C, and average minimum temperatures between 2 and 4°C. Deviations from these averages are common, with the highest temperatures reaching 38 – 40°C and the lowest temperatures below 2°C. Frost occurs occasionally during winter. Rainfall is highly erratic and unpredictable over the entire area, occurring mostly in the summer months, with average rainfall between 200 and 250mm per year. Average rainfall is subject to a variation coefficient of between 50 and 60%; potential evaporation can reach 2,200mm per year and the average length of sunshine per day varies between 9 and 10

hours. EPL 7699 overlaps with at least 16 farms and the predominant land use is agriculture – more specific extensive livestock farming.

This ESIA was undertaken using a methodology developed by Environmental Compliance Consultancy (ECC) which is based on the International Finance Corporation (IFC) standard for impact assessments and compliant with Namibian laws. Through the assessment process, a review of the site and surrounding environment was completed by undertaking desktop reviews and verification of site data.

Some vegetation will be cleared to create access tracks, working areas, and as a result of exploration activities. Where possible, existing tracks will be used for access and limited areas need to be cleared for the movement and placement of equipment. Removal of big trees is not recommended. In addition, the EMP recommends minimising damage to plants, residing animals and soil.

The impacts of exploration activities with respect to airborne dust are expected to be limited to vehicular and machinery movements, crushing and drilling activities. Milling, crushing and trial processing activities are limited to a small, confined area and tailings are deposited in a small single-point depository retainer dam. The EMP recommends minimizing adverse impacts from these facilities. There will be some release of exhaust fumes from machinery that will impact the immediate vicinity, but will be of short duration. Additionally, there will be associated drilling and machinery noise, which could be a disturbance to residing organisms and immediate neighbours.

Water is a scarce commodity in Namibia and, as such, must always be treated with caution. The hydrology of the area is limited to ephemeral streams and groundwater. The potential for contamination from the proposed activities as well as the existing generator is regarded as minimal if the correct mitigation measures are put in place and if the recommended water studies are undertaken. These mitigation measures for safe guarding water quality are addressed in the EMP. The water study recommendations are made in the hydrology section 5.5 of this report.

Cumulative impacts, which were identified as non-significant, may occur as a result of the potential visual and noise impacts to human receptors. These impacts do not require further assessment and can be mitigated by means of:

- Positioning drill equipment in such a way that it is out of sight from human receptors;
- Limit trenching and bulk sampling as far as possible;
- Barriers or fences shall be used if exploration occurs in locations that may affect residents or livestock;
- Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property; and
- Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon.

The potential environmental impacts that may require further investigation are those related to activities that could cause groundwater contamination and impacts on avian fauna and or high value conservation species.

The extensions of exploration and mining operation were found to have potential significant effects on biodiversity namely birdlife due to the effects of vibration and ambient noise as there are (Ludwig's and Kori Bustards) species that occur within the project area. These birds are ground nesting, and research has shown (Simmons, *et al*., 2015) that these birds are susceptible to ground vibrations and therefore could potentially be directly affected by the project activities.

Mitigation measures outlined in the EMP included possible relocation of species at risk (if viable), ongoing monitoring to determine if activities are impacting birds, altering exploration or mine plans to avoid activities that impact on nesting during nesting periods (egg-laying season is from February-May in Namibia).

Through the ESIA investigation and I&AP consultations, it was determined that these impacts, groundwater and avian fauna, are recommended for further studies and assessments as operational activities of the project expand. Other impacts identified through this assessment and I&AP consultation, could be managed by the implementation of the EMP and recommended mitigation measures to ensure ongoing compliance thereof.

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DEFINITIONS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
AEM	Airborne electromagnetic
AIDS	Acquired Immune deficiency Syndrome
AMT	Audio Magneto telluric
COVID -19	Corona Virus Disease 2019
DEA	Directorate of Environmental Affairs
ECC	Environmental Compliance Consultancy
EMA	Environmental Management Act
EMP	Environmental Management Plan
EPL	Exclusive Prospecting License
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
GSN	Geological Survey of Namibia
HIV	Human Immunodeficiency Virus
I&AP	Interested & Affected Parties
IFC	International Finance Corporation
IHME	Institute for Health Metrics and Evaluation
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
MPMRC	Minerals (Prospecting and Mining Rights) Committee
NDP5	National Development Plan five
NSA	National Statistics Agency
RAB	Rotary Air Blast
SOP	Standard Operating Procedure
SWRD	Stormwater Return Dam
TSF	Tailing Storage Facilities
WRD	Waste Rock Dumps
TB	Tuberculosis

1 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

The purpose of this report is to present the findings of the assessment for the proposed project. The proposed project is to undertake exploration activities, bulk sampling and trial processing on EPL 7699, which are described in detail throughout the report. The existing mining claims 68855 - 68861 and 67633 will be converted and consolidated as part of EPL 7699. The ESIA has been undertaken in terms of the requirements of the Environmental Impact Assessment Regulations, No. 30 of 2012, gazetted under the Environmental Management Act, No.7 of 2007 (referred to herein as the EIA Regulations).

1.2 BACKGROUND OF THE PROPOSED PROJECT

Mertens Mining and Trading (Pty) Ltd propose to undertake mineral exploration activities on EPL 7699 as well as exploration and small-scale mining activities on mining claims 68855 - 68861 and 67633 in the Khomas and Hardap Regions. EPL 7699 is located 25km east-southeast of Rehoboth. The largest part of EPL 7699 is located within the Khomas Region and a small portion overlaps with the Hardap Region (refer to Figure 1 for the location of EPL 7699).

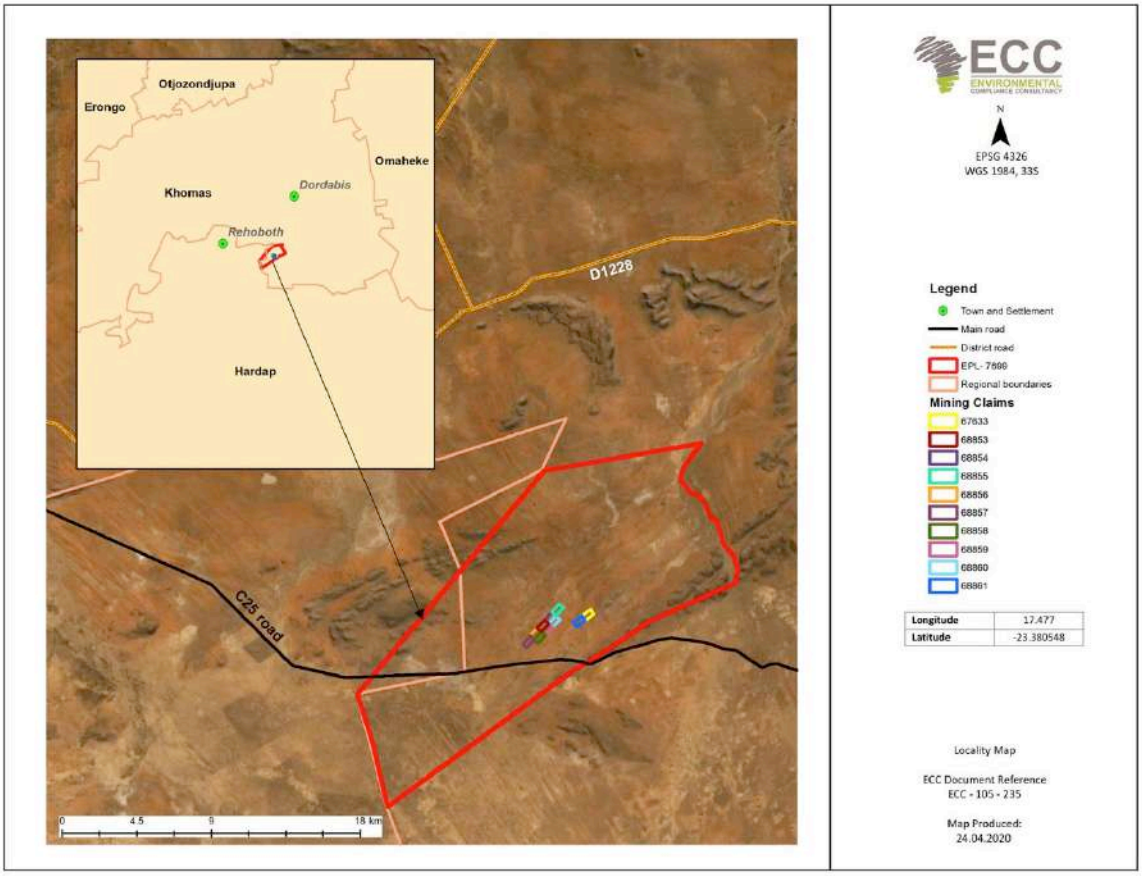

FIGURE 1 - LOCALITY MAP OF EPL 7699

1.3 Scope of Work

Environmental Compliance Consultancy (ECC) has been engaged by the proponent, to undertake the ESIA and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its regulations.

The purpose of this report is to present the findings of the scoping study for the proposed project. This scoping report has been outlined in terms of the requirements of the Environmental Management Act, No. 7 of 2007 and its regulations, promulgated in 2012 (referred to herein as the EIA Regulations).

An environmental clearance application was submitted to the relevant competent authorities; the Ministry of Mines and Energy (MME) and Ministry of Environment, Forestry and Tourism (MEFT).

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

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

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

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

1.4 The Proponent of the Proposed Project

Mertens Mining and Trading (Pty) Ltd is a Namibian registered company (registration number 2007/0308), and holds the mineral exploration licence of EPL 7699. The project started in 2008 in phases resulting in the initial proclamation of EPL 4034, which covered an area of 34,824.80ha. Mining claims 68855 - 68861 and 67633 were proclaimed too – all of them located on the farm Mertens (No.63), which was part of EPL 4034. Bulk sampling and trenching exploration commenced and an onsite crushing and milling plant and a pilot 10t/h flotation plant were established to conduct trial processing and metallurgical testing. Power is provided by a diesel generator onsite and some heavy mining equipment is used for the ongoing exploration activities. Since 2008 the project was exposed to several potential "take-overs" and mergers, which is an ongoing process.

The existing mining claims will be converted and consolidated as part of EPL 7699, including the current operational activities at the pilot plant and the associated facilities and infrastructure. EPL 7699 includes most of the former EPL 4034, the mining claims 68855 - 68861 and 67633 on farm Mertens, and overlaps and borders several other farms.

The EPL ownership and details of the proponent are set out in Table 1 below.

TABLE 1 – PROPONENT DETAILS

CONTACT	POSTAL ADDRESS	EMAIL ADDRESS	TELEPHONE	WEBSITE
Mertens Mining and Trading (Pty) Ltd The Director	P O BOX 1182 Tsumeb Namibia	baasco@afol.com.na	+264 81 1228502	N/A

1.5 Environmental Consultancy

ECC, a Namibian consultancy (registration number Close Corporation 2013/11401), has prepared this scoping report, impact assessment and EMP on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa, in both the public and private sectors. ECC is independent of the proponent and has no vested or financial interest in the proposed project, except for fair remuneration for professional services rendered.

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

Environmental Compliance Consultancy

PO BOX 91193 Klein Windhoek, Namibia

Tel: +264 81 669 7608

Email: info@eccenvironmental.com

1.6 Environmental Requirements

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

TABLE 2 - LISTED ACTIVITIES TRIGGERED BY THE PROJECT

LISTED ACTIVITY	EIA SCREENING FINDING
ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES 1. The construction of facilities for the generation, the transmission and supply of electricity	○ Power will be generated onsite by a diesel generator
MINING AND QUARRYING ACTIVITIES 3.1. The construction of facilities for any process or activities which requires a licence, right or other forms of authorisation, and the renewal of a licence, right or other forms of authorisation, in terms of the Minerals (Prospecting and Mining Act), No. 33 of 1992. 3.2. Other forms of mining or extraction of any natural resources whether regulated by law or not 3.3. Resource extraction, manipulation, conservation, and related activities	○ The proposed project operates under a licence that permits for the construction of temporal exploration campsites, drill sites and access roads. ○ Furthermore, this listed activity, infers the provisions of the Minerals Act (Prospecting and Mining) Act 33 of 1992, under different licences as basis upon which certain activities qualify for an EIA. Part X of the Minerals Act (1992) defines prospecting/exploration activities under the lawful ownership of an exploration licence (EPL). An exploration licence excludes any mining activities, but includes activities strictly relating to exploration work. Hence the current project strictly focuses on exploration and not mining. ○ Soil will be sampled and explored for within the EPL 7699. ○ The proposed project will explore for base and rare metals, industrial minerals, precious metals, precious stones, and semi-precious stones.
WATER RESOURCE DEVELOPMENT 8.1. The abstraction of ground or surface water for industrial or commercial purposes	○ Due to the drilling of exploration boreholes, the abstraction of groundwater may be possible, although it is intended that water will be obtained from existing boreholes in the proposed project area. Any additional borehole drilled for the intention of abstracting water for use on site should be permitted by the authorities in the form of an abstraction permit

1.7 TERMINOLOGIES APPLIED IN THIS REPORT

This section provides definitions of key terms to enable the reader to form a technical understanding of the type of work associated with exploration programmes.

- **REMOTE SENSING** techniques in mineral exploration enable explorers to evaluate large areas of the earth remotely without having to undertake ground-based exploration operations. Remote sensing may be used to map the geology and structure that potentially localise the ore deposits, or may be used to identify rocks, which have been hydrothermally altered. Remote sensing involves the use of aircraft and satellite-based equipment to obtain the data to record spectral data from the surface of the earth. Remote sensing includes a number of tools and techniques including geographical information systems, radar and sonar. Typically, satellites or a high-flying aircraft are used in the data collection process. It is a useful tool when searching for minerals and can give an indication of where deposits could be located. Remote sensing aids in narrowing down the field survey area and helps to identify target areas that may be considered for more.
- **AIRBORNE GEOPHYSICAL SURVEYS**, using magnetic, radiometric and electromagnetic techniques, are a key aspect in mineral exploration, enabling explorers to probe under cover, mapping geology and structure, including potentially direct identification of mineral deposits. Modern surveys are flown at a low level in a grid pattern, adhering fully to the safety margins prescribed by the Civil Aviation Authority (CAA) of Namibia.
- **GEOLOGICAL MAPPING** of outcrops is used to describe the primary lithology and morphology of rock bodies as well as age relationships between rock units. Mapping is a crucial part of refining subsurface targets, as it provides structural information and can be used to predict the subsurface geology. This will be conducted concurrently with the geochemical sampling.
- **GEOCHEMICAL SAMPLING** (soil and rock sampling) is a non-invasive technique to determine the existence and extent of mineralization and a potential resource. Geochemical data are used to focus on areas of higher mineral potential as the project advances and help to define drill targets. They assist the company to drill more selectively and thereby increase the chances of intersecting mineralised zones during exploration and reduce the overall footprint of exploration and environmental impact in the area. Geochemical surveys will be the first ground exploration method to be undertaken by the proponent in the licence area.
    - **SAMPLING** - Selecting a fractional but representative part of a mineral deposit for analysis.
- **GROUND GEOPHYSICAL SURVEYS** including Magnetic Induced Polarization (IP) and Electromagnetic (EM) techniques, may be undertaken, as appropriate, to collect data that

give an indication of essential rock properties, particularly at depth. They are also used to map the geological structures. IP surveys involve sending electrical currents into the ground, measured via electrodes along linear cut-lines up to 3 km long to provide access to electrical cables. Small holes in the ground (0.2m x 0.2m x 0.3m) will be required for IP electrodes every 25 or 50m along a survey line. Copper sulphate solution will be used to improve the conduction of electrodes during the IP survey. The majority of EM techniques are completely non-invasive and operate by sending electromagnetically induced currents into the ground. EM surveys are conducted along the same linear traverse lines. A variation is the Audio-Magneto Telluric (AMT) technique, in which surveys utilize the same lines and small holes in the ground, but without the application of high voltage electrical currents.

- **RAB DRILLING** (Rotary Air Blast drilling) is an open-hole technique that injects compressed air down the drill pipe and recovers the cut-up fragments created on the outside of the drill stem.
- **DIAMOND DRILLING** entails the use of a diamond drill in order to obtain core samples of two cm or more in diameter. Bio-degradable drill additives will be used during diamond core drilling. Soil, rock and drill core samples will be stored at the site office. Exploration activities are usually undertaken in phases, with periods of no field activity between them, whilst awaiting analytical results, and the integration and interpretation of data to decide on the next phase of exploration.

2 METHODOLOGY AND APPROACH

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

The EIA process in Namibia is governed and controlled by the Environmental Management Act, No. 7 of 2007 and its regulations, No. 30 of 2012, which is administered by the Office of the Environmental Commissioner through the DEA of the MEFT.

The aim of this preliminary assessment is to identify, predict, evaluate and mitigate the potential impacts of the proposed project on the natural and human receiving environment, scope the available data and identify the gaps that need to be filled. The assessment process helps to determine the spatial and temporal scope and identify the assessment methodology which is most applicable for use. In addition the assessment process and subsequent reports are to apply the principles of environmental management to the proposed activities; reduce the negative and increase the positive impacts arising from the project; provide an opportunity for the public to consider the environmental impacts of the proposed project through meaningful consultation; and to provide a vehicle to present the findings of the assessment process to competent authorities for decision making.

2.2 THE ASSESSMENT PROCESS AND METHODOLOGY

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

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

Furthermore, the Namibian Draft Procedures and Guidance for ESIA and EMP (Republic of Namibia, 2008) as well as the international and national best practice; and over 25 years of combined ESIA experience, were also drawn upon in the assessment process.

This impact assessment is a formal process in which the potential effects of the project on the biophysical, social and economic environments are identified, assessed and reported, so that the significance of potential impacts can be taken into account when considering whether to grant approval, consent or support for the proposed project.

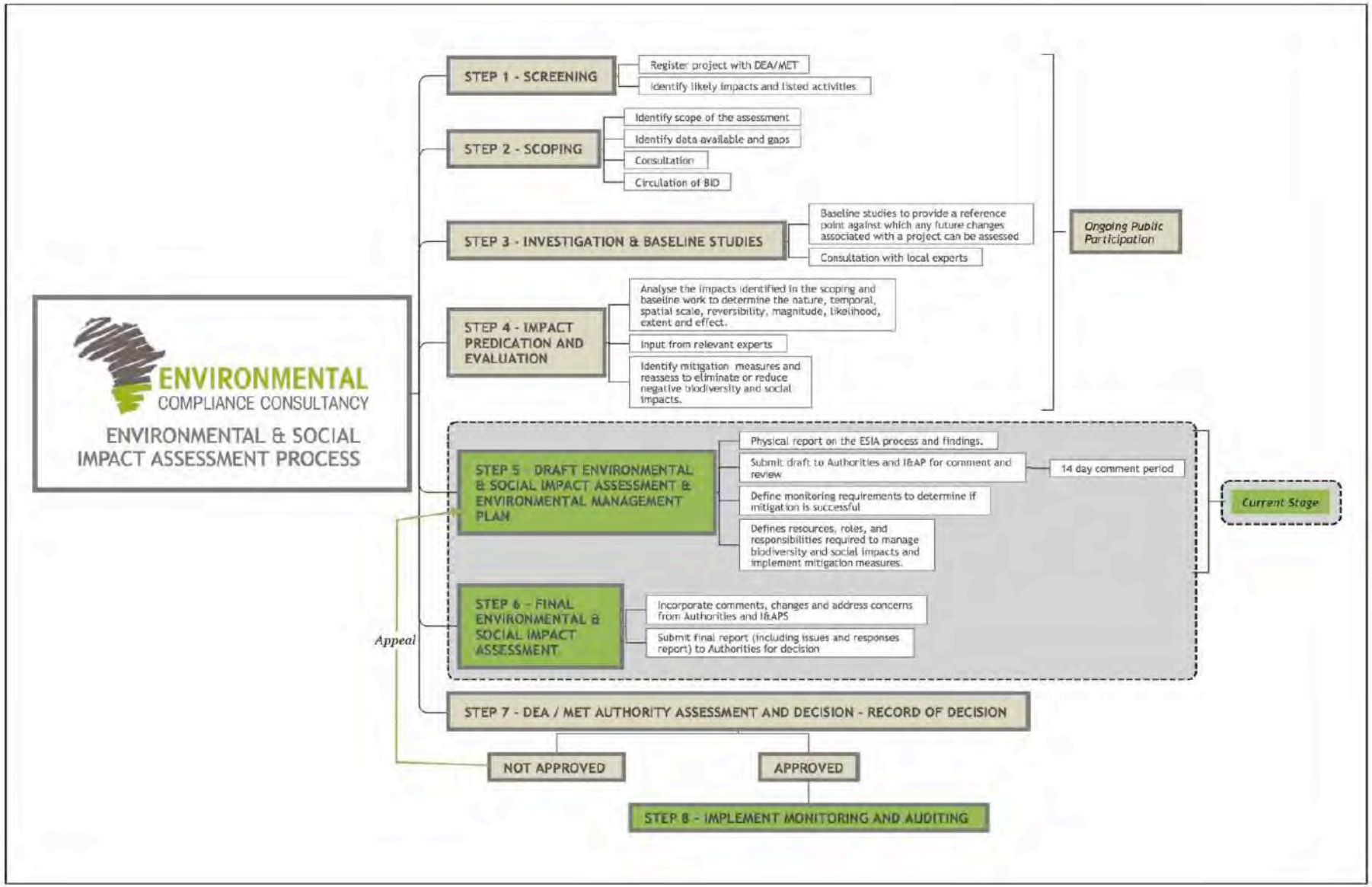

FIGURE 2 – ECC SCOPING PROCESS

2.3 SCREENING OF THE PROJECT

STATUS: COMPLETE

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

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

2.4 SCOPING OF THE ENVIRONMENTAL ASSESSMENT

STATUS: COMPLETE

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

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

Subsequently, scoping of the ESIA was undertaken by the ESIA team. The scope of the assessment was determined through undertaking a preliminary assessment of the proposed project against the receiving environment obtained through a high-level desktop review. Feedback from consultation with the client and stakeholders also informed this process.

The following environmental and social topics and subtopics were scoped into the assessment, as there was potential for significant impacts to occur:

SOCIO-ECONOMIC ENVIRONMENT

- Limited goods and services procurement within the local economy.

BIOPHYSICAL ENVIRONMENT

- Dust emissions
- Soil and geology
- Terrestrial ecology

- Terrestrial biodiversity (including fauna and flora)
- Groundwater (potential cumulative impact). Water management suggestions are contained in the EMP (Appendix A).

The following topic were scoped out of the ESIA, as no likely significant impacts are predicted as the proposed project poses little to no change from the current baseline, therefore is not discussed further in this report.

- Heritage: An archaeological assessment was carried out on the proposed project site specific area by an experienced and qualified Archaeologist - Dr. John Kinahan. The archaeological study, issued on the 22 February 2021, reviewed that no significance of heritage value was found (refer to Appendix E for the detailed assessment report). In the unlikely event of a possible archaeological find a Standard Operating Procedure (SOP) called a "chance-find" procedure outlined in the EMP should be utilised.

2.5 BASELINE STUDIES

Baseline studies are undertaken as part of the scoping stage, which involves collecting all pertinent information from the current status of the receiving environment. This provides a baseline against which changes that occur as a result of the proposed project can be measured.

For the proposed project, baseline information was obtained through a desktop study, focussing on environmental receptors that could be affected by the proposed project, verified through site-specific information. The baseline information is covered in Section 5.

A robust baseline is required in order to provide a reference point against which any future changes associated with a project can be assessed, and it allows for suitable mitigation and monitoring actions to be identified.

The existing environment and social baseline for the proposed project were collected through various methods:

- Desktop studies;
- Consultation with stakeholders; and
- Engagement with Interested and Affected Parties (I&APs). See Appendix C.

2.6 IMPACT PREDICATION AND EVALUATION

Impact prediction and evaluation involves predicting the possible changes to the environment as a result of the development/project. The recognized methodology was applied to determine the magnitude of impact and whether or not the impact was considered significant and thus warrant further investigation. The impact prediction and

evaluation methodology used is presented in Section 6 of this report. The findings of the assessment are presented in Section 7.

2.7 ESIA CONSULTATION

STATUS: COMPLETE

Public participation and consultation are requirements stipulated in Section 21 of the Environmental Management Act, No. 7 of 2007 and associated regulations for a project that needs an environmental clearance certificate. Consultation is a compulsory and critical component in the ESIA process in achieving transparent decision-making and can provide many benefits.

The objectives of the stakeholder engagement process are to:

- Provide information on the project to I&APs: introduce the overall concept and plan;
- Clarify responsibility and regulating authorities;
- Listen to and understand community issues, concerns and questions;
- Explain the process of the ESIA and timeframes involved; and
- Establish a platform for ongoing consultation.

2.7.1 INTERESTED AND AFFECTED PARTIES

EPL 7699 overlaps with at least 16 farms (Figure 3). A regional border runs through the EPL, with the largest part of the EPL located within the Khomas Region (Windhoek District) and the smallest part falling in the Hardap Region (Rehoboth District). The entire EPL is located between two endorheic drainage systems – on the western side the Oanob and on the eastern side the Skaap River.

Extensive livestock farming is the predominant land use in this part of Namibia. (Figure 3 below) indicates the farm units which may be affected by the location of EPL 7699. The listed farms are:

- Wiese (three parts, all No. 62)
- Mertens (No. 63)
- Strife (No. 64)
- Gravenstein (No 65)
- Kous (No. 66)
- Versailles (No. 67)
- Ganeib-suid (No. 215)
- Rooiwal-oos (No. 382)
- Heide-oos (No. 407)
- Atsigas-noord (No. 757)
- Kartatsaus (No. 757)

- Atsigas (No. 757)
- Teenspoed (No. 793) and
  Hexenkessel (No. 887)

All owners of the farms that overlap or border EPL 7699 were identified as I&APs, as well as the relevant regional authoritative bodies. Other I&APs were identified through invitations such as the newspaper advertisements and site notices.

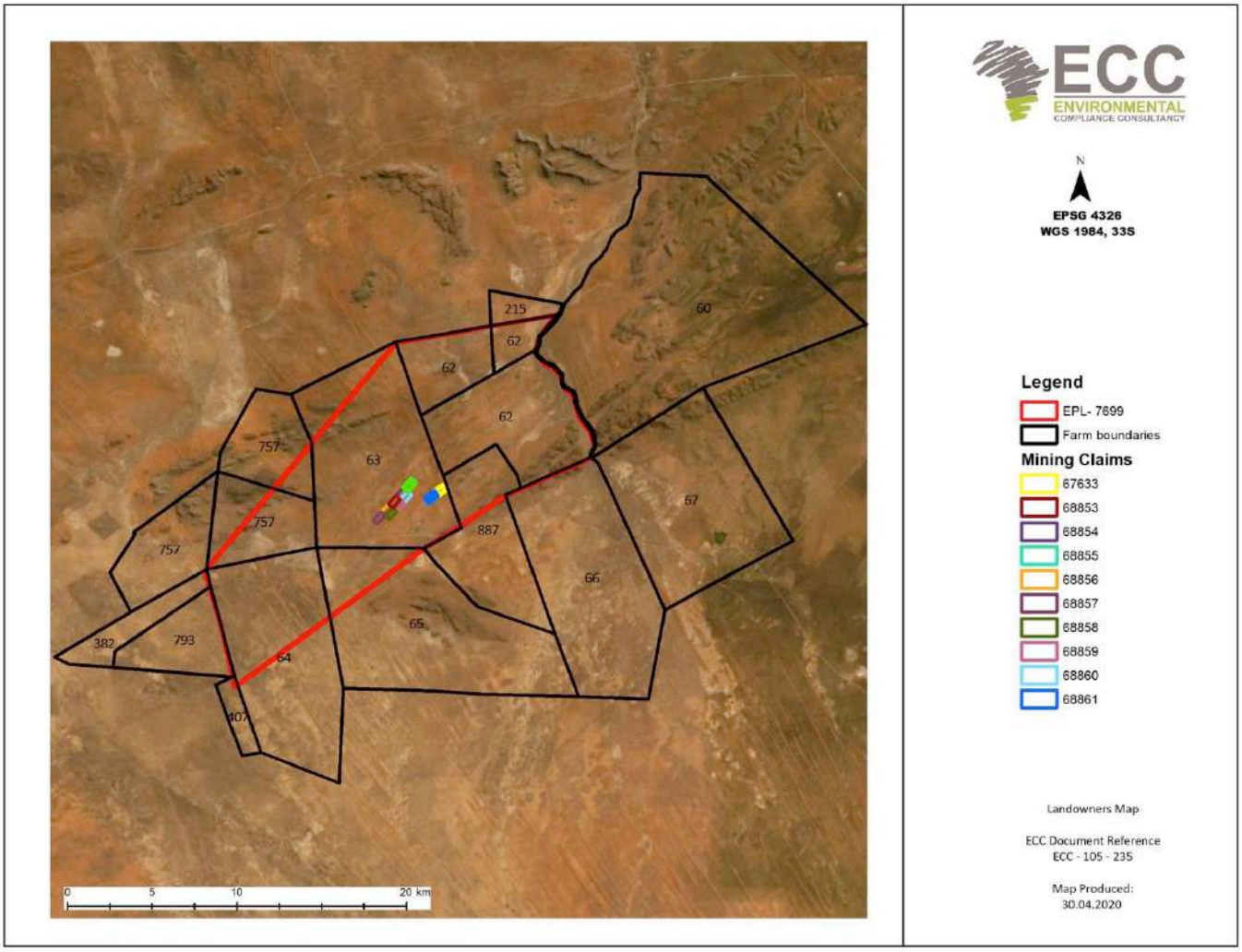

FIGURE 3 – FARM BOUNDARIES RELEVANT TO EPL 7699

Access to the farms are possible from the C25 (from the main road between Rehoboth to Uhlenhorst) and the D1228. The C25 also provides the main access to the EPL and mining claims. Several tracks are present on the farms; all of them are private roads (Figure 4).

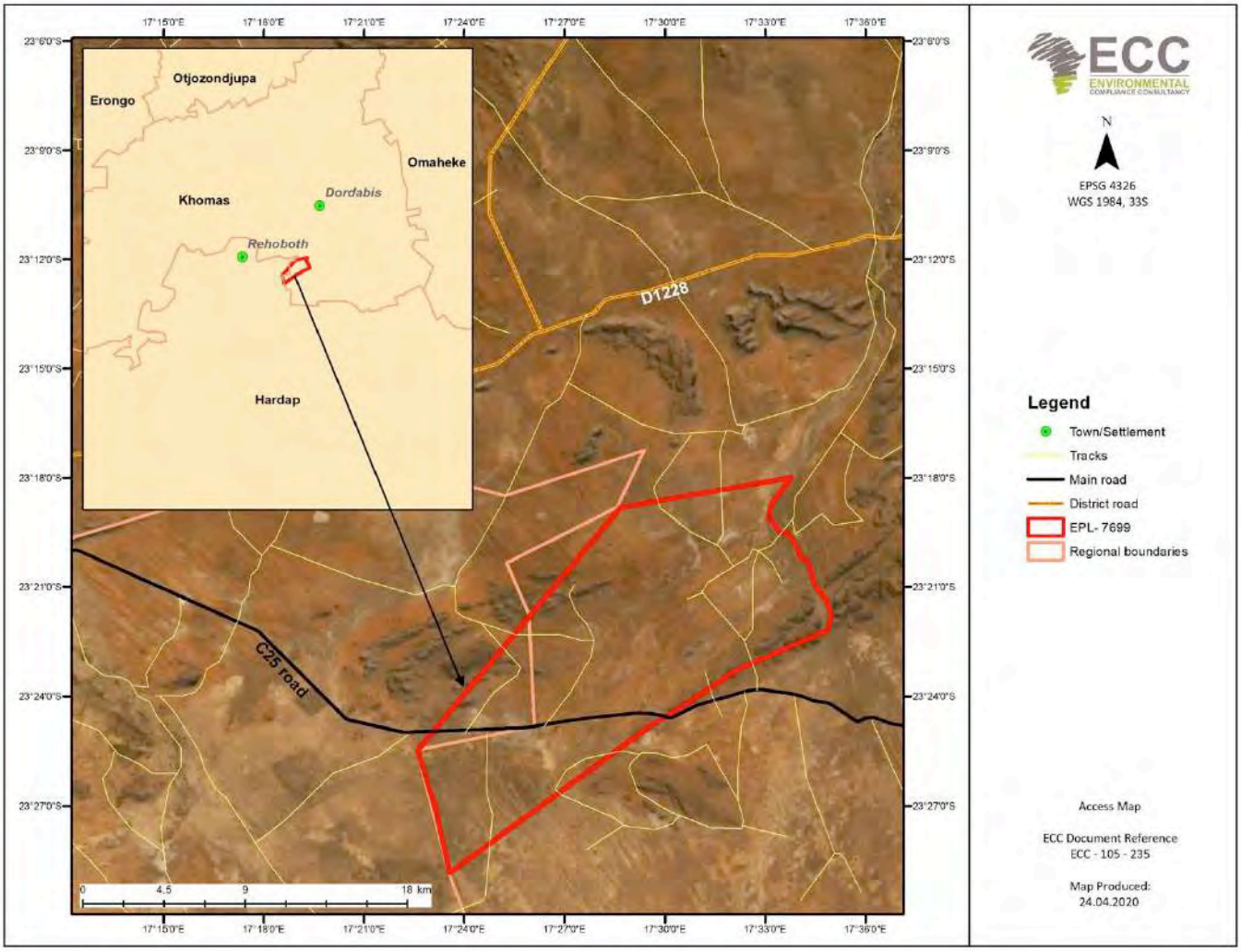

FIGURE 4 – ROADS AND ACCESS TO EPL 7699

2.7.2 SITE NOTICES

A site notice ensures neighbouring properties and stakeholders are made aware of a proposed project. A site notice was set up along the main road to the proposed project site. Evidence of the site notice placement is illustrated in Appendix C.2.

2.7.3 NEWSPAPER ADVERTISEMENTS

Notices regarding the proposed project and associated activities were circulated in three newspapers namely the 'Republikein', Allgemeine Zeitung' and the Namibian 'Sun" on the 09th and 16th of September 2020. The purpose of this was to commence the consultation process and enable I&APs to register an interest with the project. The adverts can be found in Appendix C.

2.7.4 NON-TECHNICAL SUMMARY

The Non-Technical Summary (NTS) presents a high-level description of the proposed project; sets out the ESIA process and when and how consultation is undertaken; and provides contact details for further project-specific inquiries to all registered I&APs. The NTS was distributed to all registered I&APs and the NTS can be found in Appendix B.

2.7.5 PUBLIC MEETING

A public meeting was held on the 29 September 2020 (during the public consultation period) as it was deemed necessary due to the concerns and comments from the I&AP identified and registered. The purpose of the meeting was to introduce the project, afford I&APs an opportunity to interact and openly express their concerns and decide on the best means of communication with the affected farm owners. See appendix C.3 for the record of meeting held.

2.7.6 SUMMARY OF ISSUED RAISED

The initial public participation phase involved the notifications of the project through media such as the newspaper adverts, direct mail sent to identified I&APs and the display of site notices delivered very few interactive communications from the public. The full log of comments received from this phase are contained in appendix C.3.

The main concerns received from the I&APs during public consultation are summarized below.

- Information on the proposed projects, scheduled program for exploration and operations on the EPL and mining claims, (discussed in section 4.5.1);
- The nature of the proposed exploration site area and aftercare procedures to be carried out (corrosion concerns on site), (discussed in section 4.11 with mitigation included in the EMP on small scale mining impacts on soil and surface-water);
- Water supply for exploration activities and groundwater abstraction constraints and potential impacts to groundwater, (discussed in section 4.8 and 5.5); and
- Clarity on the potential impacts of exploration on the biodiversity of the area, (discussed in section 5.7).

2.8 DRAFT ESIA AND EMP

STATUS: COMPLETE AND ON GOING

This report and EMP for the project's environmental clearance includes an assessment of the biophysical and social environment, which satisfies the requirements of Step 5 (Figure 2).

The ESIA report documents the findings of the assessment process, provides stakeholders with the opportunity to comment and continued consultation and forms part of the environmental clearance application. The EMP provides measures to manage the environmental and social impacts of the proposed project and outlines specific roles and responsibilities to fulfil the plan.

This ESIA report focuses on the significant impacts that may arise from the proposed project as described in Step 4 (Figure 2). These impacts are discussed in Chapter 6.

This ESIA report will be open to stakeholders and I&APs for consultation for a period of 7 days (10/06/2021 – 18/06/2021), meeting the mandatory requirement of 7 days as set out in the Environmental Management Act, No. & of 2007 and its regulations, including the Environmental Impact Assessment Regulations, No. 30 of 2012. The purpose of this stage is to ensure all stakeholders and I&APs have the opportunity to provide final comments on the assessment process and findings and register their concerns.

2.9 Final ESIA and EMP

STATUS: COMPLETE AND ONGOING

The final ESIA report and associated appendices will be available to all stakeholders on the ECC website www.eccenvironmental.com. All I&APs are informed via email. The ESIA report and appendices will be formally submitted to the Office of the Environmental Commissioner, DEA as part of the application to for an environmental clearance certificate.

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

2.10 Authority Assessment and Decision Making

STATUS: FUTURE STAGE

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

2.11 Monitoring and Auditing

STATUS: FUTURE STAGE

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

3 REGULATORY FRAMEWORK

This chapter outlines the regulatory framework applicable to the proposed project. Table 3 provides a list of applicable legislation and relevance to the project.

3.1 NATIONAL LEGISLATION

TABLE 3 – LEGAL COMPLIANCE

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Constitution of the Republic of Namibia of 1990, as amended	The constitution clearly defines the country's overarching position in relation to the well-being of Namibians, sustainable development and environmental management. The constitution refers that the state shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: *"Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present, and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory."*	The proponent is committed to engage the local community for the proposed project by providing local jobs as well as, exploring ways of finding rich recourses to that could contribute to the mining sector in Namibia.
Minerals (Prospecting and Mining) Act, No. 33 of 1992	Provides for the reconnaissance, prospecting and mining for, and disposal of, and the exercise of control, minerals in Namibia. Section 50 (i) requires *"an environmental impact assessment indicating the extent of any pollution of the environment before any prospecting operations or mining operations are being carried out and an estimate of any pollution, if any, likely to be caused by such prospecting operations or mining operations"* Section 50 sets out that *"in addition to any term and condition contained in a mineral agreement and any term and*	The proposed activity is prospecting for minerals; hence it requires an EIA to be carried out as it triggers listed activities in the Environmental Management Act and its regulations. This report presents the findings of the EIA. Works shall not commence until all conditions in the Act are met, which includes an agreement with the landowners and conditions of compensation have been agreed. The project shall be compliant with section 76, with regards to records, maps, plans and financial statements, information, reports, and returns

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	condition contained in any mineral licence, it shall be a term and condition of any mineral licence that the holder of such mineral licence shall: *Exercise any right granted to him or her in terms of the provisions of this Act reasonably and in such manner that the rights and interests of the owner of any land to which such licence relates are not adversely affected, except to the extent to which such owner is compensated;"* Section 52 sets out that *"the holder of a mineral licence shall not exercise any rights conferred upon such holder by this Act or under any terms and conditions of such mineral licence* *(a) In, on or under any private land until such time as such holder-* *(i) Has entered into an agreement in writing with the owner of such land containing terms and conditions relating to the payment of compensation, or the owner of such land has in writing waked any right to such compensation and has submitted a copy of such agreement or waiver to the Commissioner.*	submitted. As the proponent will need to access privately owned land the proponent will ensure sections 50 and 52 are complied with.
Environmental Management Act, No. 7 of 2007 and its regulations, including the Environmental Impact Assessment Regulations, No. 30 of 2012	The Act aims to promote sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment. It sets the principles of environmental management as well as the functions and powers of the minister. The act requires certain activities to obtain an environmental clearance certificate prior to project development. The act states an EIA may be undertaken and submitted as part of the environmental clearance certificate application. The MEFT is responsible for the protection and management of	This environmental scoping report (and EMP) documents the findings of the environmental assessment undertaken for the proposed project, which will form part of the environmental clearance application. The assessment and report have been undertaken in line with the requirements under the Act and associated regulations.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	Namibia's natural environment. The DEA under the MEFT is responsible for the administration of the EIA process.	
Water Resources Management Act, No. 11 of 2013	This act provides a framework for managing water resources based on the principles of integrated water resource management, i.e. the full array of management, development, protection, conservation, and use of water resources. The Department of Water Affairs within the Ministry of Agriculture, Water and Land Reform (MAWLR) is responsible for the administration of the Act. As such the department is responsible for ensuring that Namibia achieves sustainable water resources management by controlling the abstraction of water (also from the ocean and groundwater), disposal of domestic and industrial effluent, and potable and effluent quality monitoring. This Act has not been approved by parliament; however it is best practice to comply with this Act.	The Act sets out obligations in order to avoid water pollution and stipulates licence requirements; however, as the Act is not enforced (but only applied as best practice); no regulations support the Act to stipulate how a licence should be obtained.
Water Act, No. 54 of 1956	The Water Act 54 of 1956 remains in force and this act provides for *"the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respect and for the control of certain activities on or in water in certain areas".* The Department of Water Affairs within the MAWLR is responsible for the administration of the act. The minister may issue a permit in terms of the regulations 5 and 9 of the government notice R1278 of 23 July 1971 as promulgated under section 30 (2) of the Water Act no. 54 of 1956, as	The Act stipulates obligations to prevent pollution of water. Should wastewater be discharged, a permit is required. The EMP sets out measures to avoid polluting the water environment. Measures to minimise potential groundwater and surface water pollution are contained in the EMP. Abstraction of water from boreholes requires an abstraction permit. Abstraction rates need to be measured and reported to the authorities in accordance with the requirements of this legislation. In addition, annual reporting on the environmental impacts of water abstraction is recommendable.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	amended.	Should the project require drilling and abstraction of water from underground sources, an application should be submitted to the authorities.
Electricity Act, No. 4 of 2007	The Act stipulates that any potential generator of electricity must apply for such a licence from the Electricity Control Board. The application is evaluated and a recommendation is provided to the minister of Mines and Energy, who ultimately makes the decision whether a licence is granted or refused.	The area where the generation activities will take place should be accurately depicted on a map in the application, as well as proof of right to the land, particulars of the applicant and particulars of the generation station. In a case that a generator and power supply is not off-grid, an agreement with NamPower or the regional distributor should be in place. As a listed activity the application requires an EIA.
Forest Act, No. 12 of 2001 as amended by the Forest Amendment Act, No. 13 of 2005 and its regulations of 2015	This Act presents laws relating to the management and use of forests and forest produce. It also presents provisions for the protection of the environment and the control and management of forest fires.	Ecological impacts may occur as a result of operational activities. Permission is required if predominantly woody vegetation needs to be cleared on more than 15 hectares. Tree species and any vegetation within 100m from a watercourse may not be removed without a permit. Protected species will be identified prior to construction works and measures to protect them, as set out in the EMP. Permits for protected species under the act must be obtained prior to any disturbance.
Soil Conservation Act, No. 76 of 1969	Makes provision for the prevention and control of soil erosion and the protection, improvement and the conservation, improvement and manner of use of the soil and vegetation.	Taken into consideration during the design of the works to be undertaken within EPL 7699. Measures in the EMP set out methods to avoid soil erosion.
National Heritage Act, No. 27 of 2004.	The Act makes provision for the protection and conservation of places and objects with heritage significance.	There is potential for heritage objects to be found during the exploration activities and operations, therefore the stipulations in the act have been taken

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	Section 55 compels exploration companies to report any archaeological findings to the National Heritage Council after which a permit needs to be issued before the find can be disturbed.	into consideration and are incorporated into the EMP. The project shall be compliant with section 55.

3.2 NATIONAL REGULATORY REGIME

TABLE 4 - NATIONAL POLICIES

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Vision 2030	Vision 2030 sets out the nation's development programmes and strategies to achieve its national objectives. It sets out eight themes to realise the country's long-term vision. Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people to a level in line with the developed world.	The planned project shall meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities.
The Fifth National Development Plan (NDP5)	NDP5 is the fifth in the series of seven five-year national development plans that outline the objectives and aspiration of Namibia's long-term vision as expressed in Vision 2030. NDP5 is structured on the pillars of economic progression, social transformation, environmental sustainability and good governance. Under the social transformation pillar is the goal of improved education.	The planned project supports meeting the objectives of NDP5 by creating opportunities for employment to the nearby community and the Namibian nation.
Minerals Policy	The Minerals Policy was adopted in 2002 and sets guiding principles and direction for the development of the Namibian mining sector while communicating the values of the Namibian people. It sets out to achieve several objectives in line with the sustainable development of Namibia's natural resources. The policy strives to create an enabling environment for local and foreign investments in the mining sector and seeks to maximise the benefits for the Namibian people from the mining sector while encouraging local participation, amongst others.	The objectives of the Minerals Policy are in line with the objectives of the NDP5, i.e. reduction of poverty, employment creation, and economic empowerment in Namibia. The proposed project conforms to the policy, which has been considered through the ESIA process and the production of this report.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	The objectives of the Minerals Policy are in line with the objectives of the Fifth National Development Plan that include reduction of poverty, employment creation and economic empowerment in Namibia.	
Labour Act, No. 11 of 2007	The Labour Act, No. 11 of 2007 (Regulations relating to the Occupational Health & Safety provisions of Employees at Work promulgated in terms of Section 101 of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997)	The proposed project will comply with stringent health and safety policies, including the compulsory use of specific PPE in designated areas to ensure adequate protection against health and safety risks. Proper storage and labelling of hazardous substances are required. The project will ensure employees in charge of and working with hazardous substances, need to be aware of the specific hazardous substances in order not to compromise worker and environmental safety.

3.3 Licences and Permits

3.3.1 Exclusive Prospective Licence

The EPL 7699 was granted on the 09th of January 2020 and expires on the 08th of January 2023. In terms of the Minerals (Prospecting and Mining) Act, No. 33 of 1992, an EPL may be renewed, however, it may only be extended twice for two-year periods if demonstrable progress is shown. Renewals beyond seven years require special approvals from the Minister (MME, 2018).

Such renewals are subject to a reduction in the size of the EPL. When a company applies for renewal of an EPL, the application must be lodged 90 days prior to the expiry date of the EPL or, with good reason, no later than the expiry date (MET & MME, 2018).

If renewal is applied for, the MME must review the renewal application and make any comments and/or recommendations for consideration by the Minerals (Prospecting and Mining Rights) Committee (MPMRC). Amendments and revisions may be required for the ESIA and EMP. Due consideration must be given when renewing the licence to ascertain whether there is justification to renew the licence. Once an EPL expires and a new EPL is

issued, even if it is to the previous holder, the full screening process must be followed with a full ESIA process, before operations may commence (MET & MME, 2018).

3.3.2 Mining Rights

The existing mining claims 68855 – 68861 and 67633 were allocated to Mertens Mining and Trading (Pty) Ltd, the company who holds the mineral exploration licence of EPL 7699. The existing mining claims will be converted and consolidated as part of EPL 7699, including the current operational activities at the pilot plant and the associated facilities and infrastructure.

3.3.3 Water abstraction permit

Abstraction of water from a borehole is regulated by means of a permit from the Department of Water Affairs under the MAWLR. Abstraction rates need to be measured and reported to the authorities in accordance with the requirements of the legislation. In addition, monitoring and annual reporting on the environmental impacts of water abstraction is recommendable.

A water abstract permit with an indefinite validity period for borehole WW 200791, for the purpose mining and prospecting, was issued in May 2009. The overall classification of the water is group B, i.e. good quality water (based on analyses conducted in June 2009 and in January 2020).

Should the project require further drilling and abstraction of water from underground sources, an application should be submitted to the authorities.

3.3.4 Electricity generation licence

Any potential generator of electricity must apply for such a licence from the Electricity Control Board, which evaluates the application and make a recommendation to the Minister of Mines and Energy, who ultimately makes the decision whether a licence is granted or refused.

The permits and licences that may be relevant to the proposed projects are outlined in Table 5.

TABLE 5 – PERMITS AND LICENCES

PERMIT AND LICENCES	RELEVANT AUTHORITY	VALIDITY/DURATION
WATER ABSTRACTION PERMITS	MAWLR	Permit dependent
EXCLUSIVE PROSPECTING LICENCE	Ministry of Mines and Energy - Windhoek	3 years
NOTICE OF INTENTION TO DRILL	Ministry of Mines and Energy - Windhoek	To be submitted prior to drilling

4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROPOSED PROJECT

Namibia is relatively rich in a variety of minerals, and mining has always been a critical sector of the Namibian economy. The sector contributes significantly to the country's Gross Domestic Product (GDP), through taxation, royalties, fees and equities as well as export revenues. For this reason, exploration activities are encouraged in Namibia and the vision of the Minerals Policy being to "further attract investment and enable the private sector to take the lead in exploration, mining, mineral beneficiation and marketing" supports the development.

The proposed project is in line with this vision and has the potential to create short term and limited employment and to contribute to the national income. In the event that exploration activities are successful, and a resource with commercially viable mineral concentrations can be defined, the exploration operations can potentially transcend into mining operations which can result in multiple socio-economic benefits to the region and the country at large.

4.2 EXPLORATION

Exploration activities are the process of sampling/collecting fragments of the earth's layers for testing of each sample's mineral composition, grade, and spatial dispersion to acquire an informed perspective of the target area's ore potential. Exploration shall only be carried out within the boundaries of EPL 7699. No exploration activities shall be carried out without an approved environmental clearance certificate.

4.3 EXPLORATION METHODOLOGY

Exploration work will be entirely conducted by contracted geological, geophysical consultants and in phase three and four onwards drilling consultants and companies. The below schedule of activities is presented for the project in Table 6.

TABLE 6 - LIST OF ACTIVITIES PLANNED PER PHASE

PHASE	DATE	ACTIVITY DESCRIPTION
Phase 1: 2020	Field inspection commencement date unknown, desktop work commenced 2019:	Exploration activities involve desktop interpretation of available airborne magnetic, radiometric and electromagnetic data, mapping, analysis satellite imagery and archival data from the GSN. Additionally, preliminary field inspection of onsite geology and possibly initial stream sediment sampling may take place.
Phase 2: 2021	Actual	Airborne electromagnetic (AEM) survey, as above, and interpretation

	commencement date unknown:	of this data, coupled with the commencement of soil sampling and geological mapping in specific target localities, to be determined by the above desktop interpretation and AEM results. Limited follow-up ground geophysical surveys may be needed to target drill sites.
Phase 3: 2022	Actual commencement date unknown	RAB and/or Aircore drilling in select areas only (locations unknown), depending on results from the first two phases.
Phase 4: 2021-2023	Actual commencement date unknown	Desktop reviews of all data and subsequent planning activities, which may lead to diamond core drilling, the timing of which will be dependent on progress of the previous phases. Trenching and bulk-sampling may be part of this phase but is not favoured in the light of emphasis on drilling.

4.4 ALTERNATIVES CONSIDERED

The proposed project has been subject to a process of design evolution, informed by both consultation and an iterative environmental assessment. In terms of the Environmental Management Act, No. 7 of 2007 and its regulations, alternatives considered should be analysed and presented in the scoping assessment. This requirement ensures that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified.

Exploration activities range from extremely low impact exploration such as remote sensing from satellites to more invasive methods such as extensive close spaced drilling, bulk sampling and trenching over a two-year period. Three-hole sections are planned every 500m of a strike of 3000m, with infill drilling to follow. As the drilling program can establish a viable resource, metallurgical testing at the pilot plant onsite is taking place at the same time to optimize the processing method for a larger scale and feasible project. If commercially viable concentrations can be defined, the next phase can potentially transcend into mining operations.

4.4.1 NO-GO ALTERNATIVE

Should exploration activities within EPL 7699 and the small-scale mining activities on mining claims 68855 – 68861 and 67633 not take place, the anticipated environmental impacts from these activities would not occur. The social and economic benefits associated with the project would also not be realised.

There would not be an opportunity to define resources within the project area, a missed opportunity for geological mapping and data collection that, if found to be viable for mining, could benefit the Namibian economy.

4.5 SMALL-SCALE MINING ACTIVITIES

All the existing mining claims are located on the farm Mertens (No. 63). On the same farm some mining infrastructure exists, which is composed of a 10t/h pilot flotation plant, a crusher and a mill. Associated infrastructure includes a diesel generator and electrical gen-set, water pump and reservoirs and sheds while accessory works include a small quarry, waste and a small single-point depository retainer tailings dam.

Batches of ore are obtained from bulk sampling, crushed and milled before trial processing and metallurgical testing are done by means of froth flotation in the small plant. The flotation plant is fully containerized and located within a shed area. No chemicals are used during processing.

The mill and crusher only runs when a batch of feed is put through for metallurgical testing. At the tipping point dust suppression measures (e.g. water sprayers) are not in place, but the occurrence of dust is limited to a small area, and only on occasion.

Tailings are deposited in a small single-point depository retainer dam, below the plant. Although unlined, the facility is small, less than 1ha, and its surface is covered with grass. Tailings are led with an open-end gravitation pipeline to the depository where the tailings are retained with an earth wall. No additional preventative arrangements such a monitoring borehole, cut-off trench or toe-paddocks are in place, as the facility is small and is only being used on occasion. Depending on the running times of the plant, disposal is not continuous.

4.5.1 Schedule of exploration activities

Exploration techniques as discussed above are anticipated to be carried out over two years of the three-year period of the licence. The duration of the bulk sampling and drilling programs is variable, and usually depends on the data that is gained. It is possible that some areas may require follow-up exploration activities.

4.5.2 Schedule of small-scale mining activities

Trial processing and metallurgical testing are being done to optimize the processing method for a larger scale and feasible mining project while exploration drilling is done to define a viable resource at the same time. Testing at the pilot plant is done simultaneously with exploration activities and about 100t of concentrate from the plant will go for electro winning.

4.6 Equipment requirements

Equipment used for the drilling activities include two drill rigs and a support truck. Other equipment includes an excavator, one dump truck with a loader and five light pick-up trucks for supervision tasks as well as a compressor, welder and other mining support equipment. Fuel and consumables are brought to site to support the activities as and when needed.

In the early exploration phase (1st and 2nd year) contractor vehicles and equipment will comprise:

- 4x4 vehicles for personnel and field equipment;
- Field equipment including tents, mobile toilets and ablution facilities, spades, axes, soil sampling equipment such as sieves, sample bags, surveying apparatus;
- Portable or semi-portable geophysical equipment such as magnetometers, electromagnetic or Induced Polarization apparatus (all passive and non-invasive).

- In the ensuing phases (2nd and 3rd year) drilling is envisioned. The equipment requirements would therefore be an RAB/ Aircore Drill rig initially then followed by diamond core drilling. This is anticipated to be a specific provision within tender documentation.

4.7 POWER SUPPLY

The individual contractors will be responsible to supply their own energy needs throughout the duration of their stay within the field camps. The proponent prefers the use of solar panels and small-scale generators.

Bulk diesel is kept onsite, within a bunded area, within a fenced-in yard. The diesel tank has a capacity of 20 000 litres.

4.8 WATER SUPPLY

Water is required for various uses including human consumption, for exploration activities and for dust suppression. Water is sourced from an existing borehole, which is approved and monitored. Processing water will be circulated, water is as well circulated whilst drilling and at the pilot plant.

Water demand per day for the exploration project is broken down into two usage categories. These are:

- Water for domestic use: 5m³ per day; and
- Water for exploration activities (drilling): 20m³.

Water can be sourced directly from the existing and registered mine borehole. Alternatively, should the proponent require an additional borehole to be drilled in the area, the required water borehole permits, and abstraction permit shall be obtained from the MAWLR.

4.9 WORKERS AND ACCOMMODATION

A team of 28 workers will be employed. The workers will not reside onsite but at the Bahnhoff outpost (15km east of Rehoboth), in houses. The team will consist of eight workers for the drilling, five for trenching and fifteen people at the pilot plant, including supervisors. The workers will be sourced from the local communities of Rehoboth, Tsumeb and Windhoek.

4.10 WASTE MANAGEMENT

Waste will be produced onsite, which will include sewerage and solid waste such as packaging. Items included timber (pallets and crates), plastics and chemical containers. All

solid waste shall be collected, recycled as far as possible and non-recyclable items will be taken off-site and disposed of at the Rehoboth municipal waste site.

Mobile toilets will be used onsite, sewerage and wastewater generated shall be contained. The proponent will ensure waste transport certificates are in place when sewerage waste is removed from site. No waste shall be discharged or uncontained on site.

4.11 REHABILITATION

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

5 BASELINE / CURRENT BIOPHYSICAL ENVIRONMENT

5.1 INTRODUCTION

This section provides an overview of the existing biophysical environment through the analysis of the baseline data regarding the existing natural and socio-economic environment. Desktop studies on the national database are undertaken to get information of the current status of the receiving environment. This provides a baseline where changes that occur as a result of the proposed project can be measured.

EPL 7699 was granted to Mertens Mining and Trading (Pty) Ltd by the MME in an area 25km east-southeast of Rehoboth. A gravel road, the C25 from Rehoboth to Uhlenhorst, runs from west to east through the EPL while another district road, the D1228 runs 10 km north of the EPL – also from west to east (refer to Figure 1).

5.2 CLIMATE

The EPL is located in an area that receives between 200 – 250 mm of rain per year, with a variation coefficient of 50 - 60% (Mendelsohn, et al 2002), meaning that rainfall is fairly unpredictable. Rainfall events are limited to the summer months, mainly between December and March, in the form of sudden thunderstorms often associated with heavy downpours. Potential evaporation can reach 2,200 mm per year. Relative humidity is low, rarely exceeding 20% in winter but may reach 80% in summer before or after thunderstorm build-up. Maximum temperatures average around 30 - 32°C, mainly recorded during afternoons between October and February, while minimum temperatures are around 2 - 4°C and are normally recorded during nights in June and July. Deviations from these averages are common, with the highest temperatures reaching 38 - 40°C and the lowest temperatures below 2°C. Frost occurs occasionally during winter (Mendelsohn, et al., 2002).

On the globe, Namibia is located in the belt that is dominated by prevailing high pressure cells. Off the coast the South Atlantic High is the reason for constant southwest winds, the Benguela Current, the upwelling cells of the ocean, and the subsiding air over the Namib Desert. Over the interior the Kalahari High dominates during winter and the subsiding air causes cloudless days with stable sinking air. The sinking air spirals outward and is the reason for the predominant east and northeast winds. During summer the positions of the high pressure cell fluctuate more, allowing low pressure cells to develop over the heated interior, which in turn pull-in moist air from the inter-tropical convergence zone.

Due to the rhythm of these pressure systems, the wind patterns remain fairly predictable. Prevailing wind over EPL 7699 is expected to be from the east and northeast, with occasional airflow from the southeast and southwest. Wind speed is expected to be low

with more than two-thirds of the time lower than 2 m/s. Wind speed is generally low over the interior, decreasing even more to the north. The stronger air movements during the afternoons and evenings are the result of the ground being heated more in some places than others. During the winter months wind speed is slightly higher (Mendelsohn, et al., 2002).

5.3 GEOLOGY

Formations of the Damara Supergroup, between 850 and 600 million years old, cover a large part of western Namibia north of Rehoboth. West of Rehoboth, and south of the Damara Supergroup is the Namaqua Metamorphic Complex (between 1,400 and 1,050 million years old), and east of Rehoboth is the much younger Kalahari Group of recent deposits (<70 million years old), which cover most of the older formations (Mendelsohn et al., 2002). The predominance of flat-lying Kalahari sediments on the surface means that there is almost no geological variation over this vast area that covers the largest part of the central interior of southern Africa and not many exposure of rocks occur.

Although recent, shallow deposits of unconsolidated material, mainly of aeolian origin cover most of the Kalahari, the underlying geology of Karoo sediments and volcanic intrusions of 300 – 180 million years old, is more complex. Most of the knowledge about the sediments of the Kalahari has been derived from boreholes, rare outcrops and along drainage lines and around isolated pans.

The entire EPL 7699 is located on the edge of the Kalahari Group. Low ridges of the Sinclair Complex, the youngest group of the Namaqua Metamorphic Complex, are oriented in a SW-NE direction on the EPL. Except for these outcrops the surface geology appears to be uniform, and the entire landscape has a gentle gradient (Figure 5).

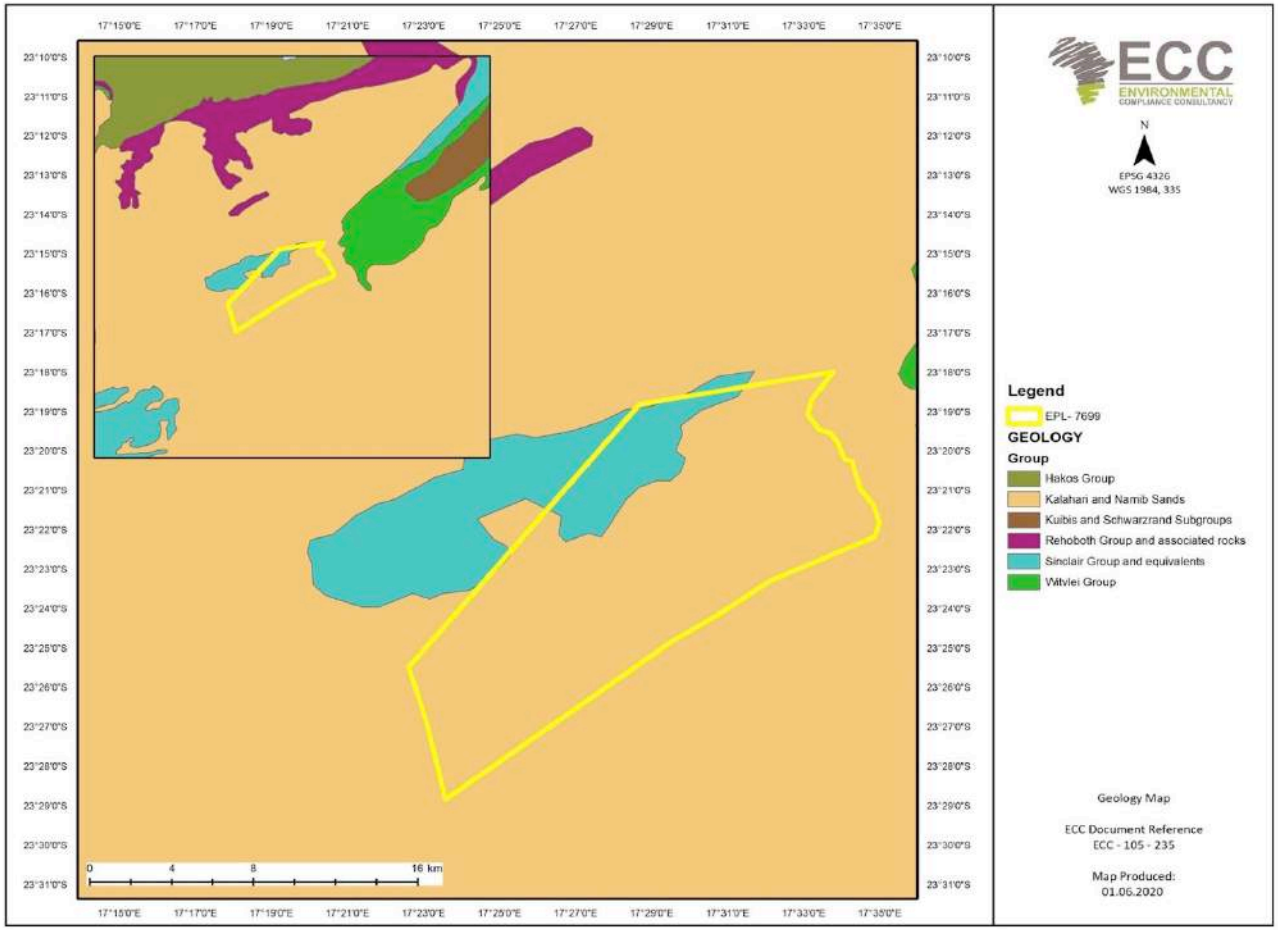

FIGURE 5 – GEOLOGY RELEVANT TO EPL 7699

5.4 TOPOGRAPHY AND SOIL

The topography of the EPL is flat, varying between 1,370 and 1,290 m above sea level. A few hills and ridges, associated with Karubeams Mountains interrupt the flatness. The terrain generally dips towards the east and south (Figure 6). The low ridges of the Karubeams Mountains in the southeast corner of the EPL contain the highest point at 1,470 m above mean sea level. The areas outside the EPL are flatter, as the Kalahari landscape dominates towards the east. Linear dunes become also more prominent towards the south and east, generally oriented in a NW-SE direction.

In the immediate surroundings of the outcrops eutric regosols are common. These soils are medium to fine-textured, typically associated with weathered landscapes. Although reasonably fertile, these soils form thin layers (not exceeding 50 cm) lying directly above the rock surfaces from which they originated. Regosols are susceptible to water erosion, especially where there is any degree of slope (Mendelsohn, et al., 2002).

Further away from the outcrops petric calcisols and ferralic arenosols dominate. Calcisols are associated with depressions and low-lying areas and typically contain accumulations of calcium carbonate, in most cases cemented as calcrete and visible on the surface as white blocks or forming a solid subsurface layer that remains hard even when wet. Arenosols are associated with the aeolian surface deposits of the Kalahari. These soils derived from wind-blown processes and usually extend to depths of several meters. Arenosols drain rapidly, due to a sand component of more than 70%. The high contents of combined oxides of iron aluminium (sesquioxides) give arenosols its typical reddish colour, and a fertility based on these minerals. However, due to its high porosity, the lack of organic matter and its inability to retain nutrients the cultivation potential of arenosols are limited.

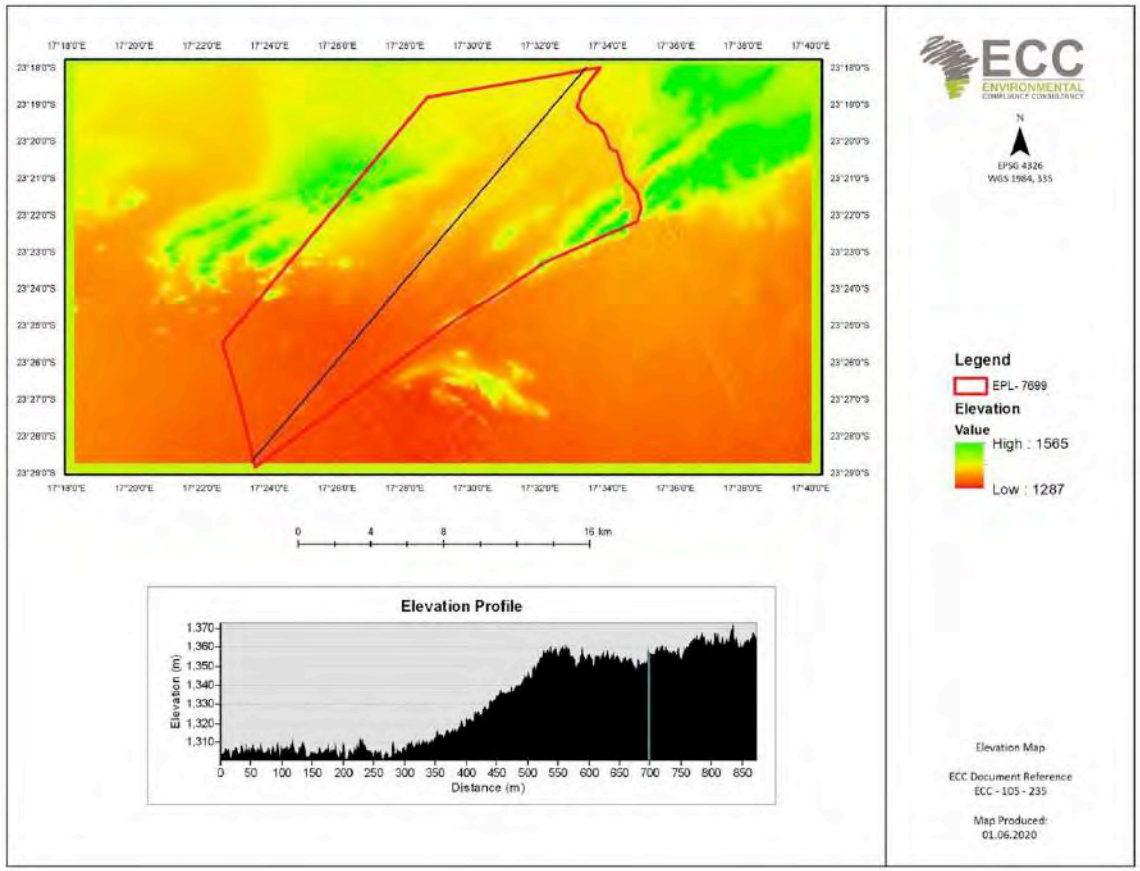

FIGURE 6 – ELEVATION RELEVANT TO EPL 7699

5.5 HYDROGEOLOGY AND HYDROLOGY

Surface water flow is in a southeast direction, following the general gradient of the Kalahari. The EPL is located between the basins of the Oanob River in the west and the Skaap River in the east. Both rivers originate in the Khomas Hochland in central Namibia. Both rivers are ephemeral, i.e. they only contain water for short periods shortly after sufficient run-off is received in their headwaters as a result of downpours. Both rivers are endorheic, i.e. they end on the interior and not into an ocean or into another river system. Both rivers dissipate in an area just south of the Tropic of Capricorn between Tsumis and Uhlenhorst, southwest of the EPL.

The Oanob River originates in the Khomas Hochland to the southwest of Windhoek and is dammed 5 km west of Rehoboth, to provide water to the town. South of Rehoboth the Oanob River sustains a dense stand of Camelthorn trees before turning in a more southerly direction. The Skaap River originates in the Auas Mountains south of Windhoek, heads east and then south through Dordabis, before turning southwest alongside the low ridges of the Karubeams Mountains. Figure 6 shows the general drainage direction of surface water flow. Land-use can be managed by encouraging run-off reduction through greater interception of rainfall and flow in generation areas.

The largest part of EPL 7699 is located in the South-eastern Kalahari Groundwater Basin. The farmers located within and nearby EPL 7699 obtain water from the number of boreholes in the area (Figure 7). The general direction of the groundwater flow is south to southeast and the Merten's mining site is located upstream. The South-eastern Kalahari Groundwater Basin shows a generally low to moderate potential of groundwater with an increased potential to the south. Therefore, groundwater contamination in the nearby boreholes occurring in the southern areas of the site may be possible. It is recommended that any open water accumulating in the pits be controlled by methods of dewatering (sump pumping) and sampling of surface water on a monthly basis for chemical constituents highlighted from the leach tests to track any potential risk to water quality affecting the quality of drinking water.

A water sample was taken in June 2009 at the Merten's borehole no. 3 and it showed that the overall classification of the water was in Group B, which is good quality water. In January 2020, a similar control sample was taken, confirming the same quality water. (Results can be found in Appendix C). Additionally, a water abstraction permit application was approved in May 2009 by the MAWLR for the drilling of a borehole to abstract water for mining and prospecting purposes.

Wastewater is produced during operational activities of the mine, for the current small scale mining activities, wastewater is contained in a Stormwater Return Dam (SWRD). The SWRD is unlined but it is equipped with a pump in order to ensure that no freestanding water remains for a long duration within the SWRD, thereby reducing potential seepage to groundwater. The effectiveness of these management and mitigation measures, to reduce the potential impact of groundwater contamination, should be monitored on a monthly basis, by taking groundwater level measurements and water quality sampling.

The tailings dam design and the nature of the tails play a role in the impact to groundwater systems. Management and mitigation measures to reduce potential impacts to groundwater from the tailings dam comprise of the inclusion of a liner beneath the dam, long-term rehabilitation plans, chemical and physical properties of the tailings, and water level management in the tailings dam (Journal of Mining and Metallurgy, 44 A (1) (2008)).

An environmental site audit was conducted by ECC, at the Mertens mining site in August 2020, to verify the on-site compliance with various pieces of Namibian environmental legislation and international environmental best practice. The site audit was limited to the operational footprint of EPL 7699, including the existing mining claims 68855 – 68861 and 67633. This included the areas of bulk sampling site, trial processing plant, trial tailings storage facility, and springbokbloed drilling and bulk sampling sites.

As per the environmental audits and recommendations, it is suggested that Applied Behaviour Analysis (ABA) time sampling and analyses be completed for the Waste Rock Dumps (WRD) and Tailing Storage Facilities (TSF) with complementing leach tests to understand and analyse the extent pollution potential of the site. The development of a formal storm water management plan is suggested to manage stormwater run-off and reduce the impacts of soil erosion and the drilling of at least one groundwater monitoring borehole down-gradient of the site. The return water facility should be lined or operational procedures should clearly indicate that no water should be stored in the facility to reduce the risk of seepage losses. Mitigation measures are included in the EMP.

Moreover, should the proposed exploration programme produce results that indicate a viable and minable resource, this could potentially lead to the extension of mining activities. For this purpose, the proponent is required to apply for a mining licence, whereby a full environmental impact assessment has to be performed.

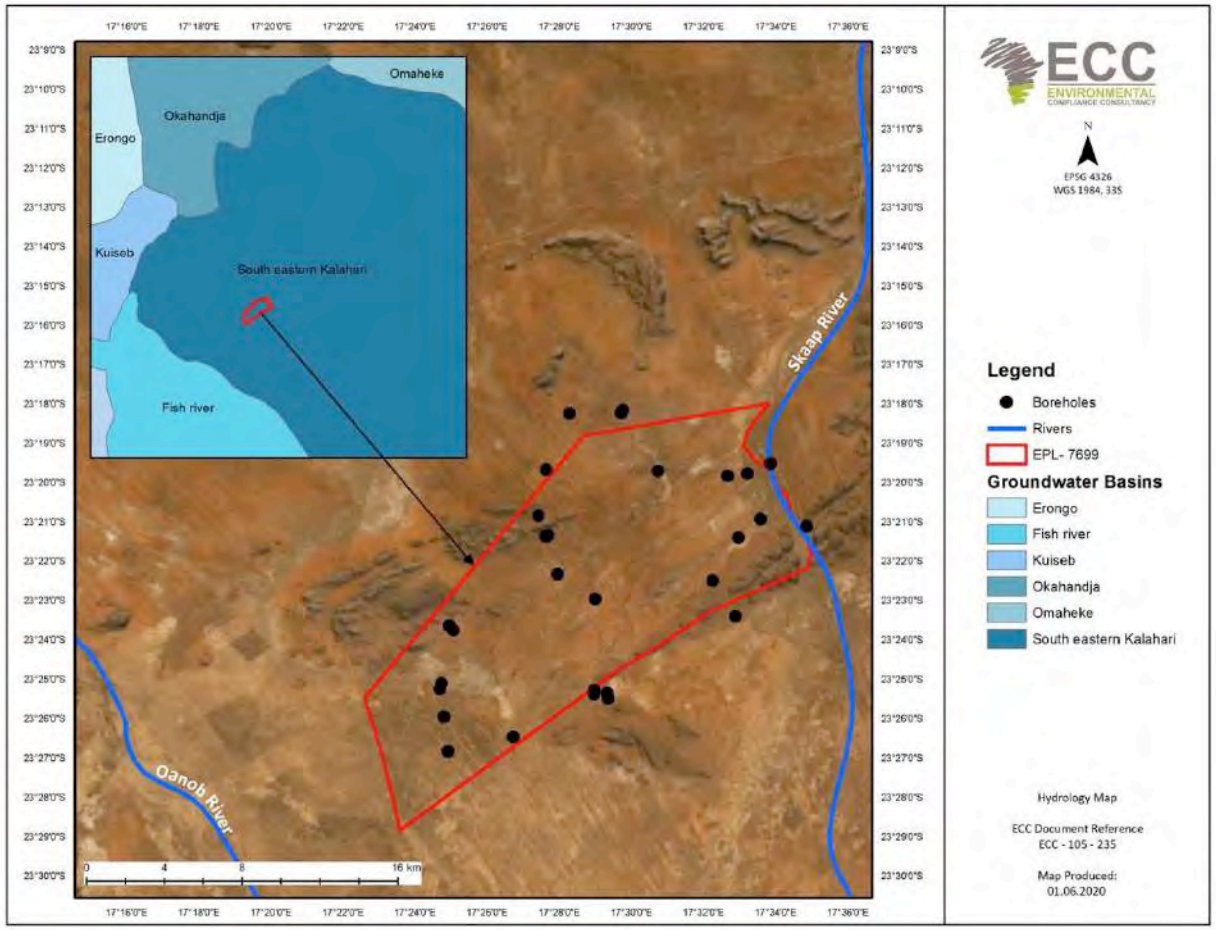

FIGURE 7 – HYDROLOGY RELEVANT TO EPL 7699

5.6 VEGETATION

To the east of Rehoboth, where EPL 7699 is located, a marked transition between the dense highland shrubland and the southern Kalahari vegetation types of the Acacia tree-and-shrub savanna sub-biome is noticeable (Figure 8). Where the soils are shallower, the landscape more hilly and the rainfall lower, plant growth tends to be shrubby. Eastwards, where the soils become deeper, rainfall increases and the landscape flattens, vegetation is characterized by large, open expanses of grass dotted by trees and bushes (Mendelsohn et al., 2002).

The most important environmental variable affecting the vegetation in this part of the country is rain and to a lesser extent frost, but micro-habitat conditions and rangeland management practices determine bush density and grass composition. Grazing resources are made up of a wide variety of grass species, which vary widely in palatability and abundance. Bush encroachment is noticeable, mainly on farmland exposed to continuous periods of selective grazing by livestock. Moreover, the densification of bush has led to a decreased carrying capacity on some farms in the area where EPL 7699 is located.

Plant diversity is estimated between 150 and 299 species and plant endemism is low, not exceeding five species (Mendelsohn et al., 2002). Local differentiation as a result of topographical variance and availability of water is possible though. Vegetation on the Kalahari dunes and on the sandy plains between dunes differs markedly, while diversity around pans and along drainage channels increases and plants become denser and higher. On rocky, elevated areas such as the hills and ridges associated with the Karubeams Mountains, diversity increases too.

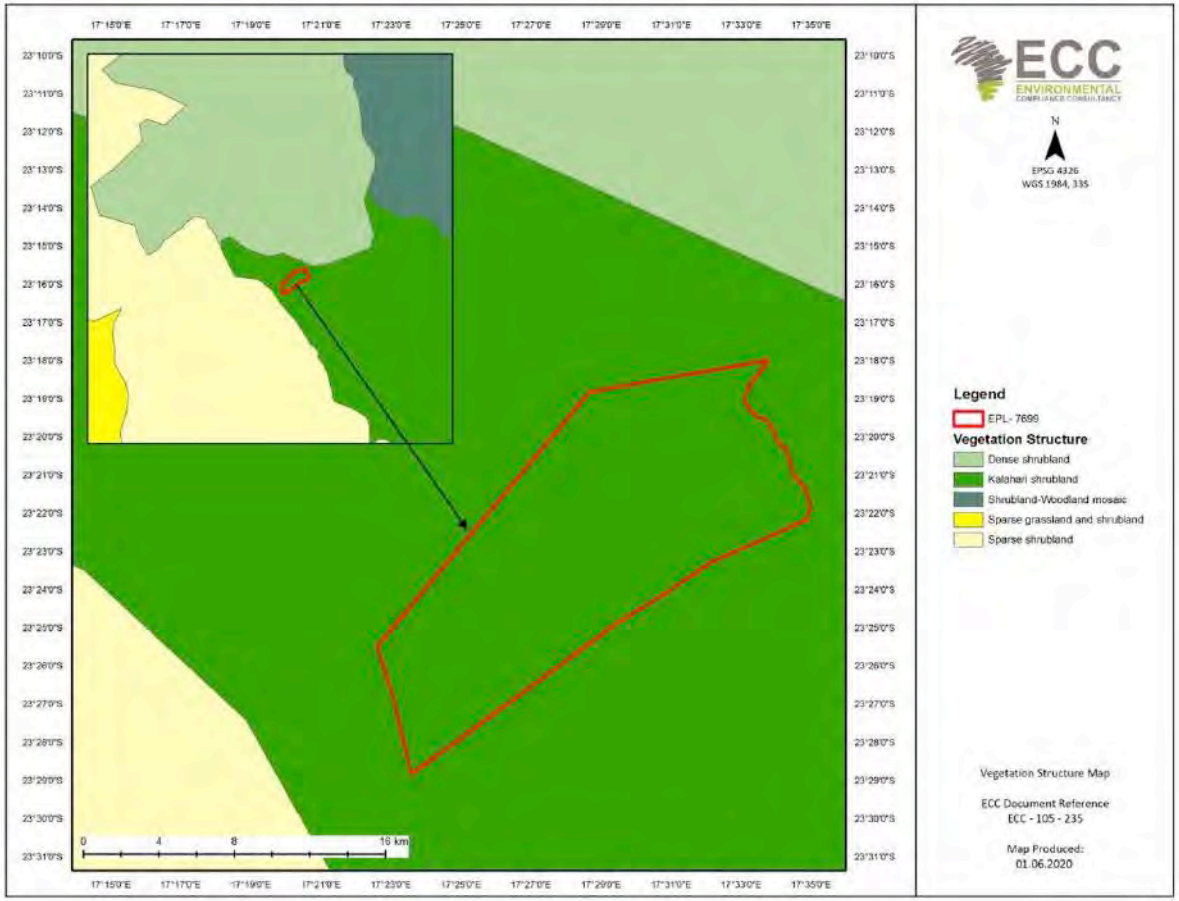

FIGURE 8 – VEGETATION MAP RELEVANT TO EPL 7699

5.7 FAUNA SPECIES

Overall terrestrial biodiversity in the areas east of Rehoboth, where EPL 7699 is located, ranges from medium to high. As endemism trends in Namibia show a clear decline to the east, the number of endemic fauna species potentially occurring on EPL 7699 is expected to be low. The number of mammal species ranges between 46 and 60, the number of bird species is between 171 and 200, with 61 – 70 reptile species, 8 – 11 frog species and 16 – 17 scorpion species that could be expected (Mendelsohn et al., 2002). On a local scale it is expected that diversity increases with the increase in habitats, which is closely coupled to shelter, food and water availability and migration routes. Elevation and water availability play a prominent role in this regard and is directly related to the increase in terrestrial diversity towards the northwest.

Protected species such as the rhino are occasionally present in the area, poaching of high value conservation species in Namibia is illegal. The proponent and business partners should avoid the disruption of protected and threatened species (rhinos that occur in the area) and birds such as the Ludwig's Bustards and Kori Bustards. It has been recorded that these birds may move extensively in response to rain and availability of food and are particularly prone to collisions with power lines.

The Ludwig's Bustard is near-endemic to southern Africa, with a range centred on the dry biomes of the Karoo and Namib. It is found predominantly in the western Namibia. In Namibia's protected areas, it occurs in the Skeleton Coast Park, the Namib- Naukluft (Boyer & Bridgeford 1988), Etosha and Tsau// Khaeb (Sperrgebiet) national parks, as well as the (private) NamibRand Nature Reserve.

The Ludwig's Bustard occurs in areas receiving less than 500 mm rainfall, including open lowland and upland plains with grass and light thornbush, sandy open shrub veld and semi-desert in the arid and semi-arid Namib and Karoo biomes. It is typically found on flat terrain. In the Namib-Naukluft National Park, 65% of birds occurred on sandy plains, 20% on rocky plains and 15% on gravel plains (Birds to watch in Namibia, Simmons, *et al*., 2015).

It has been studied from the 2016 Wiese Birding report, that Farm Wiese is rich in birdlife. The farm supports a number of locally as well as globally threatened and or near threaten species It was reported that birdlife and species are threaten due to human activities (Kremper J., 2016). Farm Wiese has been noted to be one of the top bird ringing hotspots in Namibia. Annual gatherings are held for the purpose of concerted bird ringing efforts (with the aim of yielding crucial re-sighting data).

The Bustards are large, heavy flyers with poor manoeuvrability. These birds tend to roam nomadically, not following regular flight paths, and often fly in the half-light of dawn and dusk.

Biodiversity and ecosystem services are of particular importance to the tourism, agriculture and fisheries sectors in Namibia, which alongside mining, form the basis of the Namibian economy. Around 70 per cent of Namibia's population also depends on the natural resource base their income; food; medicinal needs; fuel and shelter. Against this background, the maintenance and enhancement of biodiversity and ecosystem health is of vital importance to Namibia's socio-economic development (MEFT – Convention of biological diversity, 2014).

The EPL is entirely covered with land used predominantly for extensive grazing. Like elsewhere in Namibia, some farms are also used as guest and hunting farms, aimed at tourism. Predators are common and to protect their livestock, farmers are required to manage predators such as jackals, cheetahs, leopards and caracals.

5.8 Socio-economic Baseline

The largest part of EPL 7699 is located within the Khomas Region, but a small portion overlaps with the Hardap Region.

The Khomas Region is the central region of Namibia and is named after the Khomas Hochland, the prominent highland landscape that surrounds Namibia's capital. In the west and northwest the region is bordered by the Erongo Region, by the Otjozondjupa Region to the northeast, the Omaheke Region to the east and the Hardap Region to the south. Although the Khomas Region only occupies 4.5% of the land area of Namibia, it accommodates the largest percentage (18%) of the national population total in 2016 (Namibia Statistics Agency, 2017a).

Three times the size of the Khomas Region, Hardap Region stretches from the Atlantic Ocean in the west to the border with Botswana and South Africa in the east. In the north it borders the Erongo, Khomas and Omaheke Regions and in the south the Karas Region. The region is named after the Hardap Dam, the man-made lake in the Fish River north of Mariental. Only 4% of all Namibians reside in the Hardap Region (Namibia Statistics Agency, 2017a).

5.8.1 Demographic profile

Namibia is one of the least densely populated countries in the world (2.8 persons per km^2). Vast areas of Namibia are without people, in contrast to some fairly dense concentrations,

such as the central-north and along the Kavango River. Windhoek, the capital, functions as a primate city – not only is it the urban area with the biggest population, but the concentration of private and public head offices attracts Namibians from all parts of the country in search for a better life. National population growth rate is estimated at less than 2%, lower than most African countries. Namibia's population is young - although 57% falls in the age group 15 – 59, 37% of the total population is younger than 15 (Namibia Statistics Agency, 2017). Since 2005 a steady improvement in life expectancy was recorded, currently estimated at 65 years. In 2018 it was estimated that 50% of all Namibians are urbanized, in other words living in an urban settlement (retrieved from www.worldpopulationreview.com). The last national census was conducted in 2011 and counted 2.1 million Namibians (Namibia Statistics Agency, 2011). An inter-censal demographic survey was conducted in 2016 and estimated the total population at 2.3 million (Namibia Statistics Agency, 2017a).

Population density in the Khomas Region is 4.2 times higher (12 persons per km^2) than the national figure while the figure for the Hardap Region is four times lower (0.7 person per square km). The projected total population for the Hardap Region was 87,186 and for the Khomas Region 415,780 in 2016. Whereas 95% of all people in the Khomas Region lived in an urban place in 2016, only 40% of all people in Hardap Region live in an urban place. Oshiwambo is the most spoken language in the Khomas Region (41% of all households) whereas Khoekhoegowab (49% of all households) is the most common language in the Hardap Region. Average household size in the Hardap Region is 2.9 and in the Khomas Region 3.5. Literacy rate in the Khomas Region is 97% for people older than 15, in contrast to the figure of 85% in the Hardap Region. Living in an urban environment implies better living conditions – in the Hardap Region 98% of all households have access to safe water, 44% have no toilet facility, 56% have electricity for lighting and 58% of all households make use of open fires to prepare food. These figures are lower than that of the Khomas Region where 100% of all households have access to safe water, only 25% have no toilet facility, 64% have electricity for lighting and only 7% of the population depend on open fires to prepare food (Namibia Statistics Agency, 2017a).

The dominance of Windhoek as a place of residence in the Khomas Region is apparent – except for the capital all other urban places in the Khomas Region are classified as settlements – the lowest order of governed populated places in Namibia. In contrast the population of the Hardap Region is more dispersed and spread between several governed populated places, namely three towns (Rehoboth, Mariental and Aranos), five villages (Kalkrand, Stampriet, Maltahöhe, Gochas and Gibeon) and several tiny settlements (Schlip, Hoachanas, Rietoog, Uibis, Klein Aub, Khauxas).

The urban population pyramid for Namibia shows a very clear dominance of the age group 20 – 35 as well as for infants (0 – 4 years of age). As the majority of people in the Khomas Region are living in an urban area, the dominance of Windhoek is further apparent – the population of the Khomas Region is young, most of them within the child-bearing age range. The urban population pyramid for Namibia contrasts sharply with the one for rural population. The base of the pyramid reflects people younger than 25, and forms the majority of the total population – meaning that most people are young Namibians (Namibia Statistics Agency, 2017a).

5.8.2 Governance

Namibia is divided into 14 regions, subdivided by 121 constituencies. The Khomas Region is divided into ten constituencies and the Hardap Region has eight constituencies. Each region has a regional council, elected during regional elections per constituency. Towns are governed through local authorities, in the form of municipalities.

Windhoek is the national capital and also the capital of the Khomas Region while Mariental is the capital of the Hardap Region. As the country's capital Windhoek hosts many of the national head offices as well as the head offices of the Khomas regional council, while Mariental hosts the regional head offices of the Hardap Region. Rehoboth is the closest town to EPL 7699 and is governed by a local authority. Windhoek is governed by a local authority in the form of a city council while Rehoboth and Mariental (as well as Aranos) are governed by their respective town councils. Villages are governed by village councils and settlements by the central government.

5.8.3 Employment

The labour force participation rate is the proportion of the economically active population, given as a percentage of the working age portion of the population (i.e. older than 15 years of age). Rates of labour force participation for the Hardap and Khomas Regions were 74.1% and 79% respectively, compared to the average of 69.4% for Namibia in 2016 (Namibian Statistics Agency, 2017b).

In 2016, 48.5% of all working Namibians were employed in the private sector and 18% by the state. State-owned enterprises employ 5.3% and private individuals 28.1%. Agriculture (combined with forestry and fishing) is the economic sector with the most employees – 20.1% of all employed persons in Namibia work in this sector. Of all people employed, 40% fall in the occupational group of general labourers and other unskilled occupations. Wages and salaries represented the main income source of 61.7% of households in Namibia, especially pronounced in the Khomas Region with 74.5% (Namibian Statistics Agency, 2017b).

Low education levels affects employability and prevents many households to earn a decent income. Of all employed people in Namibia, 61% are not higher qualified than junior secondary level (Grade 10 and lower). In total 9.5% of all employed people have no formal education. Overall the rate of unemployment is estimated at 34% for Namibia, using the broad definition of unemployment. The unemployment rate in rural areas is higher (39.2%), compared to urban places (30.3%). The highest unemployment rates are found amongst persons with education levels lower than junior secondary, and the unemployment rate of persons with no formal education is 34.5%. In the Hardap Region the unemployment rate is 37.7% and in the Khomas Region it is 28.4% (Namibian Statistics Agency, 2017b).

Of all employed Namibians, 2.2% are directly employed by the mining sector, of which 47.5% are regarded as informal workers. Employees in the mining sector receive better wages when compared to other sectors (Namibian Statistics Agency, 2017b). The multiplying effect of income from employment in the mining sector is also significant – it is estimated that the mining industry contributes to the livelihood of about 100,000 Namibians (BDO, 2019).

Although declining over time, agriculture (combined with forestry and fishing) is the sector that employs most Namibians (20.1%) and it is also the sector with the most employers. It is also the sector that employs the most informal workers in Namibia, calculated at 89.6%. Wages of employees in the agriculture sector are lower than all other sectors except for domestic work in private households (Namibian Statistics Agency, 2017b).

5.8.4 Economy

In the Hardap Region 61.1% of all households depend on salaries and wages as their main source of income, subsistence farming provides the main income for 1.6% of households and non-farming business activities are responsible for the main income of 3.7% households. In the Khomas Region 74.5% of all households depend on salaries and wages as their main income source, only 0.2% of households depend on subsistence farming as the main income and 9.7% of all households get their main income from non-farming business activities (Namibian Statistics Agency, 2017b).

The economy of the Hardap Region is predominantly agriculture-based. Extensive livestock farming is a common activity over the entire region, but intensive farming is also practiced at the irrigation scheme below the Hardap Dam near Mariental. Several crops are produced here, but there are also activities such as piggery, a diary super farm and abattoirs. Elsewhere irrigation is practiced by utilizing groundwater from the Stampriet artesian aquifer, although at a localized and small-scale. The prominence of agriculture as a primary economic sector in the Hardap Region is responsible for a high figure of informally-employed people – 71.3%. Agriculture is less prominent in the Khomas Region where the

majority of people are urbanized. The figure for informal-employed people is also lower (55.6%) as people are employed in a wider range of secondary and tertiary economic sectors such as administration, services and manufacturing (Namibian Statistics Agency, 2017b).

Extensive livestock farming forms the livelihood of many people in the Hardap Region, and is one of the reasons for the low intensity land use, the low total population as well as the low population density. Large parts of the region are covered by commercial and communal farms, mainly for small livestock farming. Guest farms and hunting farms are also common, especially in the western parts around tourist attractions such as Sossusvlei and the Namib-Naukluft National Park. Guest farms and other tourism-related economic activities are also common in the Khomas Region, mainly as a result of its strategic location in Namibia, because of the attraction of Windhoek as the capital and because of the international airport at Hosea Kutako.

Mining plays a pivotal role in the economy of Namibia. Since independence, it has consistently been the biggest contributor to Namibia's economy in terms of revenue and accounts for 25% of the country's income. Mining is one of the main contributors to GDP, and one of the largest economic sectors of Namibia. The main commodities are uranium, gold, diamonds, copper, zinc, lead, salt and dimension stone. Mining in the Khomas and Hardap Regions is not as pronounced as in the Erongo, Karas, Otjozondjupa and Oshikoto Regions of Namibia. Mining operations in both regions ceased in the past as the resources were exhausted and commodity prices made business uneconomical.

Since 2016 Namibia recorded slow economic growth, registering an estimated growth of only 1.1% in 2016. The primary and secondary industries contracted by 2.0 and 7.8% respectively. During 2017 the economy contracted by 1.7, 0.7 and 1.9% in the first, second and third quarters respectively (Namibian Statistics Agency, 2018). Despite the more positive expectations, the economy retracted to an average growth of not more than 1% annually since 2017.

5.8.5 HEALTH

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

HIV/AIDS remains a major reason for low life expectancy and is one of the leading causes of death in Namibia. There is a high HIV prevalence among the whole population, but since the

peak in 2002 (15,000 new cases of HIV per year, and 10,000 deaths due to AIDS) the epidemic started to stabilise.

The Khomas region has 33 facilities which provide basic health care services which caters for outpatient care for sick children and adult services for STI's, temporary methods of family planning, etc. (ICF, Macro, 2011)

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

5.8.6 CULTURAL HERITAGE

In Namibia several mountains are closely coupled to heritage values, and it is possible that this applies to the Karubeams Mountains as well. The EPL overlaps with some of the elevated areas related to these mountains. Little is known about the cultural heritage potential of the mountains.

A review of the National Heritage Council database was conducted, and no known heritage sites were identified in EPL 7699. Moreover, an archaeological site survey was conducted by Dr John Kinahan, in the project area. An archaeological assessment report was issued on the 22 February 2021 (refer to Appendix E). The focus area lies within the EPL. All exploration work will be conducted within this area; therefore, the heritage survey was directed to assess the heritage potential of this area. A detailed foot survey concentrating on the area of Mining Claims 68855-68861 and 67633 found no significant archaeological sites and is therefore considered to have a low archaeological sensitivity.

Additionally, no landforms were considered to be significant in terms of possibly being a habitat in which archaeological artefacts could be found and therefore require special mitigation measures. The EMP (Appendix A) will adopt the chance-find procedure devised for mining projects. The heritage study

If any historically important or heritage sites on or around the project area are encountered during exploration activities, the same will be reported to the Monument's Council in Windhoek, and the site will be left untouched.

5.8.7 SENSE OF PLACE

EPL 7699 is entirely located in a rural area, where the predominant land use is extensive livestock farming, with occasional guest and hunting farms in between. No settlement, other than isolated farm homesteads occur within the area. People live remotely from each other and the population density is low. The area is undeveloped, with the only signs of human influence are in the form of farm infrastructure, i.e. water installations, fences, tracks and buildings. Sensitive receptors associated with EPL 7699 include farm owners and farm workers, private visitors, tourists and neighbours.

The naturalness of the area can be disrupted by the combined and amplified effects of exploration activities – in the form of noise, dust, movements of heavy machinery, landscape scars and visual obtrusions. This may alter and affect the lifestyle of receptors, although the exploration activities are short-term and reversible. The proponent will ensure that prior communication and noise simulation are practiced.

6 IDENTIFICATION AND EVALUATION OF IMPACTS

The key stage of the ESIA process is the impact prediction and evaluation stage. This stage is the process of bringing together project characteristics with the baseline environmental characteristics and ensuring all potentially significant environmental and social impacts are identified and assessed. Impact prediction and evaluation involve envisaging the possible changes to the environment as a result of the proposed project. The recognized methodology was applied to determine the magnitude of impact and whether or not the impact was considered significant and thus warrant further investigation. The assessment considers all stages of the project's life cycle that is scoped into the assessment and is presented in this report. It is an iterative process that commences at project inception and runs through to the final design and project implementation (construction and operations). The impact prediction and evaluation stage were undertaken in September 2020 and the findings of the assessment are presented in this document.

6.1 INTRODUCTION

Chapter 2 provides an overview of the approach used in this ESIA process and details each of the steps undertaken to date. Predication and evaluation of impacts is a key step in the ESIA process. This chapter outlines the methods followed to identify and evaluate the impacts arising from the proposed project. The findings of the assessment are presented in this chapter.

This chapter provides the following:

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

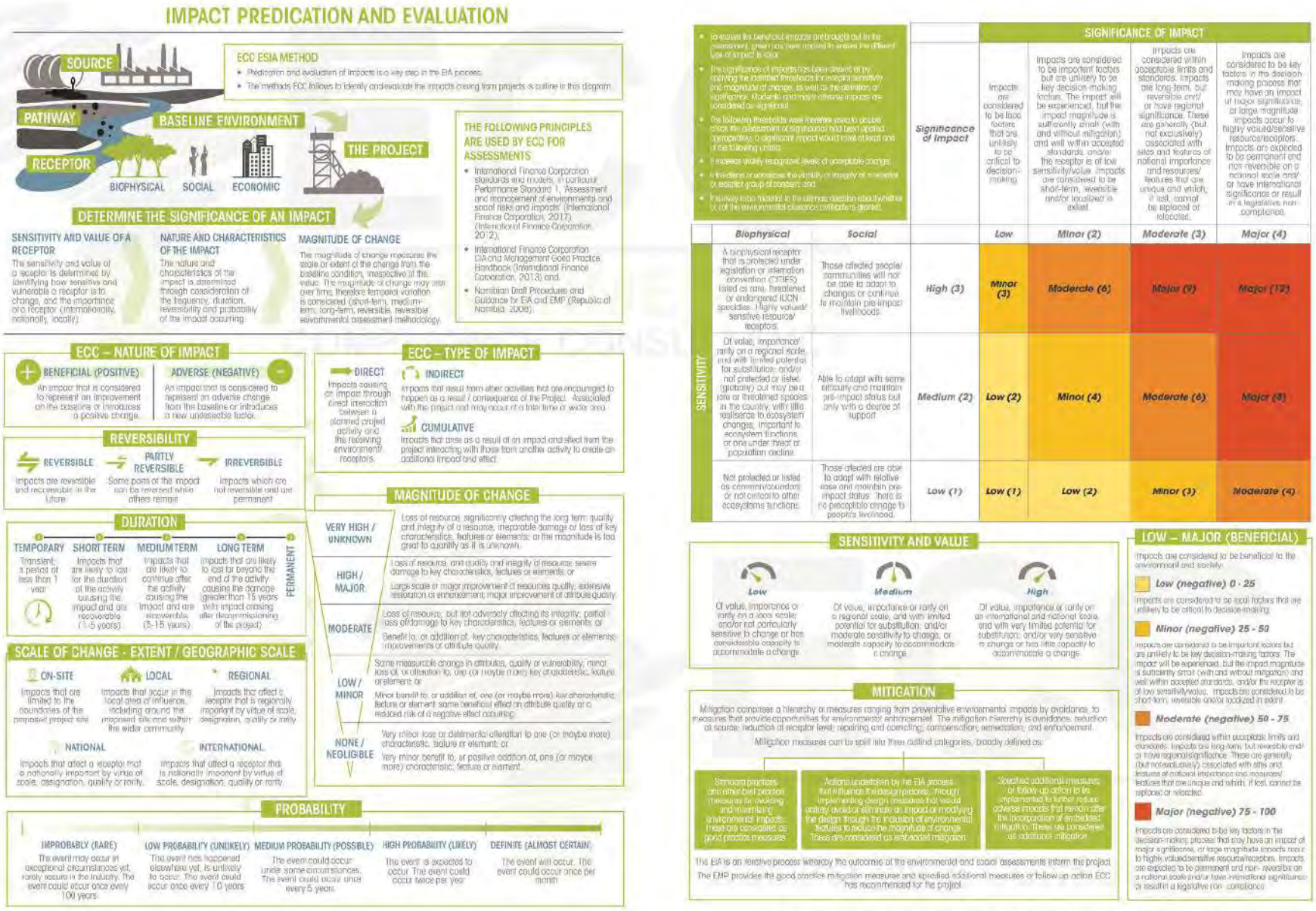

FIGURE 9 - ECCS IMPACT PREDICTION AND EVALUATION PROCESS

6.2 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

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

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

A number of limitations and uncertainties were acknowledged during the ESIA process. In line with ESIA best practice, assumptions have been made based on realistic worst-case scenarios, thereby ensuring that the worst-case potential environmental impacts are identified and assessed. Table 7 contains the assumptions and uncertainties identified during the assessment process.

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

TABLE 7 – SUMMARY OF LIMITATION, UNCERTAINTIES AND ASSUMPTION OF THE EIA PROCESS

LIMITATION / UNCERTAINTY	ASSUMPTION
Program of activities	It is assumed that exploration work shall take place over a two-year period to establish a viable resource while metallurgical testing at the pilot plant onsite is taking place at the same time to optimize the processing method for a larger scale and feasible project. If commercially viable concentrations can be defined, the next phase can potentially transcend into mining operations.
	Exploration activities involve mapping, electromagnetic surveys and drilling, trenching and bulk sampling. The exact number of boreholes to be created is unconfirmed but three-hole sections are planned every 500m of a strike of 3000m, with infill drilling to follow. Trenching and bulk-sampling are part of this phase. It is assumed that exploration activities are limited to these stipulated undertakings.
	Crushing, milling, trial processing and metallurgical testing are part of the activities at the small scale pilot plant to determine optimized methods. A diesel generator onsite provides power for these operations. Tailings from the plant are deposited in a small single-point depository retainer dam. Expansion of the current facilities is not foreseen.
Number of workers and area they will come from	It is planned that the full-time team will exist of 28 staff members. The numbers of contractors are unknown, however.
Water supply	The existing borehole onsite is approved and monitored and supplies the current and planned operations with water for domestic as well as other uses. It is assumed that no additional abstraction borehole would be required.
Access route and creation of new tracks	The making of new tracks or access roads will be avoided, and existing tracks and routes will be used as far as possible. While every effort will be made to minimize environmental damage, in some cases it will be necessary to clear some areas to create small roads and to conduct exploration activities.
Structures	No permanent infrastructure is planned for the first phase of the project. The existing pilot plant, crushing and milling plants and the diesel generator are all non-permanent structures.

7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MANAGEMENT MEASURES

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

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

The following topics were considered during the scoping phase:

- Surface water and groundwater;
- Soils and topography;
- Landscape (visual impacts, sense of place);
- Socioeconomics (employment, demographics, and land-use);
- Ambient noise and vibrations;
- Ecology (fauna and flora);
- Air quality (emissions, pollutants and dust); and
- Cultural heritage.

Table 8 sets out the findings of the scoping assessment phase. Activities that could be the source of an impact have been listed, followed by receptors that could be affected. The pathway between the source and the receptor has been identified where both are present. Where an activity and/or receptor has not been identified, an impact is unlikely, thus no further assessment or justification is provided. Where the activity, receptor and pathway have been identified, a justification has been provided documenting if further assessment is required or not required.

Due to the nature and localised scale of the exploration activities, and the environmental context of the EPL, the potential environmental and social effects are limited and of minor significance. The main area where uncertainty remained during the scoping phase was the potential impacts of groundwater contamination and impacts on avian fauna. Correct mitigation measure should be in place to ensure that these impacts are kept minimal.

TABLE 8 – SUMMARY OF POTENTIAL IMPACTS

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Groundwater quality	Site operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources.	Hydrocarbon leaks and spills could enter the aquifer causing contamination.	Adverse Direct Partly reversible Moderate Short term Regional Possible	Medium	Minor	Minor (4)	- Good house keeping - Training through toolbox talks and induction - All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil - Spill kits and absorption material available during fuel delivery, storage or use - Accidental spills and leaks (including absorption material) to be cleaned as soon as possible - Major spills to be reported, also to the authorities - Maintenance and service schedules on equipment is in place - Store bulk fuel in adequate containment areas (non-porous surface,	Low (2)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							bunded, within a fenced-in area) - Ensure integrity of containment with regularly inspections) - No damaged containers in use - Preventative measures will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers) - Refuelling is done in areas with adequate preventative measures in place	
Groundwater quality	Potential spillages of drill fluid, lubrication, etc. or exploration activities that	Hydrocarbon leaks and spills could enter the aquifer causing contamination.	Adverse Indirect Partly Reversible Minor Short term Local	Low	Minor	Low (2)	- Ensure spill kits and preventative measures (e.g. drill pads) are in place at exploration sites - Drill system should be dug to direct any accidental spills into sumps	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
	penetrate the groundwater table.		Possible				- Extraction volumes of water shall be minimal during exploration and where possible, water from existing water sources shall be used	
Water	Discharge and infiltration of non-contained wastewater and processing effluent (including effluent from the plant and tailings dam)	Wastewater can contaminate surface and groundwater	Adverse Direct Partly Reversible Minor Short term Regional Unlikely	Low	Minor	Low (2)	- Wastewater discharges will be contained - Workers will be made aware about the importance of wastewater management - Good housekeeping - At the plant - all processing activities are containerized and water is recycled - At the tailings dam - install toe paddocks, and if necessary, cut-off trenches. In the worst case, establish monitoring boreholes - Ensure prompt clean-up of processing and tailings	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							spills - Monitor change in groundwater level	
Water	Inadequate management of waste	Waste items and litter can pollute drainage channels	Adverse Cumulative Reversible Minor Temporary Onsite Unlikely	Low	Minor	Low (2)	- Good housekeeping - Training and awareness through toolbox talks and induction - Implement a Standard Operational Procedure (SOP) on waste management, from cradle to grave for all kinds of waste possible onsite (e.g. domestic, mineral, hydrocarbons, etc.) - Raise awareness about the importance of responsible waste management - Implement a culture of correct waste collection, waste segregation and waste disposal - Avoid hazardous waste onsite - Wastewater discharges	Low (1)
Soil	Inadequate management of hazardous and hydrocarbon waste	Pollution of soil	Adverse Direct Reversible Minor Short term Onsite Possible	Low	Low	Low (1)		Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							will be contained – no disposal of wastewater or processing or tailings effluent	
Terrestrial ecology and biodiversity	Vegetation clearing for access routes and exploration activities	Loss / alteration of terrestrial habitats and loss of species	Adverse Direct Reversible Minor Short term Onsite Possible	Low	Minor	Low (2)	- Use existing roads for access to avoid new tracks - Minimise clearance areas through proper planning of the exploration activities, especially at drill areas - Where possible, rescue and relocate plants of significance - Promote revegetation of cleared areas upon completion of exploration activities	Low (1)
Terrestrial ecology and biodiversity	Ambient noise as a result of machinery use, the diesel generator, the crusher and mill, the pilot	Residing, nesting and slow moving birds that occur in the project area can be disturbed	Adverse Direct Reversible Minor Short term Onsite Likely	Low	Low	Low (1)	- Restrict excessive noise to areas of activities only - Restrict excessive noise to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday) - No activities between dusk	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
	plant and movement (also through the use of airborne equipment)						and dawn - Exploration equipment shall be suitably positioned to ensure that noisy equipment is away from receptors - All equipment to be shut down or throttled back between periods of use, - Respect civic aviation regulations about the use of a drone	
Terrestrial ecology and biodiversity	Increased movement of vehicles and equipment, as well as trenching	Residing, nesting and slow moving species in the areas of the proposed can be disturbed, injured or killed such as the birds (Ludwig's bustard and Kori bustard)	Adverse Direct Partly reversible Moderate Short term Onsite Possible	Low	Moderate	Minor (3)	- Restrict movements to areas of activities only - Use existing tracks and routes only - Identify rare, endangered, threatened and protected species in advance - Route new tracks around protected species and sensitive areas - Restrict movements to daytime hours - Make workers aware and	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							notify them on avoiding some areas - No driving off designated access routes / off-road driving - No animals or birds may be collected, caught, consumed or removed from site	
Terrestrial ecology and biodiversity	Increased disturbance of areas with natural vegetation	Alien species and weeds can be introduced to the area	Adverse Direct Reversible Minor Short term Onsite Possible	Low	Low	Low (1)	- Monitor areas of activity for weed and alien species - Eradicate weeds and alien species as soon as they appear - Make workers aware about alien species and weeds	Low (1)
Soil	Vegetation clearing	Increased exposure due to vegetation clearance can cause soil erosion	Adverse Direct Reversible Moderate Short term Onsite Possible	Low	Moderate	Minor (3)	- Ensure erosion control and prevention measures are in place when vegetation clearance is required - Where possible, plan access routes, drill pads and other activities	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							outside of existing drainage lines - Where necessary, install diversions to curb possible erosion - Restore drainage lines when disturbed	
Soil	Exploration activities, heavy equipment and vehicles	Loss of soil quality due to mixing of earth matter, trampling and compaction	Adverse Direct Reversible Moderate Short term Onsite Possible	Low	Moderate	Minor (3)	- Limit the possibility of compaction and creating of a hard subsurface - Limit the possibility of trampling - Where possible, topsoil should be stockpiled separately, and re-spread during rehabilitation - During exploration activities with heavy equipment, oil absorbent matting should be placed under and around the equipment - Equipment must be in a good condition to ensure that accidental oil spills do	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							not occur and contaminate soil - In the event of spills and leaks, polluted soils must be collected and disposed of at an approved site - Limit the possibility to mix mineral waste with topsoil	
Heritage	Exploration activities, movement of machinery and vehicles	Potential damage to cultural heritage sites	Adverse Direct Partly Reversible Negligible Permanent Onsite Possible	High	Major	Major (12)	- Implement a Chance Find Procedure - Raise awareness about possible heritage finds - Report all finds that could be of heritage importance - In case archaeological remains to be uncovered, cease activities and the site manager has to assess and demarcate the area - Project manager to visit the site and determine whether work can proceed without damage to findings, mark exclusion boundaries and inform	Minor (4)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							ECC with GPS position - If needed, further investigation have to be requested for a professional assessment and the necessary protocols of the Chance Find Procedure have to be followed, - Archaeologist will evaluate the significance of the remains and identify appropriate action, (record and remove; relocate or leave premises, depending on the nature and value of the remains), - Inform the police if the remains are human, - Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the	

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							remains to the National Museum or National Forensic Laboratory as directed.	
Community	Exploration activities, including dust and emissions	Visual disturbance and loss of sense of place	Adverse Direct Reversible Negligible Temporary Local Likely	High	Moderate	Major (9)	- Limit trenching and bulk sampling as far as possible - Position heavy equipment in such a way that it is out of sight from human receptors - Apply dust suppression where possible (loading, hauling, tipping) - Restrict speed of vehicles (<30km/h) - Specific activities that may generate dust and impact on residents shall be avoided during high wind events - All vehicles and machinery / equipment to be shut down or throttled back between periods of use - Barriers or fences shall be	Minor (4)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							used if exploration occurs in locations that may affect people, livestock or wildlife - Residents need to be informed at least two weeks in advance that exploration operations are within 1km of their property - Maintain good housekeeping - Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon	
Community	Movement of vehicles, exploration activities	Create conflict with farm owners and neighbours about access, leaving gates	Adverse Indirect Reversible Minor Short term Onsite	Low	Minor	Low (1)	- Ensure documented permission to enter farms - Farmers should have access to all farm areas at all times - Residents shall be	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
		open, suspicious movements, loss of farming area, etc.	Likely				provided at least two weeks' notice of exploration operations within 1 km of their property - Existing water points and feeding areas need to be left unaffected - Use existing roads for access, avoid new tracks, clearances - Compliance with all applicable laws and agreements - Continuous engagement with residents to identify any concerns or issues, and mitigation and management measures agreed upon	
Community	Movement of vehicles, exploration activities	Presence of exploration team can be blamed for stock theft and poaching	Adverse Cumulative Reversible Minor Temporary	Low	Minor	Low (2)	- Develop and implement an operations manual or procedures to work on private farms and implement monitoring	Low (1)

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
			Local Unlikely				programmes thereafter - Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon - Ensure appropriate supervision of all activities - Raise awareness and sensitize employees about contentious issues such as stock theft and poaching - Accidents and incidents need to be reported to the project manager and recorded in an incident register	
Community	Exploration activities	Triggers job creation, skills development and opportunities for the local	Beneficial Direct Reversible Minor Short term Local	Low	Minor	Low (2)	- Maximize local employment - As far as possible promote local procurement - Enhance development of local skills where possible	Low beneficial

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
		economy	Possible					

7.1 Impacts for Further Consideration

7.1.1 Impacts on Groundwater

Wastewater is produced during operational activities of the mine. Stormwater runoff can accumulate in the pits and for the current small scale mining activities, wastewater is contained in a SWRD. The SWRD is unlined but it is equipped with a pump in order to ensure that no freestanding water remains for a long duration within the SWRD, thereby reducing potential seepage to groundwater. The effectiveness of these management and mitigation measures, to reduce the potential impact of groundwater contamination, should be monitored on a monthly basis, by taking groundwater level measurements and water quality sampling. The development of a formal storm water management plan is suggested to manage stormwater run-off and reduce the impacts of soil erosion and the drilling of at least one groundwater monitoring borehole down-gradient of the site. The return water facility should be lined or operational procedures should clearly indicate that no water should be stored in the facility to reduce the risk of seepage losses. Mitigation measures are included in the EMP.

Through the ESIA investigation and I&AP consultations, it was determined that these impacts on groundwater, are recommended for further studies and assessments. Other impacts identified through this assessment and I&AP consultation, could be managed by the implementation of the EMP and recommended mitigation measures to ensure ongoing compliance thereof.

TABLE 9 – SUMMARY OF EFFECTS ON GROUNDWATER

ACTIVITY	RECEPTOR	IMPACT	NATURE OF IMPACT	VALUE & SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT
Small scale mining activities impacts from mining excavations and processing procedures	– Groundwater quality	Groundwater contamination due to the exploration and small scale mining activities could result in water potentially becoming extremely acidic with very high electrical conductivity and high heavy	Adverse Cumulative Partially-reversible Local Moderate Medium term Possible	Medium	Moderate	Minor Adverse

ACTIVITY	RECEPTOR	IMPACT	NATURE OF IMPACT	VALUE & SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT
		metal concentrations.				

7.1.2 Impacts on Avian Fauna and High Value Conservation Species

Protected species such as the rhino are occasionally present in proximity to project's area, poaching of high value conservation species in Namibia is illegal. The identified protected bird species on Farm Wiese are the Ludwig's and Kori's Bustard birds. These birds typically roost communally on raised, open ground and coastal dunes, they are extremely wary, they take off clumsily and fly low when startled. The Bustards are large, heavy flyers with poor manoeuvrability. These birds tend to roam nomadically, not following regular flight paths, and often fly in the half-light of dawn and dusk.

In Namibia, a status of endangered is recommended, on the basis of its global conservation status, the comparatively better researched situation of the Bustards birds in South Africa and the limited data from power line collision surveys available in Namibia. This categorisation requires confirmation, pending the results of current initiatives to assess local population size and trends and to estimate power line mortality rates in Namibia. It should be given specially protected status under any revised or future Parks and Wildlife legislation. (Simmons, *et al*., 2015).

The extensions of exploration and mining operation were found to have potential impacts on biodiversity namely birdlife due to the potential effects of vibration and ambient noise as there are (Ludwigs and Kori Bustards) species that occur in proximity to the project's area. These birds are ground nesting, and research has shown (Simmons, *et al.,* 2015) that these birds are susceptible to ground vibrations and therefore could potentially be directly affected by the project activities.

The mining and hauling process will be restricted to daylight, whilst processing and drilling may continue at night. Mitigation measures outlined in the EMP include possible relocation of species at risk (if viable), ongoing monitoring to determine if activities are impacting birds, altering exploration or mine plans to avoid activities that impact on nesting during nesting periods (egg-laying season is from February-May in Namibia). It is further recommended for proposed activities to be carried out before dawn and dusk, as these birds are known to fly often fly at dusk.

TABLE 10 – SUMMARY OF EFFECTS ON AVIAN FAUNA AND HIGH VALUE CONSERVATION SPECIES

ACTIVITY	RECEPTOR	IMPACT	NATURE OF IMPACT	VALUE & SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT
Cumulative exploration activities and small scale mining activities Increased movement of vehicles and machinery operation	– High value conservation species (such a the rhino) – Avian fauna species of (Ludwig's and Kori Bustard birds)	Small scale mining activities and exploration activities such as drilling and blasting may potentially result in the increased vibrations disrupting habitants and disturbing birdlife	Adverse Cumulative Partially-reversible Moderate onsite Short term Possible	Medium	Moderate	Minor Adverse

8 ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed project is presented in Appendix A. It provides management options to ensure the impacts of the proposed project are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The management measures should be adhered to during all stages of the exploration activities. All persons involved and partaking in the proposed activities should be made aware of the measures outlined in the EMP to ensure activities are conducted in an environmentally sound manner.

The objectives of the EMP are:

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

9 CONCLUSION

The environmental assessment that was undertaken for the proposed project followed ECC's ESIA methodology to identify if there is potential for significant effects to occur as a result of the proposed project. Through the scoping process, the main significant impacts identified are the potential of groundwater contamination as a result to small scale mining activities of mining excavation and processing procedures. Additional to the identified effects are on the disruption and disturbance to the avian fauna (birdlife) on farm Weisse, as a result of the combined effects of vibration and noise from machinery and movement of vehicles. With the suggested mitigation measures, impacts are likely to be kept at minimal. The assessment concludes that with the likely significant effects on the groundwater's quality, a water study should be carried out as operations expand. Various best practice and mitigation measures have been identified to avoid and reduce effects as far as reasonably practicable, as well as to ensure the environment is protected and unforeseen effects are avoided.

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APPENDIX A- EMP

APPENDIX B - NON-TECHNICAL SUMMARY

ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY

ECC-105-235-NTS-01-B

NON-TECHNICAL SUMMARY

EXPLORATION ACTIVITIES ON EPL 7699

INCLUDING THE EXPLORATION AND SMALL-SCALE MINING ACTIVITIES ON MINING CLAIMS 68855 – 68661 AND 67633

PREPARED FOR MERTENS MINING AND TRADING (PTY) LTD

MAY 2020

PO BOX 91193 Windhoek Namibia
Environmental Compliance Consultancy CC
CC/2013/11404

NON-TECHNICAL SUMMARY

PROPOSED EXPLORATION ACTIVITIES ON EPL 7699 INCLUDING THE EXPLORATION AND SMALL-SCALE MINING ACTIVITIES ON MINING CLAIMS 68855 – 68861 AND 67633 KHOMAS AND HARDAP REGIONS

1 PURPOSE OF THIS DOCUMENT

The purpose of this Non-Technical Summary (NTS) is to provide Interested and Affected Parties (I&APs) a background to the proposed project and to invite I&APs to register as part of the Environmental Impact Assessment (EIA) process.

The proposed project involves exploration activities for base and rare metals, industrial minerals, precious metals, precious stones and semi-precious stones on Exclusive Prospecting License (EPL) 7699, including the exploration and small-scale mining activities on mining claims 68855 – 68661 and 67633 operated by Mertens Mining and Trading (Pty) Ltd.

Through registering for the project, all I&APs will be kept informed throughout the ESIA process, and a platform for participation will be provided to submit comments / recommendations pertaining to the project.

- This NTS includes the following information:
  - The proposed project and location;
  - The necessity of the project, benefits or adverse impacts anticipated;
  - The alternatives to the project that have been considered and assessed;
  - How the ESIA process works;
  - The public participation process and how to become involved; and
  - Next steps and the way forward.

2 DESCRIPTION OF THE PROPOSED PROJECT

2.1 BRIEF INTRODUCTION

Environmental Compliance Consultancy (ECC) has been engaged by the proponent, Mertens Mining and Trading (Pty) Ltd, to undertake an Environmental Impact Assessment (EIA) and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, No.7 of 2007 and its regulations. An environmental clearance application will be submitted to the competent authority, the Ministry of Mines and Energy (MME), as well as the Ministry of Environment, Tourism and Forestry (MEFT).

2.2 LOCATION

Mertens Mining and Trading (Pty) Ltd proposes to explore in an area 25km east-southeast of Rehoboth. Although the largest part of the EPL is located in the Khomas Region, a small portion of it overlaps with the Hardap Region (see also the location map provided in Figure 1). A number of farms overlap and neighbour the EPL.

2.3 WHAT IS PROPOSED

Mertens Mining and Trading (Pty) Ltd (registration number 2007/0308) proposes to undertake bulk sampling, exploration activities and trial processing on EPL 7699. The existing mining claims (68855 – 68861 and 67633) of an area of extent less than 18ha will be converted and consolidated as part of EPL 7699.

2.4 WHY IS THE PROJECT NEEDED

Based on the host rock geology of the area, Mertens Mining and Trading (Pty) Ltd proposes to pursue exploration opportunities with the aim of identifying new mining prospects. Namibia is rich in natural resources and the minerals sector is a key contributor to GDP. Should exploration

results be viable, it could lead to mining activities, which may contribute to the national and local economy. As such Mertens Mining shall adhere fully to the norms of Health, Safety, Environment and Community.

2.5 OPERATION PHASE

The proposed exploration activities are low-impact and non-intrusive. The following are envisaged during the proposed project:

- Potential creation of access tracks, where existing tracks are not available
- Limited vegetation clearing for the creation of access routes and exploration activities
- Drilling of exploration boreholes
- Exploration methods may include mapping, soil sampling, electromagnetic surveys and drilling, trenching and bulk sampling, and
- Crushing and trial processing in an on-site pilot 10t/h flotation plant, including on-site power generation by a diesel generator.

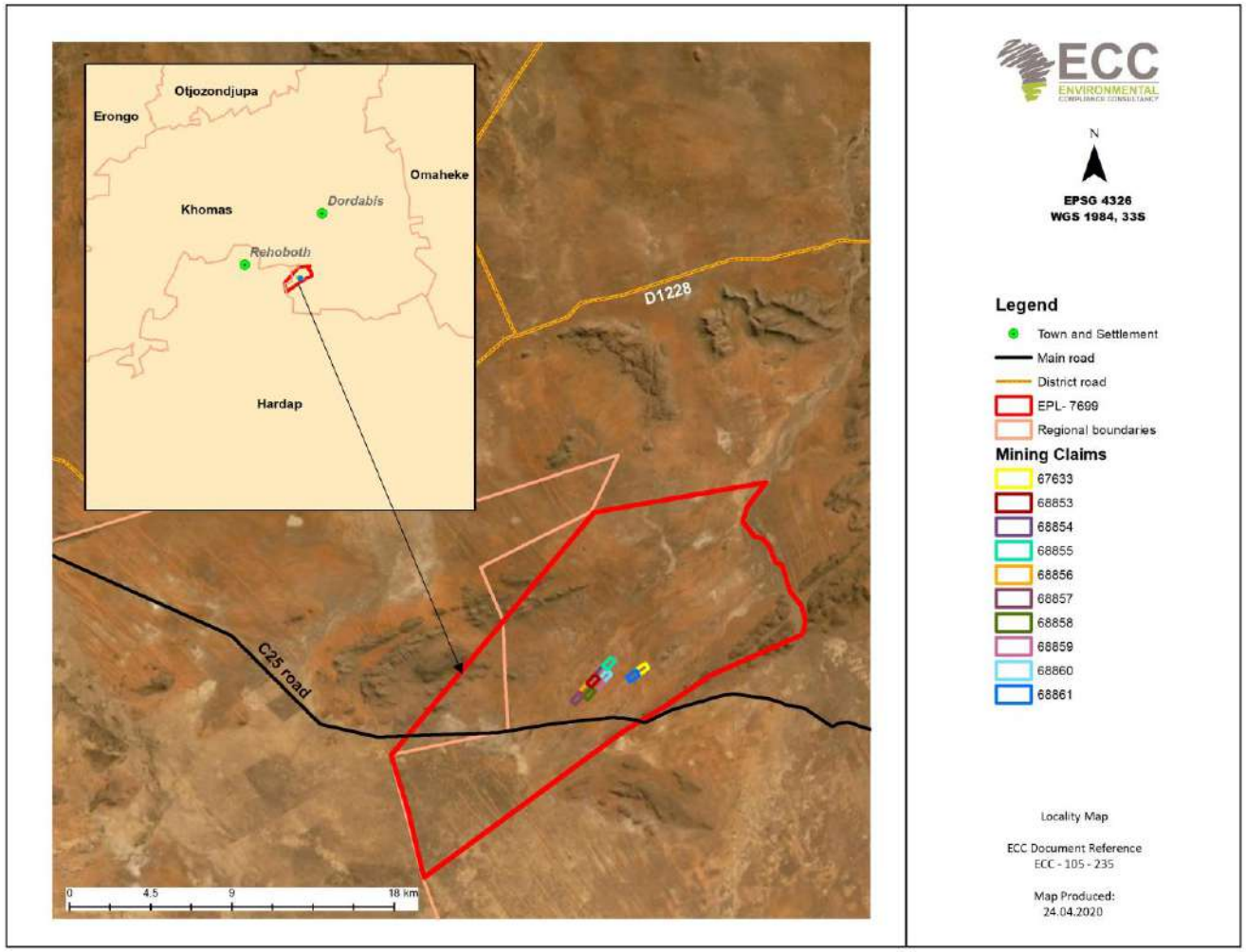

FIGURE 1 – LOCATION MAP OF THE PROPOSED PROJECT

2.6 POTENTIAL IMPACTS OF THE PROJECT

2.6.1 SOCIO-ECONOMIC

The potential social impacts are anticipated to be of low significance, and those that may transpire shall be confined within the EPL site, these potential impacts may include the following:

- Potential to unearth, damage or destroy undiscovered heritage remains;
- Minor disruption to the residents of the farms within the EPLs, including some increase in noise levels and dust arising from drilling and vehicle use;
- Some jobs will be created as a result of the project; and
- There will be economic benefits due to increased investment and investor confidence in the Namibian minerals sector.

2.6.2 ENVIRONMENTAL

The potential environmental impacts are anticipated to be of minor significance, and those that may occur shall be contained within the EPL site, these potential impacts may include the following:

- Some potential vegetation loss due to possible tracks creation and preparing of drill pads;
- Potential use of resources, including groundwater; and
- Minor risk of loss of contaminant of hydrocarbon, chemical or drill fluids from exploration activities potentially leading to localised soil contamination.

3 CONSIDERATION OF ALTERNATIVES

Best practice environmental assessment methodology calls for consideration and assessment of alternatives to a proposed project.

In a project such as this one, it is difficult to identify alternatives to satisfy the need of the proposed project; the activities shall be specific to the EPL 7699.

During the assessment, alternatives will take the form of a consideration of optimisation and efficiency to reduce potential effects e.g. different types of technology or operations, route access and exploration methods.

4 THE ENVIRONMENTAL ASSESSMENT PROCESS

This EIA, conducted by ECC, is undertaken in terms of the Environmental Management Act, No.7 of 2007 and its regulations.

The process followed in this EIA is set out in the flowchart in Figure 2.

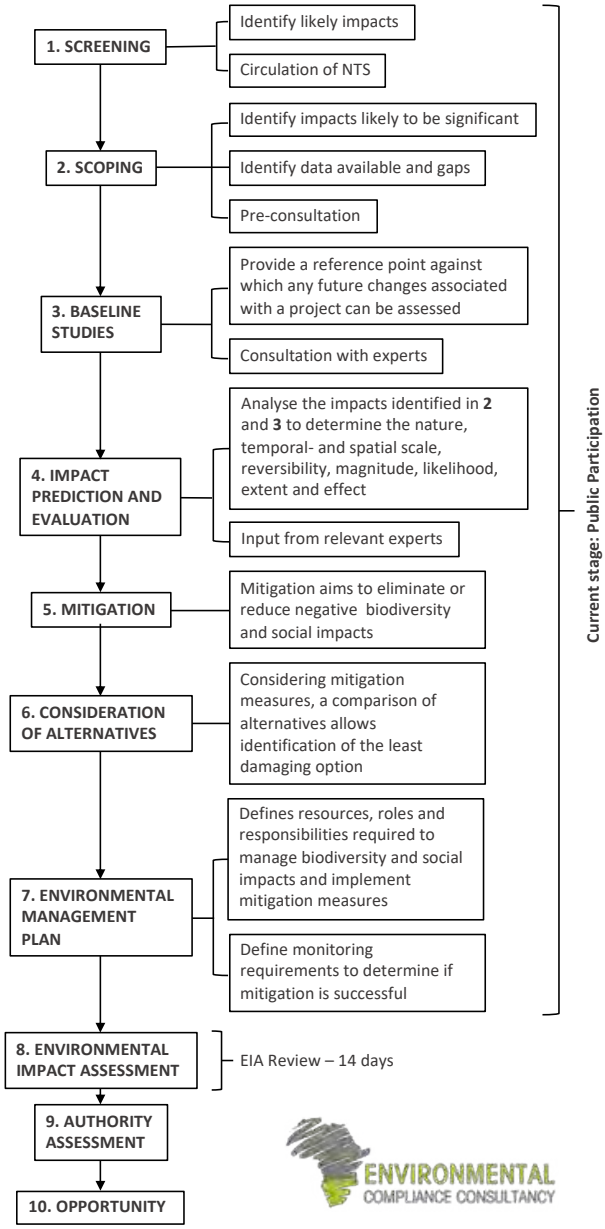

FIGURE 2 - FLOWCHART OF THE ENVIRONMENTAL ASSESSMENT PROCESS

4.1 SCREENING

A review of the proposed project screening findings against the listed activities was conducted; the findings of which are summarised below.

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

(1) The construction of facilities for –
the generation of electricity
the transmission and supply of electricity

- Power will be generated on-site by a diesel generator

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, No. 33 of 1992

- This listed activity, infers the provisions of the Minerals Act (Prospecting and Mining) Act 33 of 1992, under different licenses as basis upon which certain activities qualify for an EIA. Part X of the Minerals Act (1992) defines prospecting/exploration activities under the lawful ownership of an exploration license (EPL). An exploration license excludes any mining activities, but includes activities strictly relating to exploration work. Hence the current project strictly focuses on exploration and not mining

(3.2) Other forms of mining or extraction of any natural resources whether regulated by law or not

- Minerals will be sampled and extracted from within the EPL 7699.

(3.3) Resource extraction, manipulation, conservation and related activities

- The proposed project by its nature, involves resource extraction

WATER RESOURCE DEVELOPMENT

(8.1) The abstraction of ground or surface water for industrial or commercial purposes

- Due to the drilling of exploration boreholes, ground and surface water will need to be abstracted, or sourced. All the required permits shall be obtained from the Ministry of Agriculture, Water and Forestry.

The potential environmental and social effects are anticipated to be of minor significance, and those that may occur shall be contained on the EPL 7699 site.

4.2 SCOPING

Due to the nature of the proposed project, and the implementation of industry best practice mitigation measures during the mineral exploration phase of the project, the effects on the environment and society are expected to be minimal and localised.

4.3 BASELINE STUDIES

For the proposed project, baseline information was obtained through a desk-based study and site verification processes through focusing on the environmental receptors that could be affected by the proposed project. ECC will also engage with stakeholders, I&APs and the proponents to seek input into the assessment.

4.4 IMPACT ASSESSMENT

Impacts will be assessed using ECC's EIA methodology. The EIA will be conducted in terms of the Environmental Management Act, No.7 of 2007 and its regulations. ECC's methodology for impact assessments was developed using standards of the International Finance Corporation, in particular Performance Standard 1 'Assessment and management of environmental and social risks and impacts' (IFC 2012, 2017), the Namibian Draft Procedures and Guidance for EIA and EMP (GRN, 2008), international and national best practice and over 25 years of combined EIA experience.

4.5 Environmental Management Plan

An EMP shall be developed for the proposed project setting out auditable management actions for Mertens Mining and Trading (Pty) Ltd to ensure careful and sustainable management measures are implemented for activities in respect of the surrounding environment and community.

4.6 Public Participation and Advertising

Public participation is an important part of the EIA process; it allows the public and other stakeholders to raise concerns or provide valuable local environmental knowledge that can benefit the assessment, in addition it can aid the design process. This project is currently at the scoping phase and public participation phase.

At this phase ECC will perform the following:

- Identify key stakeholders, authorities, environmental groups and interested or affected members of the public, hereafter referred to as I&APs
- Distribute the NTS for the proposed project (this document)
- Advertise the environmental application in two national newspapers
- Place notices on-site at or near the boundary
- If required host a public meeting to encourage stakeholder participation and engagement, and provide details of issues identified by the environmental practitioner, stakeholders and I&APs
- Record all comments of I&APs and present such as comments, as well as responses provided by ECC, in the comments and responses report, which will be included in the scoping report that shall be submitted with the application, and
- Circulate comments of I&APs to the project team for consideration of project design.

Comments must be submitted in writing and can be emailed using the details in the section below.

CONTACT US

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

Environmental Compliance Consultancy (ECC)

info@eccenvironmental.com

Tel: +264 816 697 608

www.eccenvironmental.com

At ECC we make sure all information is easily accessible to the public.

Follow us online to be kept up to date:

APPENDIX C- EVIDENCE OF PUBLIC CONSULTATION

The following was advertised in the 'Republikein, the Namibian Sun, and Allgemeine Zeitung' newspapers on the 09th September 2020.

2 Republikein Sun Allgemeine Zeitung **Market Watch** WEDNESDAY 9 SEPTEMBER 2020

AFRICA IN BRIEF

MASS HUNGER FEARS IN MOZAMBIQUE
Tens of thousands of people are being deprived of humanitarian aid in northern Mozambique as extremist militants intensify an Islamist insurgency, the UN agency World Food Programme has said.
Jihadists have been waging a violent campaign in the gas-rich Cabo Delgado province since 2017, launching sporadic attacks on towns and villages in a bid to establish a caliphate.
The insurgency has claimed more than 1 500 lives and displaced at least 250 000 - a tenth of the total provincial population.
Lola Castro, the WFP's regional director for Southern Africa, said that of those 250 000 internally displaced, "we are accessing 180 000" - leaving 70 000 people without aid.
Cabo Delgado's insurgency has increasingly hampered humanitarian assistance in the area in recent months, forcing the International Committee for the Red Cross and Doctors Without Borders to suspend operations in the town of Macomia in June.
- Nampa/AFP

NIGERIAN DOCTORS STRIKE OVER PAY, PPE
Nigerian doctors in state-run hospitals began an indefinite strike on Monday over pay, overcrowded facilities and a lack of personal protective equipment, union leaders said.
The industrial action by the National Association of Resident Doctors (NARD), which represents some 40% of doctors, is the latest in a string of stoppages by medics to hit Africa's most populous nation as it struggles to curb the spread of the coronavirus.
There are over 40 000 resident doctors in Nigeria's state-run hospitals. Doctors have long complained of a lack of beds and drugs in hospitals and inadequate protective kits. Sokomba said other demands include life insurance coverage, a pay rise and payment of unsettled wages.
"We have arrears of 2014, 2015, 2016, salary shortfalls that were supposed to have been paid over six years ago, still pending," he said.
- Nampa/AFP

NIGERIA PHOTO NAMPA/REUTERS

BURKINA FASO'S GOLD MINES RAIDED
Jihadists have made US$140 million from attacks on gold mines in Burkina Faso since 2016, according to a report commissioned by the government.
The sector made up 11.4% of economic output in 2018. It accounts for 9 200 direct jobs and 26 100 indirect jobs, while the gold panning sub-sector employs 1.5 million people.
But the industry has also become a welcome source of funding for jihadists and other armed movements in areas lacking in central authority, according to the report's author Ollo Kambou of the Burkina Economic and Social Observatory (OES).
The report estimated the total cost of the attacks in terms of damage to property and wider effects to be 600 billion CFA francs (US$1.1 billion) since 2016, roughly one third of the state's entire revenue.
A spiral of jihadist violence began five years ago in parallel with a gold rush. - Nampa/AFP

MOROCCO LOCKS DOWN CASABLANCA
Morocco imposed a lockdown on Casablanca and shut its schools Monday, the day pupils were due to return to classes, in a bid to stop the spread of Covid-19.
The new measures, which include restrictions on movement and a night-time curfew, would be in place for two weeks in the commercial capital, the authorities said a statement issued late Sunday.
"We risk being overwhelmed by the virus," said health minister Khalid Ait Taleb.
Morocco has seen a spike in coronavirus cases in recent weeks.
It recorded 2 234 new infections on Sunday, a record for a single day, with 42% of them in Casablanca, home to 3.3 million people.
Authorities decided on Monday to close educational institutions including primary, middle and high schools as well as universities.
- Nampa/AFP

SUDAN DECLARES STATE OF EMERGENCY
Sudan on Saturday declared a three-month national state of emergency after record-breaking torrential floods that cost 99 lives.
Floods caused by more than a month of heavy rains have killed 99 people, injured 46 and left 100 000 damaged properties in their wake, one of the worst natural disasters in decades, according to state news agency *SUNA*.
North Darfur in the country's west and Sennar state in the south were among the hardest hit areas.
Heavy rains usually fall in Sudan from June to October, and the country faces severe flooding every year.
"The Blue Nile has reached an all-time high since records began more than a century ago," said the irrigation and water ministry last week.
- Nampa/AFP

ECC

NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS
EXPLORATION ACTIVITIES ON EPL 7699
KHOMAS AND HARDAP REGIONS, NAMIBIA

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

Applicant: Mertens Mining and Trading (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Khomas and Hardap Region, Namibia

Project: Exploration activities on EPL 7699 as well as small-scale mining activities on mining claims 68855 – 68861 and 67633 in the Khomas and Hardap Regions, Namibia.

Proposed activity: The proponent proposes to carry out low impact, non-intrusive exploration activities and small-scale mining activities on EPL 7699 in an area 25km east-southeast of Rehoboth. The largest part of the EPL is located in the Khomas Region but a small portion overlaps with the Hardap Region. Exploration methods may include mapping, soil sampling, electromagnetic surveys, drilling, trenching and bulk sampling, and crushing and trial processing in an on-site pilot 10t/h flotation plant, including on-site power generation by a diesel generator.

Application for environmental clearance certificate: In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Mertens Mining and Trading (Pty) Ltd is required to apply for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.
Purpose of the Review and Registration Period: The purpose of the review and registration period is to introduce the proposed project and to afford Interested and Affected Parties (I&APs) an opportunity to register and comment on the Non-Technical Summary (NTS) and preliminary scoping assessment.

Public participation: The public participation period is effective from **1 September 2020 to 30 September 2020.** Within this period the public is invited to register as an Interested and Affected Party (I&AP) on ECCs website, alternatively send us an email or WhatsApp and we will register you as an I&AP. Once you are registered, we shall provide you with the preliminary scoping study and management plan for your review and commentary. Based on the comments received it will be decided whether a public meeting is required or not (this decision will also be influenced by Covid-19 restrictions).

How you can participate: ECC is undertaking the required environmental assessment and public participation process in terms of the Act. I&APs and stakeholders are required to register for the project at:
http://eccenvironmental.com/projects/

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: http://www.eccenvironmental.com
Project ID: ECC-105-235-ADT-02-B

CAREER OPPORTUNITY

Sun

NAMIBIAN SUN an equal opportunity employer has the following vacancy for a dynamic and energetic person with Namibian Citizenship.

NEWS EDITOR: NAMIBIAN SUN
Paterson Grade C5 | Duty Station: Windhoek

Key Performance Areas
- Responsible for the daily news content of the newspaper
- Produce a comprehensive news diary and assign stories reporting staff
- Keep abreast of national news and important international news
- Coordinate news gathering
- Identify and develop news articles and news themes
- Brief and debrief reporters
- Monitor the progress of articles
- Lead and manage a team of reporters

Interested candidates who qualify for the above position can forward their CV with certified copies of qualifications and relevant documentation to:
The Human Resources Department
E-mail: **vacancies@nmh.com.na**
Please write **"News Editor: Namibian Sun -Paterson Grade: C5"** in the subject line
For further details on job requirements and competencies visit
http://nmh.com.na/vacancies
Only shortlisted candidates will be contacted. No documents will be returned.

Closing date: 17 September 2020 | Interviews: 21 September 2020

Republikein Allgemeine Zeitung Sun WE 247 Express 247

Divisions of NMH NAMIBIA MEDIA HOLDINGS

Coordinating Editor: Jo-Maré Duddy • Tel (061) 297 2073 • E-mail: business7@nmh.com.na | NMH Marketing Manager: Publications: Hennie Geldenhuys • Tel (061) 297 2201 • E-mail: hennie@nmh.com.na | Gen. Murtala Muhammed AVE P.O. BOX 3436, Windhoek Tel: 061 297 2000; Fax: 061 223 721

The following was advertised in the **'Republikein, Sun, and Allgemeine Zeitung'** newspapers on the 16th September 2020.

8 Republikein Sun Allgemeine Zeitung **Market Watch** WEDNESDAY 16 SEPTEMBER 2020

034 **Erwe te koop / Erven for Sale**

8.5 HA PLOT, 10 km outside Okahandja on the Gross Barmen Road. NamPower, Nam-Water, fenced. Great deal at only N$920 000. Call Johan 081-1272927.
DM0202000367368

5 HECTARE PLOT, 30 km east of Windhoek. Beautiful development. Fenced, Namwater and 3-phase Nampower. Absolute bargain from N$1.2 million. Call Johan 081-1272927.
DM0202000367270

5 HECTARE PLOT 30 km east of Windhoek, with brand new house, 194 m². Beautiful, valuation N$3.15 mil. Price N$2.75 mil. Call Johan 081-1272927.
DM0202000367373

AMAZING KINGDOM PROPERTIES CC For sale: Plot of 5 ha situated 8 km before Windhoek International Airport with 3-phase Nampower, Namwater, and fenced. Selling price was N$1.5 million. Now selling at N$1 230 000. Call Cosmos: 081-1295473.
DM0202000368690

035 **Regskennisgewings / Legal Notices**

IN THE High Court of Namibia. Main Division. Case No. HC-MD-CIV-ACT-CON-2020/00713
In the matter between:
BURGERS EQUIPMENT AND SPARES NAMIBIA CC - Execution Creditor and INDEPENDENT TYRES (PTY) LTD T/A ITYRE - 1st Execution Debtor LAURENCE DURANDT - 2nd Execution Debtor.
NOTICE OF SALE IN EXECUTION
TO: THE DEPUTY SHERIFF, WINDHOEK A sale in execution will be held by public auction on Saturday 3 October 2020 at 09H30 at The Deputy Sheriff's Premises, 422 Independence Avenue, Windhoek, Republic of Namibia, during which there will be sold in execution as a result of an attachment made on 4 September 2020 under a Writ of Execution issued on 26 May 2020 by the above named Independent Tyres (Pty)Ltd T/A Ityre and Laurence Durandt (The Execution Debtors).
GOODS:
2x Lifts, 2x couches, desk and 3 chairs, 2x filing units, Dell computers, 3x desks, 3x computers, 3x chairs, 4x filing units.
CONDITIONS OF SALE:
The sale will be held without reserve and goods will be sold to the highest bidder.
The goods will be sold "voetstoots".
Payment shall be made in cash or by bank guaranteed cheque.
Dated at Windhoek on 11 September 2020.
KOEP& PARTNERS
Legal Practitioners for Execution Creditor
33 Schanzen Road
Windhoek
(REF: CV/76172-MAT5679).
DM0202000368658

IN THE Magistrate's Court Windhoek for the District of Windhoek. Held at Windhoek. Case No: 8061/2018.
In the matter between:
FIRST NATIONAL BANK OF NAMIBIA LTD - Plaintiff and LUNZA GETRUDE KAWANA - Defendant.
NOTICE OF SALE IN EXECUTION
In execution of a judgement against the above Defendant granted by the above Clerk of the Court on 30 November 2018, the following will be sold by public auction on 15 October 2020 at 12h00 at Erf 567, Mpacha Road, Katima Break down Services, Katima Mulilo, by the Messenger of Court, Katima Mulilo:
1x TV JVC flat screen, 1x TV-cupboard, 1x lounge suite, 3x fridges, 1x microwave.
Terms of sale: Voetstoots and cash tothe highest bidder.
Dated at Windhoek on 11 August 2020.
DR WEDER KAUTA & HOVEKA INC
C POTGIETER
WKH House
Jan Jonker Road
Windhoek
P9011921.
DM0202000368699

035 **Regskennisgewings / Legal Notices**

IN THE Magistrate's Court For The District Of Tsumeb. Held At Tsumeb. Case No: 142/2020.
In the matter between:
OSHIKOTO REFRIGERATION CC T/A SNOWMAN REFRIGERATION - Plaintiff and OSHIKOTO FRESH FRUIT & VEGETABLES - Defendant.
NOTICE OF SALE IN EXECUTION
Pursuant to a Judgement granted by the above Honorable Court, the following goods will be sold in execution by public auction on Thursday, 1 October 2020 at 15h00 at Erf 1631 Ndilimani Cultural Troupe Street, Tsumeb, Republic Of Namibia, namely:
1x UD truck with Transfrig MT450(N143-724W), 1x Yamaha 4-wheel bike.
Terms: Cash to the highest bidder.
Dated at Tsumeb on 1 September 2020.
Maronel du Plessis Legal PractitionerErf 515, Corner of Sam Nujoma and Ndilimani Cultural Troupe Streets,
Tsumeb
Tel 067 227 694
Fax 067 227 697
(OSH1/0009)
DM0202000368707

MUNCIPALITY OF HENTIES BAY NOTICE: Henties Bay: Sale of Erf 2924 Henties Bay (Ext 12) zoned Residential by way of Private Treaty.
By virtue of Council Resolution C04/05/02/2020/01st/2020 and in terms of Section 63 (2) (b) of the Local Authorities Act (Act 23 of 1992) as amended, read in conjunction with Section 30 (1) (t) of the Local Authorities Act 1992 (Act 23 of 1992) as amended, notice is hereby given that the Municipal Council of Hentiesbaai intends to sell by way of private treaty, a single residential erf, 2924 Hentiesbaai (Ext 12), measures 1068 m² to Mr J.S Brinkman, at a selling price of N$350 p/m² which equates to N$373 800 (Three hundred and seventy three thousand eight hundred Namibian Dollars only) for housing purposes.
Further take note that the locality and the layout plan of the property lies open for inspection during office hours at the offices of the Municipal Council situated at the corner of Jakkalsputz Road and Nickey Iyambo Avenue.
Any person(s) having objection(s) to the intended lease of the property may lodge such objection (s) fully motivated thereof to the undersigned, within fourteen (14) days after the second placement of the advert.
THE CHIEF EXECUTIVE OFFICER
PO Box 61
Henties Bay.
DM0202000368236

035 **Regskennisgewings / Legal Notices**

REZONING NOTICE DUNAMIS CONSULTING TOWN, REGIONAL PLANNERS AND DEVELOPERS on behalf of the owner of Erf 2526 Delius Street No. 4 Windhoek intends to apply to the Windhoek Municipal Council for the following:
Rezoning of Erf 2526 Delius Street No. 4, Windhoek from 'General Residential' with a density of 1:150 to 'Office' with a bulk of 0.75.
Consent to commence with the construction of the office development on Erf 2526 Windhoek with the interim bulk of 0.4 while the Windhoek Spatial Development Framework Study and the rezoning are finalized.
Erf 2526 Windhoek is located in Delius Street. The property is currently zoned 'General Residential' with a density of 1:150 and measures 902 m².
The new zoning of office with a bulk of 0.75 will enable the owner to use the Erf solely for office purposes. On-site parking as required in terms of the Windhoek Town Planning Scheme and proposed activities will be provided.
Further, take note that the locality plan of the Erf can be inspected at the Windhoek Town Council Customer Care Centre Town Planning Notice Board, 80 Independence Avenue, Windhoek.
Further take note that any person objecting to the proposed land use as set out above may lodge such objection together with the grounds thereof in Writing at the Windhoek Urban Planning Offices Room 518, 5th Floor, Town House Main Building within 14 days of the last publication of this notice (final date for objections is October 13, 2020).
Cell: +264 855 512 173
E-mail: ndimuhona@dunamisplan.com
DM0202000368704

LOSING CONTROL?
AA
ALCOHOLICS ANONYMOUS NAMIBIA
If you want to drink, that's your business. If you want to stop, that's ours.
WINDHOEK: 081-325 8144
SWAKOPMUND: 081 243 2649
E-MAIL: alcoholicsanonymousna@gmail.com

AL-ANON
Help for relatives of Alcoholics
AL-ANON Family groups offer help for friends and relatives of alcoholics. They provide assistance for people who live with alcoholics.
Mail: vollmerdj@telecom.na
Dawnnam@gmail.com
Cell: 081 256 6229
VENUE: cnr Lüderitz and Kasino Streets
DATE AND TIME: Thursdays at 19H00
AL-ANON

ECC ENVIRONMENTAL

NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS
EXPLORATION ACTIVITIES ON EPL 7699
KHOMAS AND HARDAP REGIONS, NAMIBIA

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How you can participate: ECC is undertaking the required environmental assessment and public participation process in terms of the Act. I&APs and stakeholders are required to register for the project at:
https://eccenvironmental.com/projects/

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: http://www.eccenvironmental.com
Project ID: ECC-105-235-ADT-02-B

CAREER OPPORTUNITY

NMH gewährleistet als Arbeitgeber die Chancengleichheit und schreibt hiermit die folgende Stelle zur Besetzung durch eine dynamische und tatkräftige Person mit namibischer Staatsbürgerschaft aus.

SENIOR-REDAKTEUR: ALLGEMEINE ZEITUNG
Paterson-Grad: C4

Zentrale Leistungsbereiche
- Leitung und Beaufsichtigung der Berichte eines Journalistenteams
- Behilflich bei der Entwicklung sowie der Berufsbildung von Junioren
- Geteilte Verantwortung für Inhalt, Layout und Produktion der Zeitung
- Recherche und Schreiben analytischer Nachrichten und Leitartikel

Interessierte Kandidaten, die sich für die obengenannte Stelle qualifizieren, können ihren Lebenslauf zusammen mit einem obligatorischen Begleitschreiben sowie beglaubigten Kopien der Qualifikationen und anderer relevanter Unterlagen wie folgt übermitteln:
E-Mail an die Personalabteilung: vacancies@nmh.com.na
Bitte fügen Sie „Senior-Redakteur: Allgemeine Zeitung – Paterson-Grad: C4" als Betreffzeile ein.
Für weitere Informationen bezüglich der Stellenbeschreibung lesen Sie bitte auf der folgenden Internetseite nach: http://nmh.com.na/vacancies

Bewerbungsschluss: 18. September 2020
Interviews: 22. September 2020

Republikein Allgemeine Zeitung Sun WE 247 Grupo 247
Divisions of NAMIBIA MEDIA HOLDINGS

CAREER OPPORTUNITY

NAMIBIAN SUN an equal opportunity employer has the following vacancy for a dynamic and energetic person with Namibian Citizenship.

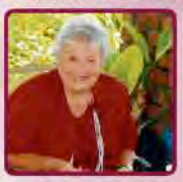
NEWS EDITOR: NAMIBIAN SUN
Paterson Grade C5 | Duty Station: Windhoek

Key Performance Areas
- Responsible for the daily news content of the newspaper
- Produce a comprehensive news diary and assign stories reporting staff
- Keep abreast of national news and important international news
- Coordinate news gathering
- Identify and develop news articles and news themes
- Brief and debrief reporters
- Monitor the progress of articles
- Lead and manage a team of reporters

Interested candidates who qualify for the above position can forward their CV with certified copies of qualifications and relevant documentation to:
The Human Resources Department
E-mail: **vacancies@nmh.com.na**
Please write **"News Editor: Namibian Sun -Paterson Grade: C5"** in the subject line
For further details on job requirements and competencies visit
http://nmh.com.na/vacancies
Only shortlisted candidates will be contacted. No documents will be returned.

Closing date: 17 September 2020 | Interviews: 21 September 2020

Republikein Allgemeine Zeitung Sun WE 247 Grupo 247
Divisions of NAMIBIA MEDIA HOLDINGS

Wishing you God's richest blessings on your 80th birthday
Teresa Smit

From your loving husband Jannie, Michael, Ulrike and family, Hilly, Vik and family

TE KOOP
Skoon rolle wit koerantpapier vir vele gebruike
•Paneelkloppers
• Nywerhede
• Restaurante
•Skole
•Verpakkingsmateriaal
per kg
Prys op aanvraag
SKAKEL CHANTEL: 330 502
2 - 4 EIDERSTRAAT, LAFRENZ INDUSTRIEEL

APPENDIX C.2 SITE NOTICE, LETTERS AND REGISTRATION FORM

NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS EXPLORATION ACTIVITIES ON EPL 7699

KHOMAS AND HARDAP REGIONS, NAMIBIA

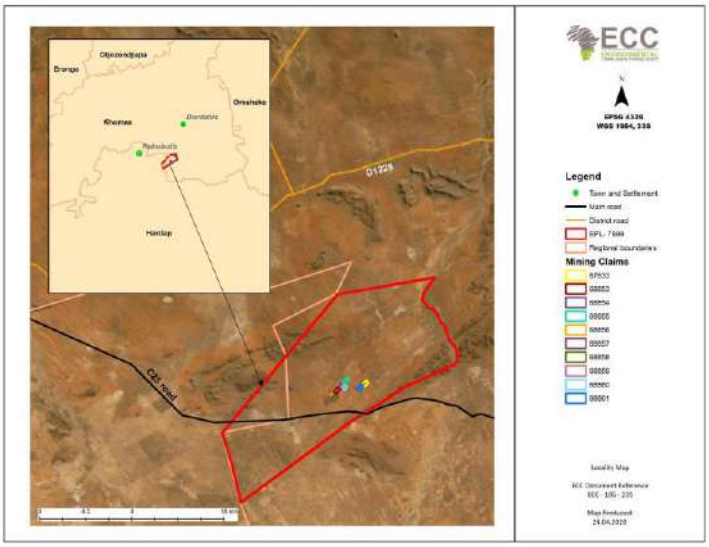
Environmental Compliance Consultancy cc (ECC) hereby gives notice to the public that an application for an Environmental Clearance Certificate in accordance with the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant:	**Mertens Mining and Trading (Pty) Ltd**
Environmental Assessment Practitioner (EAP):	**Environmental Compliance Consultancy**
Project ID:	**ECC-105-235**

Project: Exploration activities on EPL 7699 as well as exploration and small-scale mining activities on mining claims 68855 – 68661 and 67633 in the Khomas and Hardap Regions, Namibia.

Proposed activity: The proponent proposes to carry out low impact, non-intrusive exploration activities on EPL 7699 as well as exploration and small-scale mining activities on mining claims 68855 – 68661 and 67633 in the Khomas and Hardap Regions, Namibia. The EPL is located 25km southeast of Rehoboth. Exploration methods may include mapping, soil sampling, electromagnetic surveys, drilling, trenching and bulk sampling, and crushing and trial processing in an on-site pilot 10t/h flotation plant, including on-site power generation by a diesel generator.

Location of EPL 7699:



Application for environmental clearance certificate: In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of the proponent is required to submit an application for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

Purpose of the Review and Registration Period: The purpose of the review and registration period is to introduce the proposed project and to afford Interested and Affected Parties (I&APs) an opportunity to register and comment on the Non-Technical Summary (NTS) and to ensure that potential issues and concerns are brought forward, captured and considered further in the assessment process.

Public participation: The public participation period is effective from **1 September 2020 to 30 September 2020**. Within this period the public is invited to register as an Interested and Affected Party (I&AP) on ECCs website, alternatively send us an email or WhatsApp and we will register you as an I&AP. Once you are registered, we shall provide you with the preliminary scoping study and management plan for your review and commentary. Based on the comments received it will be decided whether a public meeting is required or not (this decision will also be influenced by Covid-19 restrictions).

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

ECC

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

REFERENCE: ECC-105-235-LET-05-A
29th September 2020

Identified Stakeholder and or Potentially Interested Party for:
Exploration activities on EPL 7699

Dear Sir or Madam:

RE: NOTIFICATION OF ENVIRONMENTAL ASSESSMENT FOR EXPLORATION ACTIVITIES ON EPL 7699, INCLUDING THE EXPLORATION AND SMALL-SCALE MINING ACTIVITIES ON MINING CLAIMS 68855 – 68861 AND 67633.

Environmental Compliance Consultancy (ECC) has been engaged by Mertens Mining and Trading (Pty) Ltd, the Proponent, to act on their behalf for the application of an environmental clearance certificate for the proposed exploration activities on EPL 7699. The largest part of the EPL is located in the Khomas Region, but a small part of the EPL overlaps with the Hardap Region. The exact location of the project is visible on the map hereto attached.

ECC is conducting the Environmental Impact Assessment (EIA) in terms of the Environmental Management Act, No. 7 of 2007 and will be submitted to the competent authority and the Ministry of Environment, Forestry and Tourism for a record of decision.

The proposed project is to conduct mineral exploration activities only on EPL 7699. As part of the exploration program the following activities are envisaged, which shall be confirmed, as the exploration program is refined:

- Potential creation of access tracks, where existing tracks are not available;
- Limited vegetation clearing for the creating of access routes and exploration activities;
- Exploration methods may include mapping, soil sampling, electromagnetic surveys, and may evolve into drilling, trenching and bulk sampling if necessary,
- Crushing and trial processing in an on-site pilot 10t/h flotation plant, and
- On-site power generation by a diesel generator.

This letter is intended to engage stakeholders and potentially Interested and Affected Parties (I&APs) of the project and provide a communication channel to ECC for the project. You have been

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

identified as either a stakeholder, interested or affected party, therefore ECC wishes to inform you of how you can become involved in the project.

Public participation is an important part of the EIA process, as it allows the public and stakeholders to obtain information about the proposed project. Public participation occurs at various stages throughout a project lifecycle including:

- Advertising in newspapers;
- Distributing a Non-Technical Summary (NTS) to identified stakeholders and I&APs;
- Registered I&APs will also be informed of the available draft scoping report for a 14-day comment and review period, during this period I&APs will have the opportunity to review the draft document and raise any issues or concerns, and
- Stakeholders and I&APs who wish to register as an I&AP must do so on the ECC website as per the link provided below: https://eccenvironmental.com/projects/

If you are unable to complete the registration form online please email info@eccenvironmental.com and request an electronic copy of the form that you can complete, sign, scan and return via email to info@eccenvironmental.com to register as an I&AP for the project.

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

The NTS can also be obtained from our website and provides a brief overview of the proposed project https://eccenvironmental.com/projects/

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

Yours sincerely,

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

Jessica Bezuidenhout Mooney
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: jessica@eccenvironmental.com

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

LIST OF REGISTERED ITEMS POSTED

Enviromental Compliance Consultancy
P.O.Box 91193
by Klein Windhoek +264816697608
Mertens

NAMPOST

Sender's reference no.	Addressee's name and address	Registration no.
1	Farm Versailles P/Bag 13343 Windhoek	RR 013 752 091 NA
2	Farm Atsigas-Noord PO Box 508 Behoboth	RR 013 752 105 NA
3	Fam Wiese PO Box 80627 Windhoek	RR 013 752 114 NA
4	Farm Kartatscus POBox 548 Behoboth	RR 013 752 128 NA
5	Farm Mertens PO Box 4505 Windhoek	RR 013 752 131 NA
6	Fam Kous PO Box 21112 Windhoek	RR 013 752 145 NA
7	Fam Ganeib PO Box 80823 Windhoek	RR 013 752 159 NA
8	Farm Strife PO Box 90782 Klein Windhoek, Namibia	RR 013 752 162 NA
9	Farm Atsigas PO Box 4052 Behoboth	RR 013 752 176 NA
10	Farm Gravenstein PO Box 2873 Behoboth	RR 013 752 180 NA
11	Farm strife PO Box 1189 Windhoek	RR 013 752 193 NA
12	Farm Ganeib PO Box 20758 Windhoek	RR 013 752 202 NA

studio print 13647

Date-stamp

KLEIN WINDHOEK 20.10.19

Number of items 12 Received by

No compensation will be considered unless enquiry regarding this postal article is made within one year after the date of posting.

P1 / 185

COPY

E.D Received
15 OCT 2020

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

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

OFFICE OF THE OMBUDSMAN
Stamped Received By:
15 OCT 2020
Office of the Ombudsman:
PRIVATE BAG 13211, WINDHOEK
CNR OF FELD & LOSSEN STREETS
TEL: 061-207 226838

Ministry of Health and Social Services:

Ministry of Mines and Energy:

RECEIVED
2020 -10- 15

Ministry of Environment & Tourism
DAFHR
2020 -10- 15
The Chairperson
Tel: 061 - 284 2180
Fax: 061 - 229936
Procurement Committee

Ministry of Labour, Industrial Relations and Employment Creation:

MINISTRY OF MINES AND ENERGY
MINING COMMISSIONER
2020 -10- 15
MC
Private Bag 13297
9000 WINDHOEK
OFFICIAL

Ministry of Environment, Forestry and Tourism:

Engling, Stritter and Partners:

RECEIVED
15 OCT 2020
OFFICE OF THE LABOUR COMMISSIONER

REFERENCE: ECC-105-235-LET-11-A
14th October 2020

ENGLING STRITTER & PARTNERS
12 LOVE STREET
P.O. BOX 43, WINDHOEK
15/10/2020

Urban Green CC
PO Box 11929
Klein Windhoek
Namibia

RE: RESPONSE IN RELATION TO EXPLORATION ACTIVITIES ON EPL 7699 (MERTENS MINE)

Dear Brand van Zyl,

Your communication dated 30 September and 13 October hereto attached refers.

Please note that Environmental Compliance Consultancy (ECC) conducts Environmental Impact Assessment (EIA) in accordance with Namibian laws and best practice guidelines.

In line with these guidelines ECC seeks genuine input from stakeholders at the earliest stage in an EIA process. As such, ECC advertises a registration period that promotes the opportunity for I&APs to register their interest in a project. These adverts were placed in national newspapers over two consecutive weeks.

This is the first stage of the public participation process. Thereafter we communicate project specific details to the registered I&APs. We also notify registered I&APS of documents available for review

ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY

1903

etc. Thus far, we have only called for people to register their interest, and to review the non-technical summary (also known as a BID) in order for us to compile a database of I&APS for the project. The non-technical summary is freely available on our website and is available for anyone to download, we also email this to I&APs upon registration.

We note the concerns you have raised in your letters; however, these are null and void as the process has only commenced, in that we are calling for people to register their interests. All documents once available will be provided to registered I&APs for their review in line with the required timelines as stipulated by the Act.

In line with best practice guidelines for conducting EIAs, we seek to understand the concerns and issues of the I&APs in order to ensure that these are addressed through the impact assessment process.

We welcome your genuine participation and involvement in this process. As with all registered I&APs you will be informed of details pertaining to the EIA, and the EIA process as it develops.

An invitation for a public meeting to be held in Windhoek on Thursday 29th October at 5:30pm will be circulated to all I&APs (venue to be confirmed).

We thank you for your enthusiasm and commitment to be involved in the process.

Kind regards,

Yours sincerely,

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

Jessica Bezuidenhout Mooney
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: jessica@eccenvironmental.com

CC
Office of the Ombudsman- The Deputy Director of the Investigations Division Mr T. Shangadi
Ministry of Mines and Energy - The Mining Commissioner Mr E Shivolo
Ministry of Environment, Forestry and Tourism - The Executive Director Mr Teofilus Nghitila
Ministry of Health and Social Services - The Executive Director Mr B Nangombe
Ministry of Labour, Industrial Relations and Employment Creation - The Labour Commissioner Mr H Kassen
Engling, Stritter and Partners - Mr A Stritter

ENVIRONMENTAL COMPLIANCE CONSULTANCY
CC/2013/11404
14 OCT 2020
ENVIRONMENTAL
COMPLIANCE CONSULTANCY
www.eccenvironmental.com

URBAN Green cc
Sustainability Consultants

30 September 2020

Environmental Compliance Consultancy
PO Box 91193
Klein Windhoek
Windhoek

Attention: Mr. JS Bezuidenhout

RE: EXPLORATION ACTIVITIES ON EPL 7699 (MERTENS MINE)

This communication serves to inform your office that Urban Green cc has been appointed by the affected community to advise and act on their behalf. Please register Urban Green cc as an Interested and Affected Party.

As you are well aware of, the neighbouring farm owners and surrounding community **are very concerned about the (i) current state of the mine and resulting social and environmental impacts, and (ii) future social and environmental impacts.** The neighbouring farm owners and surrounding community are accordingly **strongly objecting to the proposed exploration activities.** Find attached to this communication, as Appendix A, the list of Interested and Affected Parties.

The community would like to state that **ALL CONCERNS RAISED AND SUBMITTED** as part of the previous EIA to the authorities (Office of the Environmental Commissioner; Office of the Ombudsman; The Mining Commissioner, Ministry of Mines and Energy; Ministry of Health and Social Services; and Ministry of Labour, Industrial Relations and Employment Creation) **are still valid and unresolved to date**. Find attached to this communication a copy of a report that was submitted to the office of the Environmental Commissioner which, apart from other information, lists the concerns raised by the neighbouring farm owners and surrounding community (Appendix D).

Based on the feedback received from the neighbouring farm owners, **no one was informed by your office of the environmental study and requested to register and submit comments** as required by section 21(b)i, which states *'giving written notice to the owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site'*. Considering the previous study and the availability of the contact details of the affected neighbouring farm owners and surrounding community members to your office, **there is no reason why these parties should not and could not be consulted directly in writing.**

Please provide our office with proof that your office consulted in writing with the (i) *'owners and occupiers of the land adjacent to the site'*, (ii) *'the local authority council,*

Telephone: +264-61-300 820
Fax: +264-61-401 294
Cell.: +264-81-129 5759
E-mail: urbangreen@iway.na
Website: www.urbangreenafrica.net

GREEN BUILDING COUNCIL
MEMBER ORGANISATION

P O Box 11929
Klein Windhoek
Namibia

No. 19 Elysium Field Complex,
No. 40, Berg Street, Klein Windoek,

regional council and traditional authority within which the site is situated', and (iii) *'the other organs of state having jurisdiction'* as part of the public consultation process.

The lack of information on the proposed activity makes it impossible for any of the neighbouring owners to submit comments, as requested in the newspaper notice dated 16 September 2020. Please provide our office with a Background Information Document, which we will distribute to the various neighbouring property owners for discussion and comment.

In light of the fact that none of the neighbouring farm owners were informed in writing of the environmental study or requested to register and submit comments, <u>another 21 days for public consultation should be allowed within which time the</u> neighbouring farm owners and surrounding community will submit their comment and/or concerns formally to your office.

Considering the concerns and strong objection from the side of the neighbouring farm owners and surrounding community **<u>and lack of information from your side and that of the Proponent, a public meeting is requested whereby a presentation of the proposed activities should be done to all Interested and Affected Parties and comment can be given by the</u>** neighbouring farm owners and surrounding community.

It is also requested that a site meeting be undertaken, which should be attended by your office as the environmental consultant and the proponent, which purpose would be to highlight and discuss the irregularities currently on-site. **These matters have been raised in the past with no avail or action from the side of your client.**

As raised by the community and documented (documents submitted to the authorities dated 15 October 2019), the site holds potential **<u>safety-, health- and environmental risk to neighbouring property owners, as well as the natural environment</u>**, which should be investigated. As discussed and agreed by the proponent at the meeting dated 13 March 2020, a detailed investigation would have been undertaken by a competent and independent person/company, who would have investigated the concerns raised by the community and proposed suitable solutions in line with applicable legislation. **To date this has not been done as promised by the proponent.**

It is important to state that the affected neighbouring farm owners and surrounding community are by no means opposing sustainable socio-economic development within the area (on the contrary), BUT ARE STRONGLY OPPOSING DEVELOPMENTS WHICH HAVE NO INTEREST IN THE LONG TERM WELL BEING OF THE AFFECTED COMMUNITY, AND ONLY SERVE THE FINANCIAL INTEREST OF THE PROPONENT TO THE DETRIMENT OF THE AFFECTED COMMUNITY.

The dubious manner in which the previous environmental assessment was conducted, Mertens Mining and Trading (PTY) Ltd's lack of urgency to rehabilitate the current site

and past empty promises unfortunately leaves the affected neighbouring farm owners and surrounding community with uncertainty, a number of questions and no trust in their real long term plans with respect to Mertens Mine.

We trust that the concerns and requests of the affected neighbouring farm owners and surrounding community will be addressed in the interest of a transparent and objective environmental assessment to the long term sustainable benefit of the affected parties.

Should your office require any further information and/or assistance, please do not hesitate to contact us.

Yours faithfully,

Brand van Zyl
On Behalf of the Concerned Community

cc

Office of the Ombudsman	The Deputy Director of the Investigations Division: Mr T. Shangadi
Ministry of Mines and Energy	The Mining Commissioner: Mr E. Shivolo
Ministry of Health and Social Services	The Executive Director: Mr B. Nangombe
Ministry of Labour, Industrial Relations and Employment Creation	The Labour Commissioner: Mr H. Kassen
Engling, Stritter & Partners	Mr. A. Stritter

URBAN Green cc
Sustainability Consultants

13 October 2020

Environmental Compliance Consultancy
PO Box 91193
Klein Windhoek
Windhoek

Attention: Mr. JS Bezuidenhout

RE: EXPLORATION ACTIVITIES ON EPL 7699 (MERTENS MINE)

Our previous communication dated 30 September 2020 with respect to the above refers.

Since our submission dated 30 September 2020 receipt by your office on the same day (see attached) NO correspondence or any information was received from your office.

Your decision not to provide our office with information makes it impossible for our office and the affected community to provide comment/s on your call for comment.

AS PREVIOUSLY REQUESTED –

Please provide our office with proof that your office consulted in writing with the (i) *'owners and occupiers of the land adjacent to the site'*, (ii) *'the local authority council, regional council and traditional authority within which the site is situated'*, and (iii) *'the other organs of state having jurisdiction'* as part of the public consultation process.

Please provide our office with a Background Information Document, which we will distribute to the various neighbouring property owners for discussion and comment.

IN LIGHT OF THE FACT THAT NONE OF THE NEIGHBOURING FARM OWNERS WERE INFORMED IN WRITING OF THE ENVIRONMENTAL STUDY OR REQUESTED TO REGISTER AND SUBMIT COMMENTS, A PERIOD OF 21 DAYS FOR PUBLIC CONSULTATION SHOULD BE ALLOWED FROM THE DATE THAT YOUR OFFICE SUBMIT TO OUR OFFICE THE REQUESTED BACKGROUND INFORMATION DOCUMENT. THE NEIGHBOURING FARM OWNERS AND SURROUNDING COMMUNITY WILL SUBMIT THEIR COMMENT AND/OR CONCERNS FORMALLY TO YOUR OFFICE.

As previously stated, considering the concerns and strong objection from the side of the neighbouring farm owners and surrounding community **and lack of information from your side and that of the Proponent, a public meeting is requested whereby a presentation of the proposed activities should be done to all Interested and**

Telephone: +264-61-300 820
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Cell.: +264-81-129 5759
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Website: www.urbangreenafrica.net

GREEN BUILDING COUNCIL
MEMBER ORGANISATION

P O Box 11929
Klein Windhoek
Namibia

No. 19 Elysium Field Complex,
No. 40, Berg Street, Klein Windoek,

Affected Parties and comment can be given by the neighbouring farm owners and surrounding community. **PLEASE LET US KNOW OF THE DATE AND VENUE OF THIS PUBLIC MEETING.**

It is also requested that a site meeting be undertaken, which should be attended by your office as the environmental consultant and the proponent, which purpose would be to highlight and discuss the irregularities currently on-site. **These matters have been raised in the past with no avail or action from the side of your client.**

We trust that the concerns and requests of the affected neighbouring farm owners and surrounding community will be addressed in the interest of a transparent and objective environmental assessment to the long term sustainable benefit of the affected parties.

Should your office require any further information and/or assistance, please do not hesitate to contact us.

Yours faithfully,

Brand van Zyl
On Behalf of the Concerned Community

cc

Office of the Ombudsman	The Deputy Director of the Investigations Division: Mr T. Shangadi
Ministry of Mines and Energy	The Mining Commissioner: Mr E. Shivolo
Ministry of Health and Social Services	The Executive Director: Mr B. Nangombe
Ministry of Labour, Industrial Relations and Employment Creation	The Labour Commissioner: Mr H. Kassen
Engling, Stritter & Partners	Mr. A. Stritter

INTERESTED AND AFFECTED PARTIES REGISTRATION FORM

PROJECT DETAILS

ECC Project Reference: ECC - 105 - 235 Mertens Mining and Trading

Project Title: Exploration Activities on EPL 7699 including the exploration and small-scale mining activities on Mining Claims 68855 – 68661 and 67633

Applicant: Mertens Mining and Trading (Pty) Ltd

This form serves to register Interested and Affected Parties (I&AP's) for the above-mentioned project(s) and to solicit input and participation. This form will be submitted to the competent authority for consideration in the decision-making process.

INTERESTED AND AFFECTED PARTIES (I&AP) DETAILS	
Title (Mr/Mrs/Dr/Prof.):	
First Name:	
Surname:	
Cell Phone:	
Telephone other:	
Email Address:	
Postal Address:	
Organisation and/or property description (if landowner/lawful occupier)	
Stakeholder Group *(please tick)*	☐ **Member of Affected Community** ☐ **Non-Governmental Organisation (NGO)** ☐ **Provincial or Government Official** ☐ **Local or District Official**
GENERAL INTEREST IN THE PROJECT	
Please describe the nature of your interest in this project.	

INTERESTED AND AFFECTED PARTIES REGISTRATION FORM

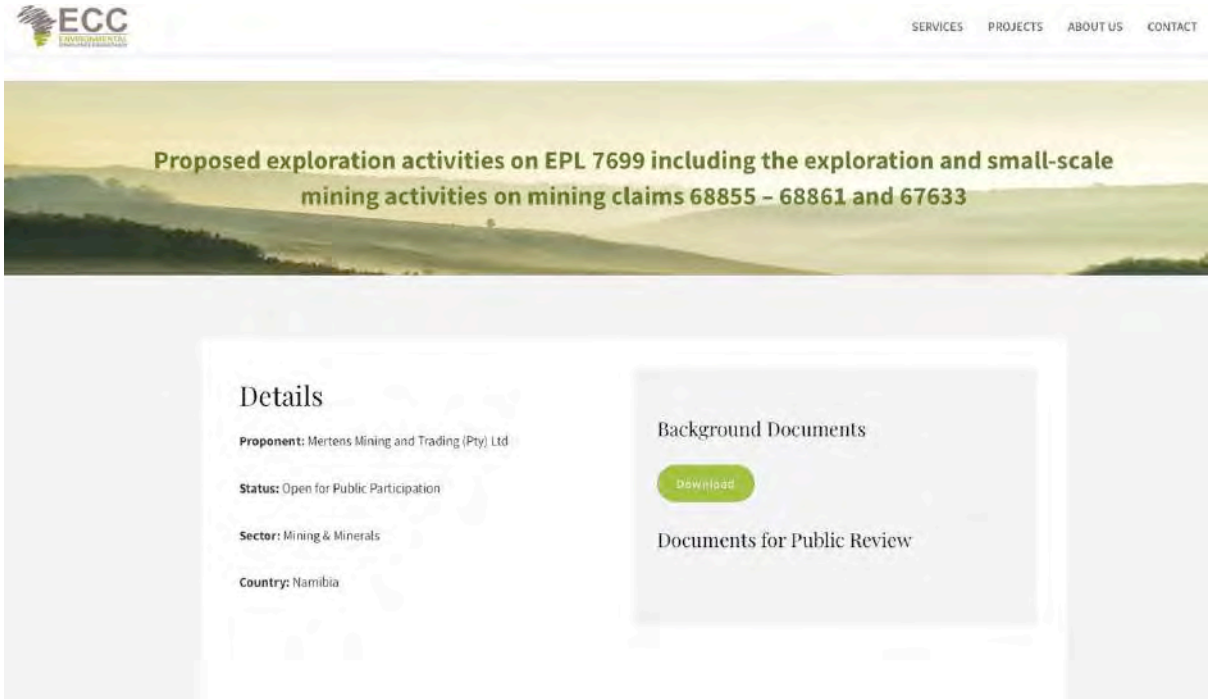
GENERAL INTEREST IN THE PROJECT	
Do you have any specific concerns associated with the Project (for example: water, soil, pollution) Cultural or historical?	
If you know of anyone else who should be informed about the project, please provide their contact details:	
Title (Mr/Mrs/Dr/Prof.):	
First Name:	
Surname:	
Cell Phone:	
Telephone other:	
Email Address:	
Postal Address:	
Organisation and/or property description (if landowner/lawful occupier)	

ECC respectfully requests that you please sign this letter and return it to info@eccenvironmental.com to confirm that you have received notification with regard to the above, and to ensure that your comments, concerns or objections are recorded. All comments, queries, and concerns must be received via this I&AP registration form and questionnaire or alternate means. Please note that only registered I&AP's will included in future correspondence regarding this process.

Signed..... Name..... Date.....

Environmental Compliance Consultancy website:

www.eccenvironmental.com



APPENDIX C.3

LOG OF ALL COMMENTS AND RESPONSES GENERATED THROUGH PUBLIC MEETING

+264 81 669 7608

info@eccenvironmental.com

www.eccenvironmental.com

PROJECT: 235, EPL 7699, Mertens Mining

JOB NO:

CONVERSATION WITH: Project I&APs

PERSONAL INTERVIEW: ☒

COMPANY: Mertens Mining

PHONE CONVERSATION: ☐

ECC REP: Jessica Bezuidenhout & Stephan Bezuidenhout

TELEPHONE NUMBER:

PERSONS PRESENT: Stephan Bezuidenhout, Jessica Bezuidenhout, Mariska Kuschke, Laina Wilhelm, Andre' Neethling, Irma Neethling, Brand van Zyl and other I&APs attendance register attached.

DATE: 29/10/2020 **TIME:** 10h00

SUBJECT: EPL 7699

COPY TO: Attendees

Details of interview/conversation	Action by Whom	Action By Date
1. Public Participation Meeting with Andre' Neethling and I&APs 2. 10:00 – 13:00, Friday the 29th of October 2020, at Suiderhof Dutch Reformed Church 3. **Present for ECC**: Jessica Bezuidenhout, Stephan Bezuidenhout, Laina Wilhelm and Mariska Kuschke **Present for Mertens Mining**: Andre' Neethling 4. JB: Welcoming and explanation of importance of public participation process. Introduction of all present individuals and commencement of presentation. Explanation of Environmental Impact Assessment and guidelines. Public opinion is important to understand long term environmental and social impacts. 5. H.J.Bohme: In the past, guidelines were not adhered to. Research was not done, and the trenches are already a disaster. EIA's have been copied and pasted. The area has Ludwig's Bustards (birds) that have been research over many years. They're behaviour is correlated to rain patterns and we have a nest box project running with them. We have studied them for 15 years and can only start to understand the patterns now. They are a vulnerable species that is now being disturbed. Over 12 000 birds have already been ringed. 6. R.Bader: What is current state of mine? Main road		

was flooded, water ran to water spillage. Worried about groundwater quality. Will share pictures taken of event. 7. B.v.Zyl: Activities at the mine are on and off and on and off. Will the underground flow be assessed? Information on rehabilitation plans are needed. Why has nothing happened in terms of rehab? What was Piet's (ECC mine closure specialist) impression of the site? 8. JB: We currently have the same questions about groundwater, and further research is needed to determine this. 9. RB: There is a lot of corrosion 10. JB: Corrosion is typical for copper mines and this should be addressed in the mine closure plan. 11. J.Smith: Gravenstein is a sensitive area. The birds are leaving, and we need to determine why. The water flows from North to South and the salty water is not drinkable. In the past, miners left a mine as is and go. 12. RB: How much groundwater is needed/used? 13. AN: Ask for answers from me, do not assume things you hear elsewhere is true. There will be 15 people at most coming into the area, and first exploring will be done. 14. JB: 1 out of 1000 EPL's become mines. Drill sampling, research and mapping during validity of EPL. 15. BvZ: Different EIA done if EPL converted into mining license. 16. AN: When we started in 2007, went straight to Kurt and personally introduced myself and project. We took photos of then current state. We cleaned the previous mine that was left there and followed the process according to guidelines. Holes must not only be closed; studies must be done first in order to correctly and safely close. This is why a mine is not closed immediately after activity ceases. In the meantime, the public only sees the holes. 17. JB: Mine closure framework is developed based on what you agree to live with at the end of the day. Rehabilitation will be what you are left with. Closure objectives must be agreed upon.	Renate Bader	

18. BvZ: Will closure also take place if EPL doesn't develop into a mining claim? And what are the guidelines for how long a mine can stay in its current state? 19. JB: Yes, closure will still take place. An EPL is valid for 3 years. It can then be renewed for another 3 years and then another 2 years. A mining claim is valid for 3 years and after that can be renewed every 2 years. In that case it can stay there provided it is safe and non-polluting. 20. AN: A sample B quality water was recorded and provided 21. RB: Is that possible, as before it was C quality? 22. JB: It is. 23. J.Traut: I'm am concerned about the socio-economic affect this will have. Tourism will be affected, and anti-poaching units will need to be upgraded i.e. income will decrease, and expenses will increase. 24. AN: Has EIA for your conservation been done, as these concerns must be included? 25. JB: We have ample understanding of poaching concern, as we have worked on other projects where this concerns is addressed. Closure includes positives such as infrastructure agreed upon. 26. I.Neethling: We have been in your shoes, and I can testify that there can be a lot of positives. Recently, we for example, had a huge fire on our farm and all the workers from the mine jumped in to help fight it with their equipment. 27. AN: We truly can help each other if we approach this with positive attitudes. 28. D.Heinrich: Look at what has happened in the past. It has been bad news. Damage can be minimized, but water and soil can't be cleaned. 29. JB: Baseline still needs to be determined. Baseline is what we are currently dealing with. Water can actually be cleaned through certain processes, years down the line. 30. RB: Consolidation of mining claims? 31. AN: There are 10 mining claims. Will drill and assess how to proceed. Then whole new process for a Mining License (ML). It is usually a minimum of 10		

years before mining happens. 32. JB: Clarification needed for difference between mining claims and EPL's. Small scale mining can go ahead on MC but on EPL only exploration can be done. 33. JT: What about the noise factor? 34. JB: There are rules about the location, working hours. If noise proves to be an issue, noise attenuation can be placed if needed. 35. AN: How things happened in the past is not allowed anymore. 36. JB: Many checks are put into place to hold our clients to their word. 37. Uhlenhorst rep: What is the limit for bulk sampling? 38. JB: Will get back to you on that. The proponent do have to report their amounts to MME every quarter. 39. RB: Remuneration must be agreed prior to activities 40. JB: Act 92, section 52 41. AN: Bulk sampling done for 6 months, probably 2 trucks per month for this phase. 42. U rep: After the EIA, if the mine is sold, does another EIA need to take pace? 43. JB: It does not need to be done again. The responsibility is then the government's to enforce guidelines. 44. BvZ: Anything negative can be communicated to consultant 45. AN: Let's agree to keep communication open 46. U rep: Is your intention to mine or to sell? 47. AN Cannot answer that yet, first will see what the potential is during exploration. If I decide to sell, it will be discussed with I&APs. 48. JB: Concludes meeting, hands out contact details.		

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ENVIRONMENTAL
COMPLIANCE CONSULTANCY

Meeting Attendance Register

Date: 29/10/2020

Meeting Subject: - EPL 7699

Venue: Suiderhof DRC

	NAME	ORGANIZATION	EMAIL ADDRESS	CONTACT NUMBER	SIGNATURE
1	Renate Bader	Affected Party	bader@iway.na	081 294 2882	RBader
2	Brand van Zyl	Consultant	urbangreen@iway.na	081 129 5759	[illegible]
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4	IRMA & ANDRÉ NEETHLING	MERTENS	baasco@afol.com.na	0811228502	[illegible]
5	KURT X2	MERTENS	"	0816585722	[illegible]
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7	Jamy Traut	" "	jamytraut@gmail.com	0811473816	[illegible]
8	Dirk Heinrich	Affected party	dirkuheinrich@gmail.com	0811270259	[illegible]
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ENVIRONMENTAL
COMPLIANCE CONSULTANCY

Meeting Attendance Register

Date: 29/10/2020

Meeting Subject: - EPL 7699

Venue: Suiderhof DRC

	NAME	ORGANIZATION	EMAIL ADDRESS	CONTACT NUMBER	SIGNATURE
1	Laina Wilhelm	ECC	laina@eccenvironmental.com	0814382391	
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3	Mariska Luschke	ECC	mariska@eccenvironmental.com	081 486 2066	
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5					
6					
7					
8					
9					
10					
11					

FARM NAME	TITLE	SURNAME	FIRST NAME	ADDRESS	EMAIL	PHONE
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Hardap Region	Mr	Chief Regional Officer. Mr. Julian Engelbrecht Acting	Hardap Regional Council	P.O. Box 2017, Mariental	yboois@hardapc.gov.na OR tbasson@hardaprc.gov.na	+264 63 245 831
Khomas Region	Mr	Mr Clement Mafwila	Khomas Regional Council		cmafwila@khomasrc.gov.na	
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Versailles		Heinz	GRN	P/Bag 13343 Windhoek		
Ganeib-suid		Ganeib Farming CC	Garieb Farming CC	P O Box 3038 Windhoek		
Rooiwal-oos		Eberenz	Estie	P O Box 2126 Ngwese, Katima Mulilo		
Heide-oos		Kinnear	John Ernest	P O Box 3273 Rehoboth		

NA	NA	Ministry of Agriculture, Water and Land Reform	NA	P/Bag 13184 Windhoek		
NA	NA	Khomas Regional Council	NA	P.O. Box 3379 Windhoek		+264 67 302 646 / 38 58
NA	NA	Hardap Regional Council	NA	P.O. Box 2017 Mariental		+264 67 302 646 / 38 58
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Atsigas-noord		Husselmann	Victor Errol	P O Box 508 Rehoboth	victorh@iway.na	0813118808
Kartatsaus		Husselmann	Katrina Magdalena	P O Box 548 Rehoboth		
Atsigas		Eiman	Hendrik David Eiman	P O Box 4052 Rehoboth		
Teenspoed		Eberenz	Estie	P O Box 2126 Ngwese, Katima Mulilo		
Hexenkessel	✓	Bader ✓	Werner and Renate	P O Box 80627 Windhoek ✓	bader@iway.na ✓	0811271612 or 0812942882
NA	NA	Ministry of Environment, Forestry and Tourism	NA	P/Bag 13306 Windhoek		+264 61 284 2111
NA	NA	Ministry of Mines and Energy	NA	P/Bag 13297 Windhoek	info@mme.gov.na	+264 61 284 8112
NA	NA	Ministry of Urban and Rural Development	NA	P/Bag 13289 Windhoek		+264 61 297 5111

NA	Mr & Mrs	Bader	Heinrich & Irene	NA	Mr Heinrich Bader - bader.hp@iway.na Mrs Irene Bader - badauer@gmail.com	
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NA		Bertchen	Kohrs		earthl@iway.na	227913
NA	Ms	Bader	Danika		danikabader@outlook.com	0812787484 or +27763673983
NA	Mr & Mrs	Sternagel	Thornsten and Irmgard	NA	thor@iway.na	
NA	Mr	Lotter	Dante	NA	dantelotter@pmafrica.co.za	+2787820082
NA	Mr	Traut	Jamy	P.O.Box 35576, Windhoek	jamytraut@gmail.com	0811473816
NA	Mr	Basson	Reino	P.O.Box 86175, Eros, Windhoek	reino@highwaytt.com.na	0811282379
NA	NA	Naru	Boerdery	P.O.Box 80823, Windhoek	accounts@bluechipcc.com	0811220529
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NA	Mr	A W	Schabel	P.O.Box 1102, Windhoek	arno@aquadrilling.com.na	0811275131
NA	Mr	Smith	Johan	P.O.Box 97014, Windhoek	johan@whkla.com	0811270870
NA	NA	Boerevereeniging	Uhlenhorst	NA	uhlenhorst.bv.sekretaris@gmail.com	NA
NA	Mr	Neethling	Rudolf	NA	ryk6305@	0811270563
On behalf of the concerned community	NA	Urban Green cc	Brand van Zyl	P. O. Box 11929, Klein Windhoek	urbangreen@iway.na	0811295759

Do you know of.

Danika Bader
Werner Bader } Wiese Hexenkessel

Rainer Ling Cowdray

KURT WELSCH 0816585722

APPENDIX D - WATER QUALITY RESULTS

Analytical Laboratory Services
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71 Newcastle Street • PO Box 86782 • Eros • Windhoek • Namibia

TEST REPORT

To: **Mertens Mine**
P.O. Box 1182
Tsumeb

Date received: **31/Jan/20**
Date required:
Date completed: **13/Feb/20**

Attn: Mr A Neethling

e-mail: **baasco@afol.com.na**

Your Reference: QU-3964
Lab Reference: I200279

Sample details	water sample
Location of sampling point	-
Description of sampling point	-
Date of sampling	2020/01/30
Time of sampling	-
Test item number	I200279/1

				Recommended maximum limits			
				Human consumption			Livestock
Parameter	**Value**	**Units**	**Classification**	**Group A**	**Group B**	**Group C**	**watering**
p H	**6,9**		**A**	6-9	5.5-9.5	4-11	
Electrical Conductivity	**129,5**	**mS/m**	**A**	150	300	400	
Turbidity	**0,20**	**NTU**	**A**	1	5	10	
Total Dissolved Solids (calc.)	**868**	**mg/l**					6000
P-Alkalinity as $CaCO_3$	**0**	**mg/l**					
Total Alkalinity as $CaCO_3$	**455**	**mg/l**					
Total Hardness as $CaCO_3$	**537**	**mg/l**	**B**	300	650	1300	
Ca-Hardness as $CaCO_3$	**282**	**mg/l**	**A**	375	500	1000	2500
Mg-Hardness as $CaCO_3$	**255**	**mg/l**	**A**	290	420	840	2057
Chloride as Cl^-	**52**	**mg/l**	**A**	250	600	1200	1500-3000
Fluoride as F^-	**1,5**	**mg/l**	**A**	1,5	2,0	3,0	2.0-6.0
Sulphate as SO_4^{2-}	**84**	**mg/l**	**A**	200	600	1200	1000
Nitrate as N	**19**	**mg/l**	**B**	10	20	40	100
Nitrite as N	**<0.01**	**mg/l**					10
Sodium as Na	**83**	**mg/l**	**A**	100	400	800	2000
Potassium as K	**6,0**	**mg/l**	**A**	200	400	800	
Magnesium as Mg	**62**	**mg/l**	**A**	70	100	200	500
Calcium as Ca	**113**	**mg/l**	**A**	150	200	400	1000
Manganese as Mn	**0,01**	**mg/l**	**A**	0,05	1,0	2,0	10
Iron as Fe	**0,01**	**mg/l**	**A**	0,1	1,0	2,0	10
Stability pH, at 25°C	**6,8**						
Langelier Index	**0,1**	scaling		>0=scaling, <0=corrosive, 0=stable			
Ryznar Index	**6,7**	stable		<6.5=scaling, >7,5=corrosive, ≥6.5 and ≤7.5=stable			
Corrosivity ratio	**0,4**	increasing corrosive tendency		Applies to water in the pH range 7-8			
				which also contains dissolved oxygen			
				ratios <0.2 no corrosive properties			
				ratios >0.2 increasing corrosive tendency			

Remark: Overall classification of water, considering only constituents that have been tested for:
Group B, good quality water.

Interpretation based on guidelines for the evaluation of drinking water for human consumption, DWA, Namibia, July 1991

_____S. RügheimerLaboratory Manager

Tailings test

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71 Newcastle Street • PO Box 86782 • Eros • Windhoek • Namibia

TEST REPORT

To: **Mertens Mine**
P O Box 1182
Tsumeb

Attn: Mr A. Neethling

Date received: 31-Jan-20
Date completed: 31-Jan-20

Your Reference: verbal
Lab Reference: I200

Type of Test:	**Fe2O3**	**SiO2**	**Al2O3**	**K2O**	**P2O5**	**MnO**	**CaO**	**MgO**	**TiO2**	**Na2O**	**V2O5**	**BaO**	**Cr2O3**	**ZrO2**	**SO3**	**CuO**	**PbO**	**ZnO**	**Lol at 1000°C**	**Total**
Method Reference:	XRF on pulp (default geo method, no calibration for matrix)																			
Units:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Lab No.																				
1 Tailings light green	**10,7**	**50,8**	**10,8**	**-**	**-**	**0,2**	**11,4**	**-**	**1,5**	**-**	**-**	**-**	**-**	**-**	**0,3**	**6,92**	**-**	**-**	**-**	**92**

_____Silke RügheimerLaboratory Manager

ANALYTICAL LABORATORY SERVICES cc

P.O. Box 86782 Eros, Windhoek, Namibia
Tel (061) 210132 Fax (061) 210058 e-mail analab@mweb.com.na

TEST REPORT

To: **Mertens Mining**
P.O. Box 1211
Tsumeb

Date received: **4-Jun-09**
Date required:
Date completed: **12-Jun-09**

Attn: Mr. A. Neethling

Fax: **067 220509**

Your Reference: verbal
Lab Reference: I090573

Sample details	BH no 3
Depth of sampling	109m
Description of sampling point	at BH
Date of sampling	-
Time of sampling	-
Test item number	I090573/1

Parameter	Value	Units	Classification	Recommended maximum limits Human consumption Group A	Group B	Group C	Livestock watering
p H	7.6		A	6-9	5.5-9.5	4-11	
Electrical Conductivity	106.1	mS/m	A	150	300	400	
Turbidity	140	NTU	D	1	5	10	
Total Dissolved Solids (calc.)	711	mg/l					6000
P-Alkalinity as $CaCO_3$	0	mg/l					
Total Alkalinity as $CaCO_3$	430	mg/l					
Total Hardness as $CaCO_3$	439	mg/l	B	300	650	1300	
Ca-Hardness as $CaCO_3$	200	mg/l	A	375	500	1000	2500
Mg-Hardness as $CaCO_3$	239	mg/l	A	290	420	840	2057
Chloride as Cl^-	34	mg/l	A	250	600	1200	1500-3000
Fluoride as F^-	1.3	mg/l	A	1.5	2.0	3.0	2.0-6.0
Sulphate as SO_4^{2-}	67	mg/l	A	200	600	1200	1000
Nitrate as N	13	mg/l	B	10	20	40	100
Nitrite as N	<0.1	mg/l					10
Sodium as Na	78	mg/l	A	100	400	800	2000
Potassium as K	6.3	mg/l	A	200	400	800	
Magnesium as Mg	58	mg/l	A	70	100	200	500
Calcium as Ca	80	mg/l	A	150	200	400	1000
Manganese as Mn	0.02	mg/l	A	0.05	1.0	2.0	10
Iron as Fe	0.2	mg/l	B	0.1	1.0	2.0	10
Stability pH, at 25°C	7.0						
Langelier Index	0.6	scaling		>0=scaling, <0=corrosive, 0=stable			
Ryznar Index	6.3	scaling		<6.5=scaling, >7,5=corrosive, ≥6.5 and ≤7.5=stable			
Corrosivity ratio	0.3	increasing corrosive tendency		Applies to water in the pH range 7-8 which also contains dissolved oxygen ratios <0.2 no corrosive properties ratios >0.2 increasing corrosive tendency			

Remark: Overall classification of water, considering only constituents that have been tested for (turbidity not considered): Group B, good quality water

Interpretation based on guidelines for the evaluation of drinking water for human consumption, DWA, Namibia, July 1991

S. Rügheimer
Section head: Water Quality

ANALYTICAL LABORATORY SERVICES cc

P.O. Box 86782 Eros, Windhoek, Namibia
Tel (061) 210132 Fax (061) 210058 e-mail analab@mweb.com.na

Assessment of water quality for human consumption

For practical reasons, the guidelines are divided into four groups.
The highest group assigned to any of the constituents determines the classification of the water as a whole.
Group A: excellent quality water
Group B: good quality water
Group C: low risk water
Group D: high risk or water unsuitable for human consumption

Ideally water should be either Group A or Group B. If water is classified as Group C, the situation is not yet critical, but attention should be given to those constituents over the Group B limit. If however, the water is classified as Group D urgent and immediate attention is required to reduce the levels of the problem constituents in the water to suitable levels.

Naturally occurring chemicals that are of health significance in drinking water
Fluoride: Exposure to high levels of fluoride, which occurs naturally, can lead to mottling of teeth and, in severe cases, crippling skeletal fluorosis.
1.0-1.5 mg/L fluoride: slight mottling of dental enamel may occur in sensitive individuals. No other health effects expected

Chemicals from agricultural activities that are of health significance in drinking water
Nitrate and nitrite: In water it has been associated with methaemoglobinaemia, especially in bottle-fed infants
10-20 mg/l nitrate as N: methaemoglobnaemia may occurs in infants. No effects in adults

Some of the naturally occurring chemicals which occur in drinking water at concentrations below those at which toxic effects may occur.
Chloride: high concentrations of chloride give a salty taste to water. Concentrations in excess of 250 mg/l are increasingly likely to be detected by taste.
Hardness: Depending on the interaction of other factors, such as, pH and alkalinity, water with a hardness above approximately 200 ppm may cause scale deposition in the pipe work and tanks. On heating, hard waters form deposits of calcium carbonate scale.
pH: Optimum pH 6.5-8.
pH does not exert direct health effects, but may exert indirect health effects via metal solubility.
Sodium: The average taste threshold for sodium is about 200ppm.
Sulphate: It is generally considered that the taste impairment is minimal at levels below 250ppm.
Magnesium: The average taste threshold for magnesium is about 70ppm
Total dissolved solids: The palatability of water with a TDS level of less than 600ppm is generally considered to be good; drinking water becomes significantly and increasingly unpalatable at TDS levels greater than about 1000ppm.

Turbidity is a measure of the light-scattering ability of water and is indicative of the concentration of suspended matter in water.
Microorganisms are often associated with turbidity, hence low turbidity minimises the potential for transmission of infectious diseases. Turbidity also affects the aesthetic quality of water.
Turbidity in water is caused by the presence of suspended matter which usually consists of a mixture of inorganic matter, such as clay and soil particles and organic matter.
Turbidity may also be associated with the presence of inorganic ions such as manganese(II) and iron(II).
The consumption of turbid water *per se* does not have any direct health effects, but associated effects due to microbial contamination or the ingestion of substances bound to particulate matter, do.
Aesthetic effects (appearance, taste, odour) of turbidity can be mitigated or removed by filtration using household water filters if relatively small amounts of water are involved.

SRügheimer

S. Rügheimer
Section head: Water Quality

File
Mertens Water

REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND FORESTRY

Telephone:	**(061) 2087111**	**Department of Water Affairs**
Fax:	**(061) 2087697**	**Private Bag 13193**
Enquiries:	**E Coetzee**	**Windhoek**
Reference:	**PM 63**	**9000**

The Manager
Mertens Mining and Trading (Pty) Ltd
P O Box 1211
TSUMEB

Sir

APPLICATION FOR A PERMIT FOR THE DRILLING OF ONE BOREHOLE TO ABSTRACT WATER FOR MINING AND PROSPECTING PURPOSES ON THE FARM MERTENS NO. 63, WINDHOEK DISTRICT

1. The above-mentioned application has been approved. Attached please find permit number 10 698 which authorizes the drilling of the borehole concerned for mining and prospecting purposes.

2. You are kindly requested to comply with all the permit conditions, especially conditions number 3 and 9.

Yours faithfully

FD Wyderwaal
PERMANENT SECRETARY

All official correspondence must be addressed to the Permanent Secretary

REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND FORESTRY

Telephone: (061) 2087111
Fax: (061) 2087697
Enquiries: E Coetzee
Reference: PM 63

Department of Water Affairs
Private Bag 13193
Windhoek
9000

PERMIT NUMBER: 10 698

DATE: 6 May 2009

PERMIT ISSUED IN TERMS OF REGULATIONS 5 AND 9 OF GOVERNMENT NOTICE R1278 OF 23 JULY 1971 AS PROMULGATED UNDER SECTION 30(2) OF THE WATER ACT, 1956 (ACT 54 OF 1956), AS AMENDED

NAME OF PERMIT HOLDER	:	The Manager, Mertens Mining and Trading (Pty) Ltd
ADDRESS	:	P O Box 1211, Tsumeb
REGISTERED PROPERTY	:	Mertens No. 63
DISTRICT	:	Windhoek
CONTROL AREA	:	Windhoek-Gobabis Subterranean Water Control Area
VALIDITY PERIOD	:	Indefinitely. Subject to condition number 1
BOREHOLE TO BE DRILLED	:	Serial number WW 200791,
APPROXIMATE DEPTH OF BOREHOLE	:	150 metres maximum
PURPOSE FOR WHICH WATER MAY BE USED	:	Mining and Prospecting

This permit authorizes the drilling of the borehole identified as WW 200791 on the farm planning map, attached as Annexure A, subject to the following conditions:

1. If drilling is not completed within three years from the date of this permit, this permit automatically expires and application shall be made to the Permanent Secretary for the issuing of a new permit.

2. This permit is incident to the property and if the present owner sells the property, the permit shall be handed over to the new owner.

3. Enclosed please find the number plate for the borehole. The number plate shall be prominently placed for easy identification of the borehole. (Do not attach to movables such as the pump or engine or to the concrete block around the casing).

4. If the borehole is drilled in a riverbed, no embankments shall be constructed around the borehole in the riverbed which could result in the river damming up or its normal flow being impeded.

5. All installations, reservoirs, pipes, taps and reticulation systems shall be leak proof to prevent any spillage of water. The permit holder shall take the necessary precautions to use the water on his property to the best advantage.

6. The Permanent Secretary or his authorized representative in consultation with the Minister shall have the right to:

   (a) withdraw, amend or replace any condition of this permit or withdraw this permit in its entirety, after reasonable notice to the permit holder; and

   (b) inspect the source and installations at all reasonable times to determine whether the permit conditions are adhered to.

7. The Permanent Secretary shall not accept liability for damage or loss suffered by the permit holder should the relevant source wane or run dry or the period of validity of the permit not be extended or renewed.

8. Should the permit holder not comply with any of the permit conditions:

   (a) the Permanent Secretary may seal the borehole until the conditions are complied with;

   (b) the permit holder may be held liable for any costs which the Permanent Secretary may incur as a result thereof, and

   (c) the permit holder shall be guilty of an offence and shall, on conviction, be liable to the penalties prescribed in Section 170 of the Water Act, 1956 (Act 54 of 1956).

Cree 20/5/09 12h20 Notice to Drill OK

9. TECHNICAL DETAILS

9.1 The borehole may only be drilled by a person, registered in terms of regulation 29 of Government Notice R1277 of 23 July 1971. Legal steps will be taken against a drilling contractor who drills a borehole without ensuring that the necessary permit exists.

9.2 Before drilling commences, the permit holder shall contact Mr G Christelis or Ms W N Kambinda at Tel. 2087089/7105 at least one week before drilling commences, Windhoek and indicate when drilling is to commence and who the drilling contractor is. As soon as the drilling operation is completed, the permit holder shall inform the control officer of this fact so that an inspection can be carried out while the drilling machine is still in position to check the depth and water level of the borehole.

9.3 Drill cutting samples of approximately 250 gram each shall be taken every one metre drilled and also each time the formation changes indicating on each bag the depth at which the sample was taken and the formation change occurred. These samples, together with a 1litre water sample and the borehole completion report shall be submitted to the Control Officer: Abstraction Control, or delivered to room 228, 2nd floor, Government Office Park, Windhoek. GPS co-ordinates of the completed borehole position must be indicated on the aforementioned completion report.

9.4 The permit holder shall record in his own interest the water table and abstraction rate on a monthly basis.

9.5 A step test and/or a constant discharge test must be performed to evaluate the sustainable abstraction rate. A minimum of three steps should be applied; each step should be at least one hour long. The recovery period after the step drawdown test should be observed for the same time period that was needed for all steps. The constant discharge test should be carried out over 3 hours drawdown time and 3 hours recovery time. A water sample should be taken at the end of the constant discharge test (drawdown period) and taken to a water chemical laboratory to analyse the water quality. The Division of Geohydrology must be contacted prior to the test in order to provide technical guidelines for the test (Mr. G Christelis)

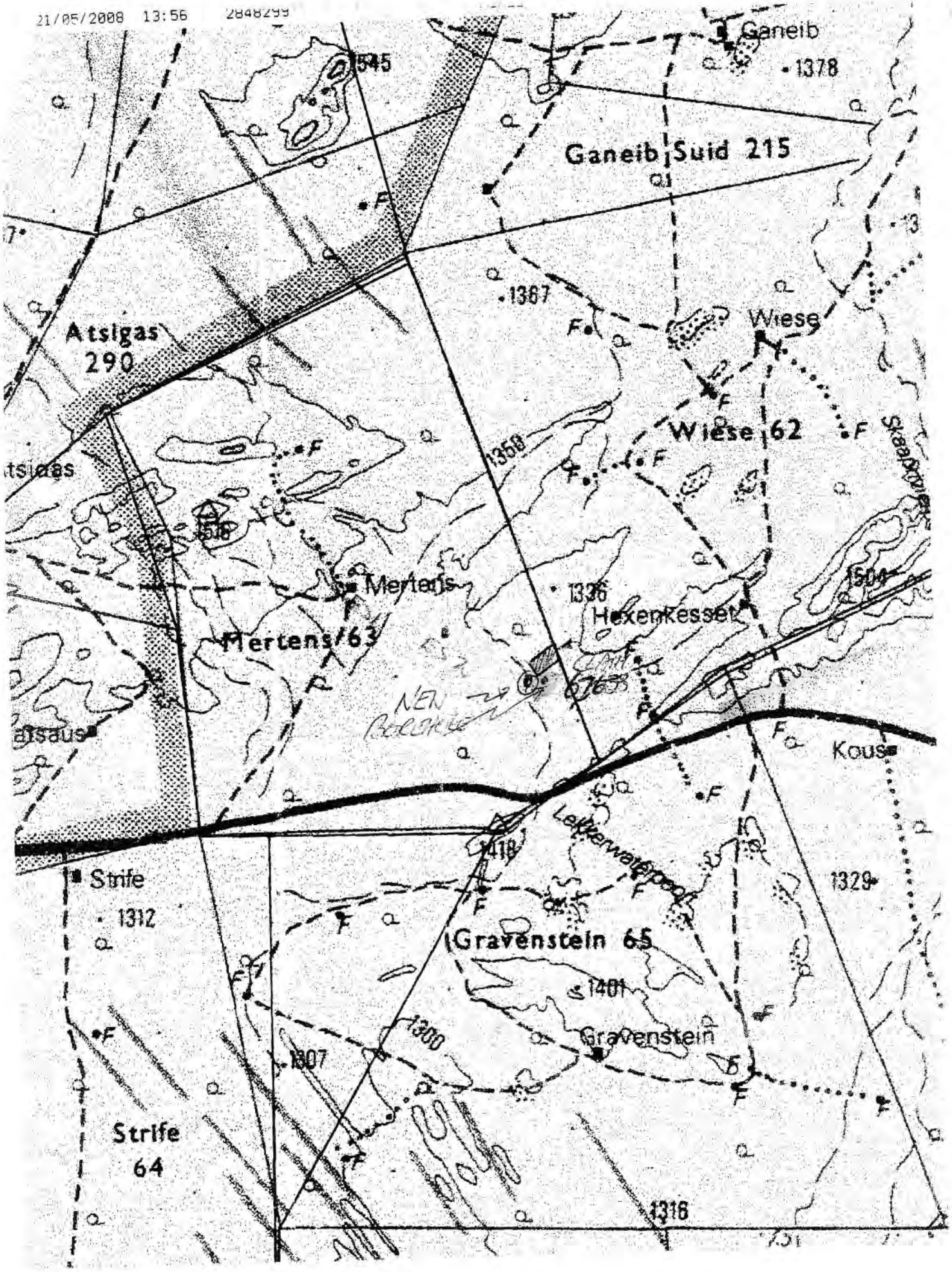
9.6 The results of the pumping test and chemical analyses must be sent to the Department of Water Affairs, Geohydrology.

9.7 The name and address of the owner and the name and number of the property as well as the district in which it is situated shall appear on a label firmly secured to the water sample container.

9.8 The permit holder shall leave an opening of 25 mm in the borehole cover (which can be closed with a screw plug) positioned in such a way that there is space to measure the borehole water level to the inside of the casing of the borehole.

pp Wydewaal
PERMANENT SECRETARY

21/05/2008 13:56 2848299



REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND FORESTRY

Telephone: (061) 2087111
Fax: (061) 2087697
Enquiries: E Coetzee
Reference: PM 63

Department of Water Affairs
Private Bag 13193
Windhoek
9000

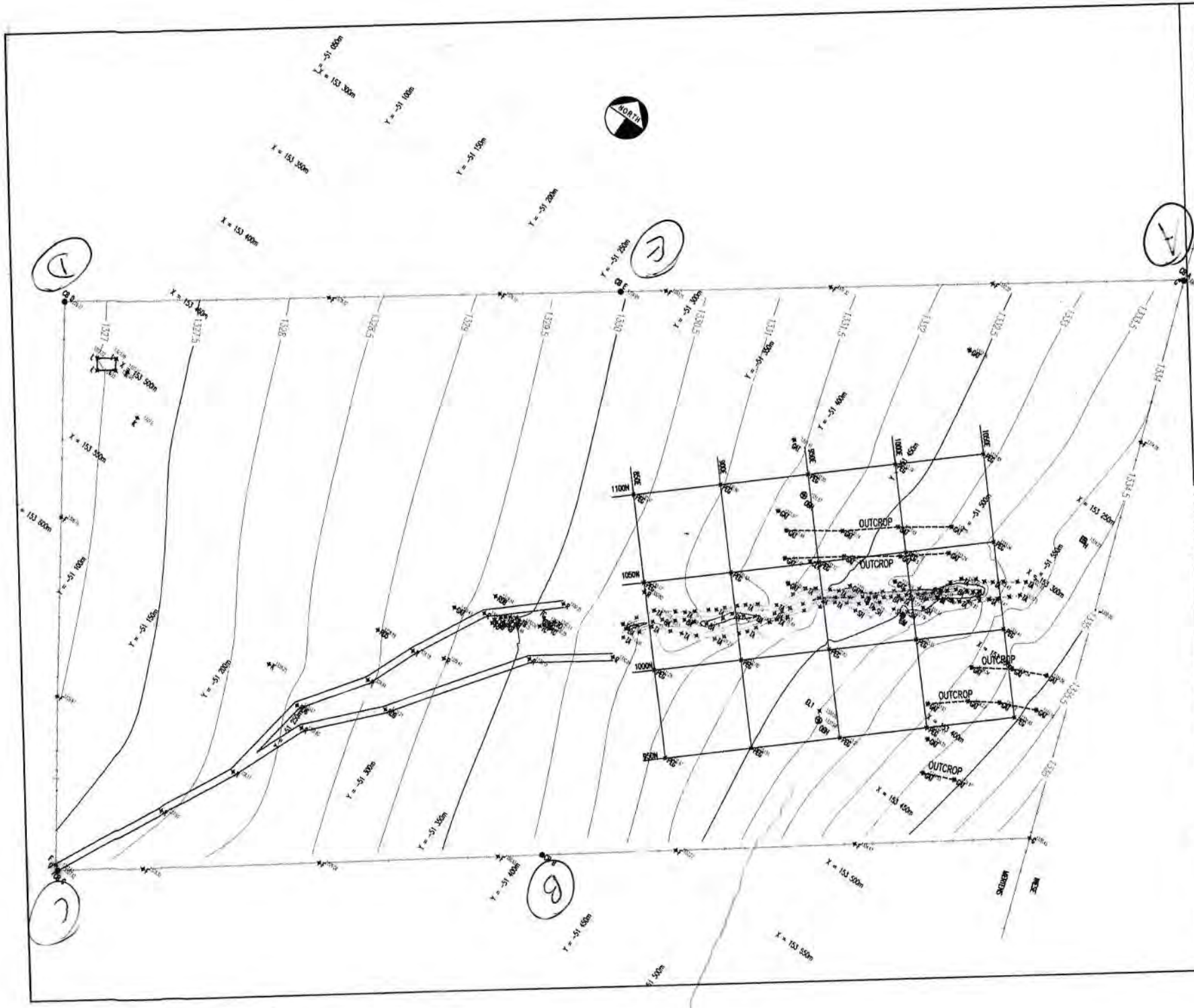
PERMIT NUMBER: 10 698

DATE: 6 May 2009

PERMIT ISSUED IN TERMS OF REGULATIONS 5 AND 9 OF GOVERNMENT NOTICE R1278 OF 23 JULY 1971 AS PROMULGATED UNDER SECTION 30(2) OF THE WATER ACT, 1956 (ACT 54 OF 1956), AS AMENDED

NAME OF PERMIT HOLDER	:	The Manager, Mertens Mining and Trading (Pty) Ltd
ADDRESS	:	P O Box 1211, Tsumeb
REGISTERED PROPERTY	:	Mertens No. 63
DISTRICT	:	Windhoek
CONTROL AREA	:	Windhoek-Gobabis Subterranean Water Control Area
VALIDITY PERIOD	:	Indefinitely. Subject to condition number 1
BOREHOLE TO BE DRILLED	:	Serial number WW 200791,
APPROXIMATE DEPTH OF BOREHOLE	:	150 metres maximum
PURPOSE FOR WHICH WATER MAY BE USED	:	Mining and Prospecting

This permit authorizes the drilling of the borehole identified as WW 200791 on the farm planning map, attached as Annexure A, subject to the following conditions:



LEGEND	
CODE	DESCRIPTION
CB	MINE BEACON
CR	CORNER
G	GATE
F	FENCE
SH	SPOT HEIGHT
H	HOUSE
TA	TOP OF QUARRY
BA	BOTTOM OF QUARRY
R	ROAD
L	LEACH PLANT
K	LEACH HEAP
BH	BORE HOLE
TB	TOP OF B QUARRY
BB	BOTTOM OF B QUARRY
CAT	SMALL TEST HOLE 1m x 1m
OBH	OLD BORE HOLES

CLAIM BEACONS			
CODE	Y	X	Z
CB A	-51 518.712	+153 111.143	
CB B	-51 405.038	+153 566.565	
CB C	-51 185.725	+153 751.826	
CB D	-51 004.641	+153 486.729	
CB E	-51 259.679	+153 299.968	
BENCH MARK			
BM	-51 495.72	+153 357.78	+1333.41

NO.	REVISIONS	DATE

SURVEYOR

PIERRE NEETHLING & ASSOCIATES
ENGINEERING, MINING & TRANSMISSION LINE SURVEYOR
P.O. BOX 88434 WINDHOEK
TEL (061) 264223 (WINDHOEK OFFICE)
FAX (061) 264223
E-MAIL pierre@mweb.com.na

SURVEYED: P Neethling		DRAWN: A. JORDAAN	
CHECKED: P Neethling		DGN:	

CLIENT

MERTENS MINING & TRADING (Pty) Ltd
trading as
REHOBOTH STONE CRUSHER cc

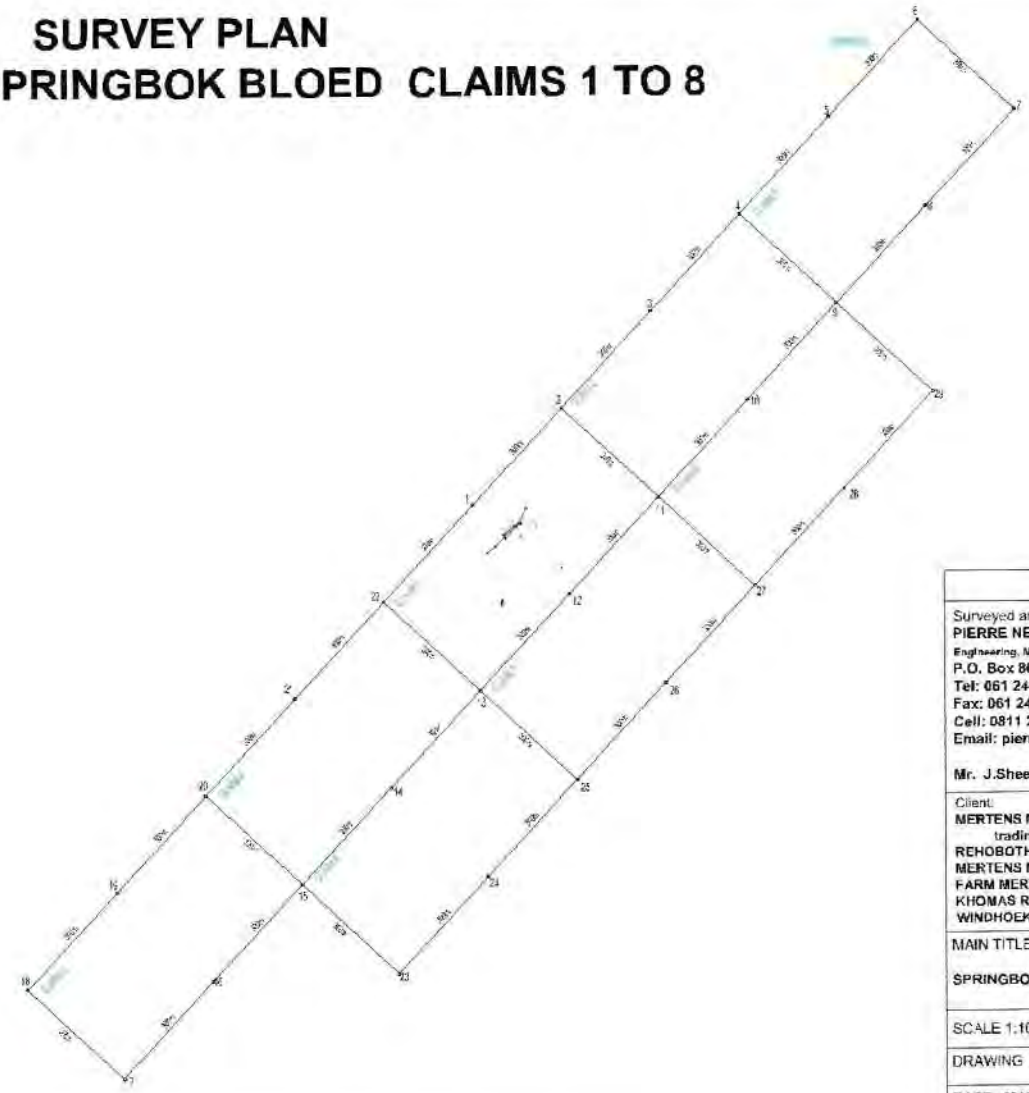
FARM MERTENS No 63
KHOMAS REGION
WINDHOEK DISTRICT

MAIN TITLE:

SURFACE PLAN
CLAIM No 67633

SCALE	1 : 2000	A3
DRAWING NO SURVEYOR		PROJECT NO
DRAWING NO	DS1415–MERTENS	REV. No.

SURVEY PLAN
SPRINGBOK BLOED CLAIMS 1 TO 8



Surveyed and Drawn by:
PIERRE NEETHLING & ASSOCIATES
Engineering, Mining & Transmission line surveyors
P.O. Box 86434, Windhoek
Tel: 061 244 784
Fax: 061 24 66 54
Cell: 0811 240 714
Email: pierre@mweb.com.na

Mr. J.Sheenya

Client:
MERTENS MINING & TRADING (Pty) Ltd
trading as
REHOBOTH STONE CRUSHER
MERTENS MINE
FARM MERTENS No 53
KHOMAS REGION
WINDHOEK DISTRICT

MAIN TITLE:

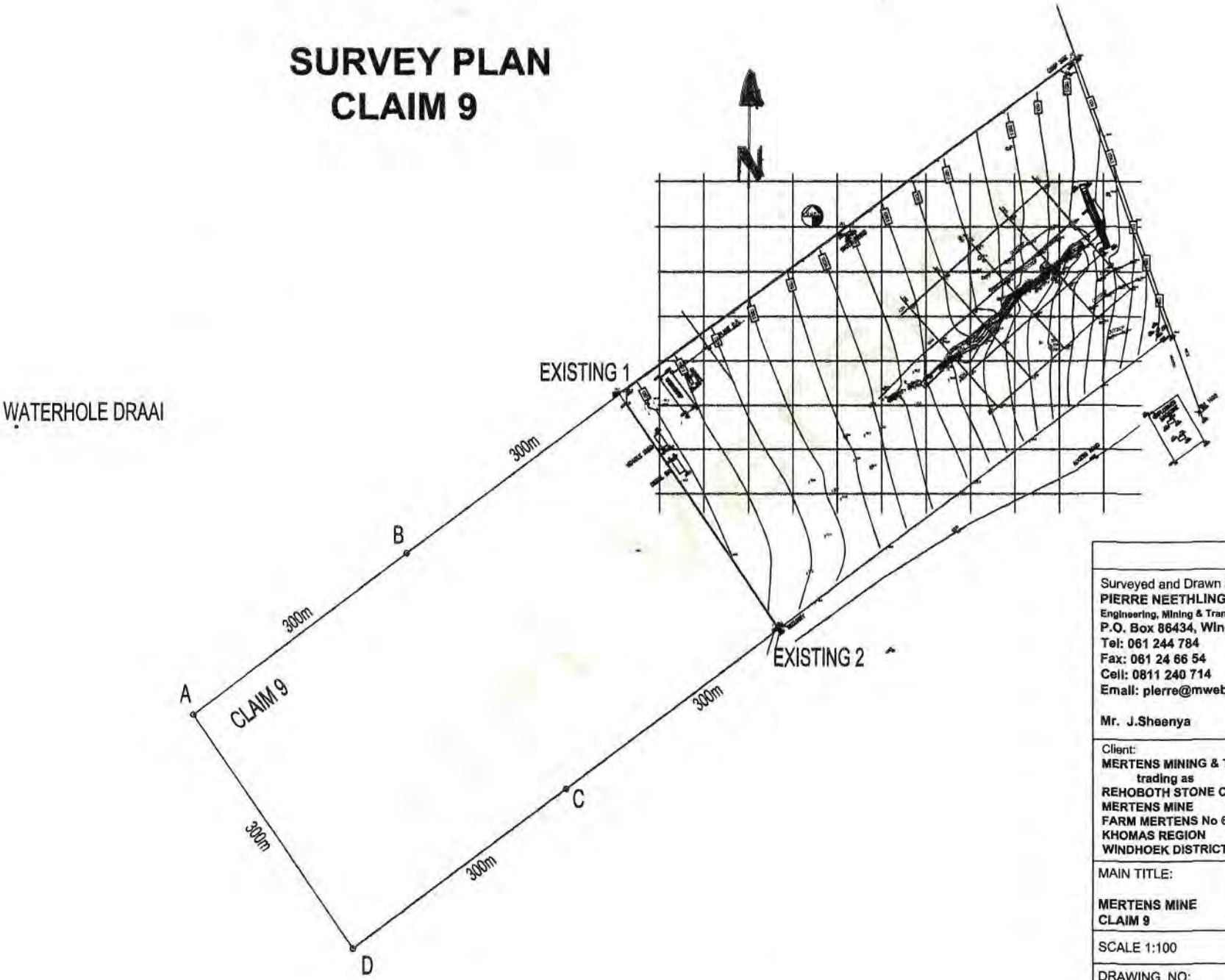
SPRINGBOK BLOED CLAIMS

SCALE 1:100

DRAWING NO:

DATE: **MAY 2012**

SURVEY PLAN
CLAIM 9



Surveyed and Drawn by:
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Engineering, Mining & Transmission line surveyors
P.O. Box 86434, Windhoek
Tel: 061 244 784
Fax: 061 24 66 54
Cell: 0811 240 714
Email: pierre@mweb.com.na

Mr. J.Sheenya

Client:
MERTENS MINING & TRADING (Pty) Ltd
trading as
REHOBOTH STONE CRUSHER
MERTENS MINE
FARM MERTENS No 63
KHOMAS REGION
WINDHOEK DISTRICT

MAIN TITLE:

MERTENS MINE
CLAIM 9

SCALE 1:100

DRAWING NO:

DATE: **MAY 2012**

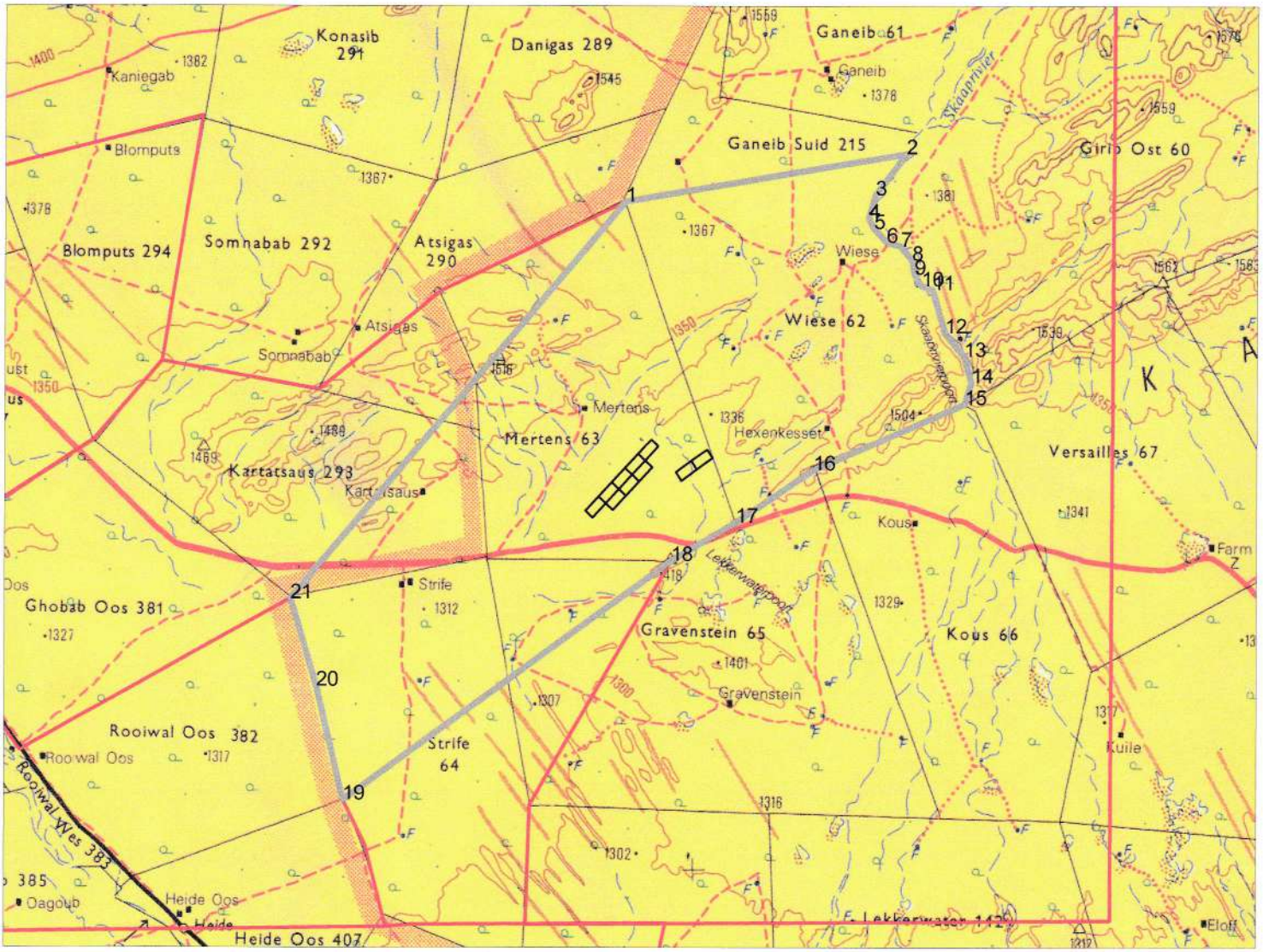
Co-ordinates of **ALL** corner beacons of mining claims pegged* **(Section 40(3)(a) of the Act)**

Ordinal Number		Latitude (South)	Longitude (East)
ONE (1)	i).	23:23:30,5	17:28:26,6
	ii).	23:23:16,2	17:28:40,9
	iii).	23:23:22.8	17:28:48.7
	iv).	23:23:37,1	17:28:34,4
TWO (2)	i).	23:23:16,2	17:28:40,9
	ii).	23:23:01,8	17:28:55,3
	iii).	23:23:08,5	17:29:03,0
	iv).	23:23:22.8	17:28:48,7
THREE (3)	i).	23:23:01,8	17:28:55,3
	ii).	23:22:47.5	17:29:09,6
	iii).	23:22:54,1	17:29:17,3
	iv).	23:23:08,5	17:29:03,0
FOUR (4)	i).	23:23:44,9	17:28:12,3
	ii).	23:23:30,5	17:28:26,6
	iii).	23:23:37,1	17:28:34,4
	iv).	23:23:51,5	17:28:20,0
FIVE (5)	i).	23:23:59,2	17:27:58.0
	ii).	23:23:44,9	17:28:12,3
	iii).	23:23:51,5	17:28:20,0
	iv).	23:24:05,8	17:28:05,7
SIX (6)	i).	23:23:51,5	17:28:20,0
	ii).	23:23:37,1	17:28:34,4
	iii).	23:23:43,8	17:28:42,1
	iv).	23:23:58,2	17:28:27,8
SEVEN (7)	i).	23:23:37,1	17:28:34,5
	ii).	23:23:22.8	17:28:48,7
	iii).	23:23:29,5	17:28:56,5
	iv).	23:23:43,8	17:28:42,1
EIGHT (8)	i).	23:23:22.8	17:28:48,7
	ii).	23:23:08,5	17:29:03,0
	iii).	23:23:15,2.	17:29:10,8
	iv).	23:23:29,5	17:28:56,5
NINE (9)	i).	23:23:20,2	17:29:26,8
	ii).	23:23:08,6	17:29:53,5
	iii).	23:23:17,2.	17:29:59,6
	iv).	23:23:28.8	17:29:42,8
	i).		
	ii).		
	iii).		
	iv).		

** In degrees/minutes/seconds or decimal degrees, accurate to eight (8) decimal places.*

DIAGRAM - EPL-4034

Issued in favour of: **Mertens Mining and Trading (Pty) Ltd**



Latitude and Longitude lines refer to the Bessel 1841 Spheroid

SCALE:	**1 : 200,000**
AREA:	**17,946.36 ha**
MAP(S):	**2316**
LOCALITY:	
* Region(s):	**Khomas/Hardap**
* Magisterial District(s):	**Windhoek/Rehoboth**
* Registration Division(s):	**K/M**

MINISTRY OF MINES AND ENERGY
MINING COMMISSIONER
2013 -07- 24
Private Bag 13297
F1 9000 WINDHOEK
OFFICIAL

Official Stamp

Certified by: .....
Mining Commissioner

created: 24. Jul 2013

14-1/0015

ENVIRONMENTAL CLEARENCE

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Enquiries: Ms. Saima Angula
Tel: 264 61 284 2111
Fax: 264 61 240339

FGI Building, 1st Floor
Post Street Mall
P/Bag 13306
Windhoek- Namibia

Date: Thursday, 01 March 2007

Rehoboth stone crusher cc
P.O. Box 4566
Rehoboth
Namibia

ENVIRONMENTAL CLEARANCE FOR MINING CLAIM 67633 SITUATED AT FARM MERTENS 63, WINDHOEK DISTRICT, KHOMAS REGION

We acknowledge receipt of all the necessary documents, which constitute the Environmental Contract between you and the Government of the Republic of Namibia.

On the basis of these documents, we are satisfied that you have provided sufficient commitment to limit unnecessary environmental impacts for the duration of your mining operation.

We trust that you will adhere to the conditions in the Environmental Contract, and this Ministry hereby gives you Environmental Clearance on the basis of, inter alia these conditions.

Yours sincerely,

06 MAR 2007

M. Lindeque
Permanent Secretary

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: +264 61 2842701
Fax: +264 61 240339
Enquiry: Ms. Saima Angula

Capital Centre, 6th Floor
Private Bag 13306
Windhoek

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Mertens Mining and Trading (Pty) Ltd
P.O. Box 1182
Tsumeb
Namibia

Dear Sir/ Madam

ENVIRONMENTAL CLEARANCE FOR MINING CLAIM 68853 - 68861 SITUATED AT FARM MERTENS 63, WINDHOEK DISTRICT, KHOMAS REGION

We acknowledge receipt of all the necessary documents, which constitute the Environmental Contract between you and the Government of the Republic of Namibia.

On the basis of these documents, we are satisfied that you have provided sufficient commitment to limit unnecessary environmental impacts for the duration of your mining operation.

We trust that you will adhere to the conditions in the Environmental Contract, and this Ministry hereby gives you Environmental Clearance on the basis of, inter alia these conditions.

Yours sincerely,

Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER

APPENDIX E - HERITAGE STUDY (ARCHEOLOGICAL ASSESSMENT)

COPY

+264 81 669 7608

info@eccenvironmental.com

www.eccenvironmental.com

REFERENCE: ECC-105-235-LET-13-A
16 March 2021

National Heritage Council
Private Bag 12043
Windhoek
Namibia

RECEIVED BY OFFICIAL STAMP
Received by Name:
Date: 17/03/2021
Signature: Agnes Shinyayana

FOR ATTENTION: **HEAD: HERITAGE MANAGEMENT**

Dear Mrs. Erica Ndalikokule

RE: REQUEST FOR HERITAGE CONSENT ON EPL 7699, INCLUDING THE EXPLORATION AND SMALL-SCALE MINING ACTIVITIES ON MINING CLAIMS 68855 – 68861 AND 67633 IN THE KHOMAS AND HARDAP REGIONS

Environmental Compliance Consultancy (ECC) has been engaged by Mertens Mining and Trading (Pty) Ltd, the Proponent, to act on their behalf for the environmental clearance certificate application for the proposed exploration activities on Exclusive Prospecting Licence (EPL) 7699, including the exploration and small-scale mining activities on mining claims 68855 – 68861 and 67633 in the Khomas and Hardap regions.

In terms of Section 32(1) of the Environmental Management Act (EMA), 2007, ECC has determined that the National Heritage Council is the Competent Authority to deal with the heritage aspect of the development and to which we submit our request as initiated by the Ministry of Environment, Forestry and Tourism.

ECC has commissioned the services of Dr. John Kinahan to conduct an archaeological field survey and assessment of the heritage sensitivity of the EPL within a dedicated focus area.

From the findings of Dr. Kinahan it is clear that the area of focus within which exploration activities are proposed has a low heritage sensitivity with no areas of interest that could be identified. The assessment conducted includes a chance find procedure which is based on the National Heritage Act of 2004. The assessment is hereto attached for your attention.

Therefore, based on the evidence submitted we hereby request for council to provide us with heritage consent on the project. Should we not receive a response from your esteemed office after 7 days we assume the NHC deems the submission made sufficient and that consent is subsequently applied.

Should you or your office require our assistance with the details contained within this letter or any project specific details, please do not hesitate to contact us and we will gladly assist.

Yours sincerely,

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

Jessica Bezuidenhout (Mooney)
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: jessica@eccenvironmental.com

ENVIRONMENTAL COMPLIANCE CONSULTANCY
CC/2013/11404
16 MAR 2021
ENVIRONMENTAL
COMPLIANCE CONSULTANCY
www.eccenvironmental.com

ARCHAEOLOGICAL ASSESSMENT ON EPL 7699 (INCLUDING EXPLORATION AND SMALL-SCALE MINING TARGETS ON MINING CLAIMS 68855-68861 AND 67633), LOCATED NEAR REHOBOTH, NAMIBIA

PREPARED BY

J.KINAHAN, Archaeologist
P.O. Box 22407, Windhoek, Namibia
Email *jkinahan@iafrica.com.na*

PREPARED FOR:

ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY

22 February 2021

22 February 2021

ECC Environmental
Windhoek
Namibia

For attention: Jessica Bezuidenhout

ARCHAEOLOGICAL ASSESSMENT OF EPL7699 IN KHOMAS AND HARDAP REGIONS, NAMIBIA

DECLARATION

I hereby declare that I do:

(a) have knowledge of and experience in conducting assessments, including knowledge of Namibian legislation, specifically the National Heritage Act (27 of 2004), as well as regulations and guidelines that have relevance to the proposed activity;

(b) perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

(c) comply with the aforementioned Act, relevant regulations, guidelines and other applicable laws.

I also declare that I have no interests or involvement in:

(i) the financial or other affairs of either the applicant or his consultant

(ii) the decision-making structures of the National Heritage Council of Namibia.

John Kinahan, Archaeologist

EXECUTIVE SUMMARY

An archaeological field survey was carried out on EPL7699 (including exploration and small-scale mining targets on Mining Claims 68855-68861 and 67633), located near Rehoboth, Namibia. The field survey did not locate any archaeological sites considered to be significant or to require special mitigation measures. It is however recommended that the project adopt the attached Chance Finds Procedure devised for mining projects.

TABLE OF CONTENTS

1. Introduction
2. Legal requirements
3. Receiving environment
4. Observations
5. Conclusions & recommendations

Appendix 1 Chance finds procedure

1. INTRODUCTION

1.1 Background

Environmental Compliance Consultancy (ECC) is carrying out an environmental assessment of EPL7699 (including exploration and small-scale mining targets on Mining Claims 68855-68861 and 67633). Mining is listed in the Environmental Management Act (2007) as an activity requiring environmental assessment and the issuance of an Environmental Clearance Certificate.

ECC has prepared a non-technical summary entitled Proposed Exploration Activities on EPL7699 for Mertens Mining & Trading (Pty) Ltd. which forms the background source for project data cited here.

Archaeological remains in Namibia are protected under the National Heritage Act (27 of 2004) and National Heritage Regulations (Government Notice 106 of 2005), and ECC has accordingly appointed the undersigned, J. Kinahan, archaeologist, to carry out an assessment of EPL7699. A field visit to the site was carried out on 15th February 2021.

1.2 Terms of Reference

The primary task of the archaeological assessment reported here was to identify sensitive archaeological sites that could be affected by the proposed exploration and mining activities. The archaeological assessment forms the basis of recommended management actions to avoid or reduce negative impacts, as part of the environmental assessment. The study is intended to satisfy the requirements of the relevant legislation and regulations, in which the process of review and clearance may require further, or different mitigation measures to be adopted.

Specifically, the archaeological assessment addresses the following primary elements:

1. The identification and assessment of potential impacts on archaeological/heritage resources, including historical sites arising from the proposed exploration and mining activities.
2. The identification and demarcation of highly sensitive archaeological/heritage sites requiring special mitigation measures to eliminate, avoid or compensate for possible destructive impacts.
3. Formulation and motivation of specific mitigation measures for the project to be considered by the authorities for the issuance of clearance certificates.
4. Identify permit requirements as related to the removal and/or destruction of heritage resources.

1.3 Assumptions & Limitations

Archaeological assessment relies on the indicative value of surface finds recorded in the course of field survey. Field survey results are augmented wherever possible by inference from the results of surveys and excavations carried out in the course of previous work in the same general area as the proposed project, as well as other sources such as historical documentation. Based on these data, it is possible to predict the likely occurrence of

further archaeological sites with some accuracy, and to present a general statement (see Receiving Environment, below) of the local archaeological site distribution and its sensitivity. However, since the assessment is limited to surface observations and existing survey data, it is necessary to caution the proponent that hidden, or buried archaeological or palaeontological remains might be exposed as the project proceeds

2. LEGAL REQUIREMENTS

The principal instrument of legal protection for archaeological/heritage resources in Namibia is the National Heritage Act (27 of 2004). Part V Section 46 of the Act prohibits removal, damage, alteration or excavation of heritage sites or remains. Section 48 *ff* sets out the procedure for application and granting of permits such as might be required in the event of damage to a protected site occurring as an inevitable result of development. Section 51 (3) sets out the requirements for impact assessment. Part VI Section 55 Paragraphs 3 and 4 require that any person who discovers an archaeological site should notify the National Heritage Council. Heritage sites or remains are defined in Part 1, Definitions 1, as "any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface".

It is important to be aware that no specific regulations or operating guidelines have been formulated for the implementation of the National Heritage Act in respect of archaeological assessment. However, archaeological impact assessment of large projects has become accepted practice in Namibia during the last 25 years, especially where project proponents need also to consider international guidelines. In such cases the appropriate international guidelines are those of the World Bank OP/ BP 4.11 in respect of "Physical Cultural Resources" (R2006-0049, revised April 2013). Of these guidelines, those relating to project screening, baseline survey and mitigation are the most relevant.

Archaeological impact assessment in Namibia may also take place under the rubric of the Environmental Management Act (7 of 2007) which specifically includes anthropogenic elements in its definition of environment. The List of activities that may not be undertaken without Environmental Clearance Certificate: Environmental Management Act, 2007 (Govt Notice 29 of 2012), and the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 (Govt Notice 30 of 2012) both apply to the management of impacts on archaeological sites and remains whether these are considered in detail by the environmental assessment or not.

3. RECEIVING ENVIRONMENT

The proposed mining activities are to be carried out on EPL7699, where Mining Claims 68855-68861 and 67633 have already been the focus of limited trenching and some exploration drilling. A part of the lease area estimated to cover about 8ha is fenced off to secure a number of sheds and some earthmoving equipment and to prevent

access to open trenches. The remainder of the lease which is located on the farm Mertens (63) and Gravenstein (65) located approximately 40km east of Rehoboth[1].

EPL7699 is characterized by open valley terrain surrounded on three sides by prominent rocky ridges mainly representing the Mokolian age Marienhof Fmn. with minor outcropping quartzites and conglomerates of the Doornpoort Fmn. The valley floor is filled with shallow Kalahari sands overlying pedogenic calcretes with recemented cobbles derived from the minor outcrops. The conglomerates show local fracturing associated with superficial mineralization represented by visible azurite, chrysocolla and other copper minerals at surface. These showings appear to have attracted exploration attention and have been targeted with small scale trenches. The mineralization does not appear to develop with depth and it may be for this reason that trenching seems to have been abandoned.

The surrounding environment in the vicinity of EPL7699 includes elements of two overlapping vegetation zones of Acacia Tree and Scrub Savanna, namely Southern Kalahari and Highland Shrubland, as well as Dwarf Shrub Savanna of the Nama Karoo[2]. Drainage is well developed and deeply incised, supporting narrow belts of riparian bush. Some outcrops of Doornpoort conglomerate have small potholes which serve as natural water catchments in an environment which is otherwise without permanent surface water. The flanks of the surrounding Marienhof Fmn ridges have patchy deposits of Tertiary Kalahari dune sand which probably represent the increased aeolian sand transport of the Last Glacial Maximum when the valley floor would have been without vegetation cover[3].

Earlier surveys provide an indication of the archaeological importance of this general area, although the intensity of survey varies considerably and large parts of the area are archaeologically unknown, including that of EPL7699. The general sequence and archaeological characteristics of the area under consideration, based on current knowledge, are as follows:

a. **Early to mid-Pleistocene (ca. 2my to 0.128my; OIS[4] 6, 7, 19 &c):** represented by surface scatters of stone tools and artefact debris, usually transported from original context by fluvial action, and seldom occurring in sealed stratigraphic context.
b. **Mid- to upper Pleistocene (ca. 0.128my to 0.040my; OIS 3, 4 & 5a-e):** represented by dense surface scatters and rare occupation evidence in sealed stratigraphic context, with occasional associated evidence of food remains.
c. **Late Pleistocene to late Holocene (ca. 0.040my to recent; OIS 1 & 2):** represented by increasingly dense

[1] EPL7699 lies mainly within the Khomas Region but extends into the Hardap Region.

[2] Mendelsohn, J., Jarvis, A., Roberts, C. & Robertson, T. eds. 2002. *Atlas of Namibia: a portrait of the Land and its People.* Cape Town: David Philip.

[3] Lancaster, N. 1984. Aridity in southern Africa: Age, origins and expression in landforms and sediments. In Vogel, J.C. ed. *Late Cainozoic palaeoclimates of the Southern Hemisphere.* Rotterdam: Balkema, pp. 433–44.

[4] Oxygen Isotope Stages (OIS) referenced here follow Mitchell, P. 2002. *The archaeology of southern Africa.* Cambridge: Cambridge University Press.

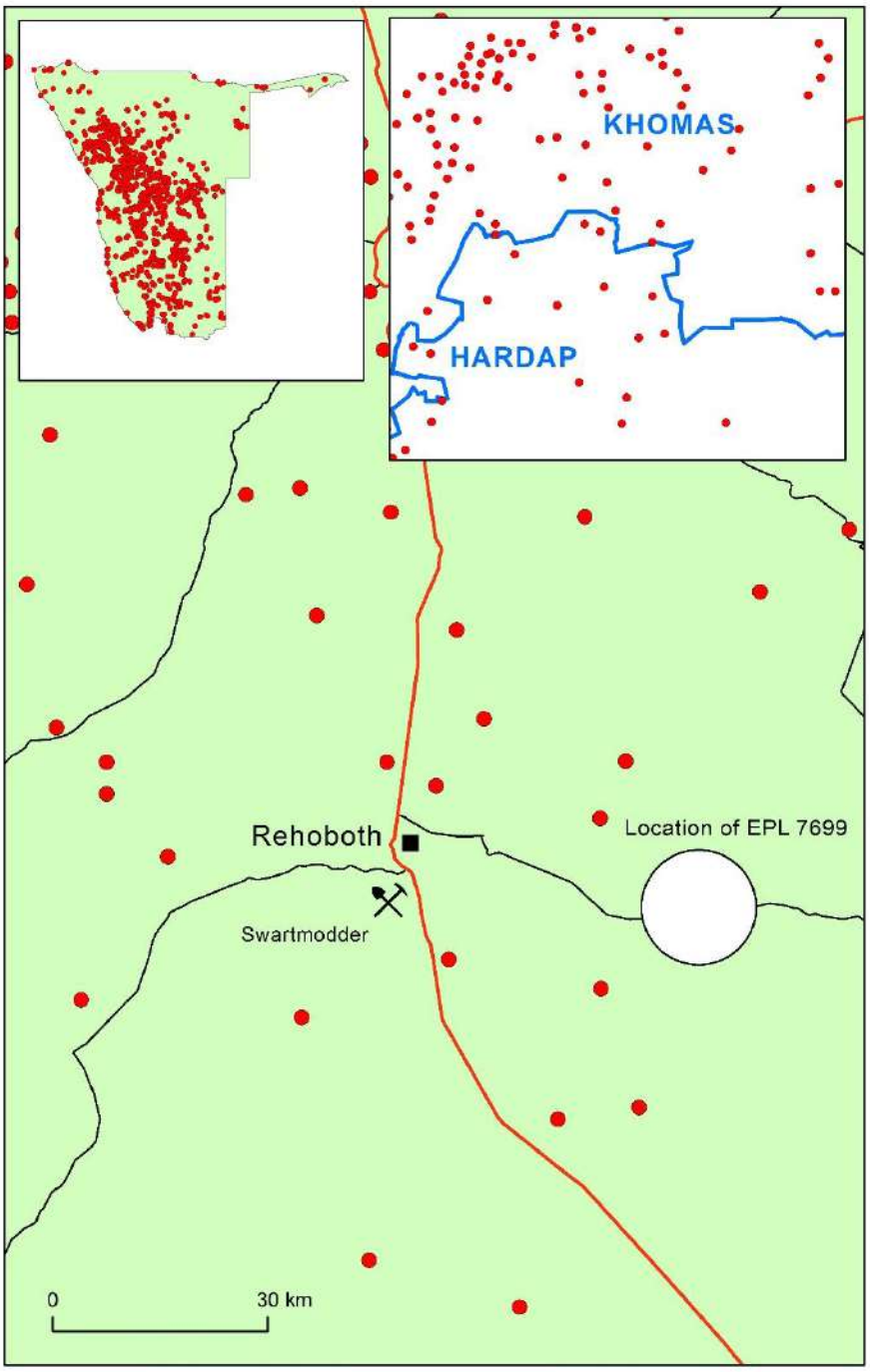


Figure 1: The location of EPL7699, showing the known distribution of archaeological sites (red dots) in the adjacent area and regions. Also indicated is the location of the historical copper mine at Swartmodder, referenced in the text.

a. and highly diverse evidence of settlement, subsistence practices and ritual art, as well as grave sites and other remains.

b. **Historical (the last ca. 250 years):** represented by remains of crude buildings, livestock enclosures, wagon routes and watering points, as well as graves, comprising small cemeteries near farm settlements or isolated burial sites.

In summary, early to mid-Pleistocene sites are associated with pans, outwash gravels, drainage lines and river gravels. These sites are difficult to detect and because they are easily overlooked in the course of mining or construction work they are often damaged or destroyed in the process. Mid- to upper Pleistocene sites occur in similar contexts to the earlier material, but hill foot-slopes and outcrops of rock suitable for artefact production (e.g. chert, fine-grained quartzites) are also focal points. Late Pleistocene to late Holocene sites occur in almost every terrain setting, with the exception of very steep slopes and mountain tops. These sites often exhibit locally integrated distribution patterns which allow some reconstruction of land-use and subsistence. Major Holocene sites include stratified occupation deposits, containing an array of organic and inorganic residues. Heritage sites relating to the historical period relate mainly to farming settlement in the vicinity of Rehoboth and outlying villages.

4. OBSERVATIONS

A detailed foot survey concentrating on the area of Mining Claims Claims 68855-68861 and 67633 (Figure 1) found no significant archaeological sites and is therefore considered to have a low archaeological sensitivity. The valley floor was however found to have localized scatters of stone artefact production debris, mainly hydrothermal vein quartz as well as coarse quartzite clasts probably derived from the Doornpoort Fmn conglomerates which seem to be responsible for the bulk of unconsolidated rubble on the surface. The scatters were dispersed and showed a very low artefact density (<1 object/m^2), indicating either ephemeral occupation or, more likely, post-occupation disturbance in the form of sheet erosion. Although the artefact scatters contained no typologically diagnostic pieces, the material can be attributed to Late Pleistocene to recent Holocene (ca. 0.040my to recent; OIS 1 & 2) hunter-gatherer occupation. No possible human burial sites were noted although the possibility of these cannot be dismissed entirely.

In the course of the foot survey, close attention was paid to areas of visible copper mineralization, as described in the Introduction. Small-scale indigenous copper production formed an important component of the pre-colonial economy in central Namibia, especially during the last one thousand years. Indigenous copper extraction and processing was superseded in the mid-19th century by European prospectors and miners. The technology of pre-colonial copper production depended on the use of carbonate-rich ores which occur as weathering products of copper “gossan” features. These deposits are associated geologically with the Matchless amphibolite belt and the relatively high-grade ores found among these deposits had the particular advantage that they could be lightly crushed and processed in an open furnace often without the need to add a flux. Indeed,

it seems likely that pre-colonial knowledge of copper minerals and processing requirements was limited and only certain ores were useable[5].

Pre-colonial copper processing in central Namibia leaves subtle but unmistakeable archaeological traces. These include the remains of stone open-hearth furnaces usually within 1-2km of outcropping copper. The furnaces are usually found in a completely dismantled state due to the fact that low smelting temperatures (barely above 1000°C) and poor fluxing resulted in incomplete separation of metallic copper and a highly viscous slag. Copper produced in this way generally took the form of small metallic prills trapped within the slag. Furnace slag had to be cooled and broken apart with stone hammers, resulting in dense surface deposits if black crushed slag. The copper prill extracted from the slag were evidently taken for processing at other sites. Furnace sites appear to have been segregated from ordinary residential sites and consequently have little associated occupation debris.

Surficial copper occurrences in central Namibia which are not associated with the Matchless amphibolite commonly include chrysocolla a hydrated copper phyllosilicate found as vein deposits in minor fractures. Lacking the carbonate and weathered iron oxide of gossan deposits the copper found as chrysocolla (including azurite and cuprite) could not be processed either by pre-colonial African mineral technologies or those available to 19th century European miners in Namibia. As a consequence, these deposits were not exploited. The geology of copper oxide deposits is however complex and the deposit at Swartmodder, a mere 20km from EPL7699, was mined by indigenous people in the early 19th century when their activities at the site were observed and described in 1835 by the explorer James Alexander[6].

5. CONCLUSIONS & RECOMMENDATIONS

On the basis of the field survey reported here the portion of EPL7699 is not considered to be archaeologically sensitive. No archaeological sites requiring further investigation or mitigation were located in the course of the survey. It is however recommended that the proponent should adopt the Chance Finds Procedure in Appendix 1 as part of the project Environmental Management Plan.

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[5] Kettis, E. & Enflo, L. 1996. *Copper production experiment: An archaeological study in Namibia.* Stockholm: Minor Field Study, Department of Archaeology, University of Stockholm; Miller, D.E. & Kinahan, J. 1992. The metallurgical analysis of copper beads and ore from archaeological sites in central Namibia. *Communications of the Geological Survey of Namibia* 8: 67–79; Kinahan, J. 1980. Eighteenth century coppersmiths in central Namibia: Comments on some sources and syntheses. *Namibiana* 2: 17–22.

[6] Alexander, J.E. 1967. *An Expedition of Discovery into the Interior of Africa.* Two volumes. Facsimile reprint, Cape Town: C. Struik.

Appendix 1: Chance Finds procedure

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

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

Compliance: The "chance finds" procedure is intended to ensure compliance with relevant provisions of the National Heritage Act (27 of 2004), especially Section 55 (4): *"a person who discovers any archaeological …. object ……must as soon as practicable report the discovery to the Council".* The procedure of reporting set out below must be observed so that heritage remains reported to the NHC are correctly identified in the field.

Responsibility:

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

Procedure:

Action by person identifying archaeological or heritage material

a) If operating machinery or equipment stop work

b) Identify the site with flag tape

c) Determine GPS position if possible

d) Report findings to foreman

Action by foreman

a) Report findings, site location and actions taken to superintendent

b) Cease any works in immediate vicinity

Action by superintendent

a) Visit site and determine whether work can proceed without damage to findings

b) Determine and mark exclusion boundary

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

Action by archaeologist

a) Inspect site and confirm addition to project GIS

b) Advise NHC and request written permission to remove findings from work area

c) Recovery, packaging and labelling of findings for transfer to National Museum

In the event of discovering human remains

a) Actions as above

b) Field inspection by archaeologist to confirm that remains are human

c) Advise and liaise with NHC and Police

d) Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.

APPENDIX F - ECC CVS