

**ARCHAEOLOGICAL AND CULTURAL HERITAGE IMPACT  
ASSESSMENT REPORT FOR EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 6776,  
ARANDIS DISTRICT, ERONGO  
REGION, NAMIBIA**

Compiled by:

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Prepared for:

**Moses Sasamba**

## Project Details

Table 1: Project Details

Item	Description
Proposed development and location	<b>Moses Sasamba (The Proponent)</b> is intending to carry out exploration activities on Exclusive Prospecting License (EPL) No. 6776. The EPL is located in Arandis and covers a surface area of 7005.2376 hectares.
Title	<b>ARCHAEOLOGICAL AND CULTURAL HERITAGE IMPACT ASSESSMENT REPORT FOR EXCLUSIVE PROPECTING LICENSE (EPL) NO. 6776, ARANDIS DISTRICT, ERONGO REGION</b>
Purpose of the study	The purpose of this document is an Archaeological and Heritage Impact Assessment report that describes the cultural values and heritage factors that may be impacted on by the proposed mining activities.
Coordinates Municipalities	EPL Centred at 22° 34' 35'' S 14° 51' 48'' E Arandis District
Predominant land use of surrounding area	Farming and Mining
Heritage Consultant	<b>Omapipi Tageya Archaeological and Heritage Consultants cc (Reg No: cc/2021/2930)</b>
Author(s) identification	<b>Kaarina Shagwanepandulo Efraim</b>

In terms of land ownership, the area under study falls on communal land and partly private land (commercial farms).

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**Geographic Co-ordinate Information:** Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5 m.

**Maps:** Maps included in this report use data extracted from the NTS Map and Google Earth Pro.

**Disclaimer:** The Authors are not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

The Archaeological and Heritage Impact Assessment Study was carried out within the context of tangible and intangible cultural heritage resources as defined by the National Heritage Council Regulations and Guidelines as to the authorisation of the exploration project being proposed by Mr. Moses Sasamba.

## DECLARATION

I hereby declare that I do:

1. Have knowledge of and experience in conducting archaeological 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;
2. Perform the work relating to the application in an objective manner, even if this results in views and findings that are not favorable to the applicant;
3. 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; and
  - (ii) the decision-making structures of the National Heritage Council of Namibia.

Signed by:

A handwritten signature in black ink, appearing to read 'E. Franke', is written over a light blue rectangular stamp.

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## Executive Summary

An archaeological and heritage impact assessment was carried out for Mr. Moses Sasamba, focusing on the proposed exploration activities on an Exclusive Prospecting Licence (EPL) No. 6776, located in the Arandis district, Erongo region, Namibia through a field-based survey and desktop study. The assessment therefore reviewed the archaeological records, historical documents from the previous studies surrounding the area, interviews with locals and stakeholders, GIS spatial data, field survey as a basis of inference regarding the archaeological and heritage significance of the project site, and their likely sensitivity to be disturbed in the course of exploration activities. The field survey located and recorded a recent burial site within the boundaries of EPL 6776. The above - mentioned sources were used to conclude that damage or disturb sites or materials protected under the National Heritage Act (27 of 2004) is likely to occur during the exploration phase. Hence, the proponent is advised to adopt the Chance Finds Procedure attached as Appendix 1 to this report as chances are high that buried archaeological remains could come to light during the course of exploration activities.

## Acronyms

Abbreviation	Description
AIA	Archaeological Impact Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
LIA	Late Iron Age
NHA	Nation Heritage Act, Act 27 of 2004
SM	Site Manager
NHCN	National Heritage Council of Namibia
ESA	Later Stone Age
EPL	Exclusive Prospecting License
ECC	Environmental Clearance Certificate
CFP	Chance Find Procedure
EMA	Environmental Management Act

## Key Concepts and Terms

**Periodization** Archaeologists divide the different cultural periods according to the dominant material finds for the different time periods. This periodization is usually region-specific, such that the same label can have different dates for different areas. This makes it important to clarify and declare the periodization of the area one is studying.

These periods are nothing a little more than convenient time brackets because their terminal and commencement are not absolute and there are several instances of overlap. In the present study, relevant archaeological periods are given below;

**Early Stone Age** (~ 2.6 million to 250 000 years ago)

**Middle Stone Age** (~ 250 000 to 40-25 000 years ago)

**Later Stone Age** (~ 40-25 000, to recently, 100 years ago)

**Early Iron Age** (~ AD 200 to 1000)

**Late Iron Age** (~ AD1100-1840)

**Historic** (~ AD 1840 to 1950, but a Historic building is classified as over 60 years old)

**Definitions** Just like periodization, it is also critical to define key terms employed in this study. Most of these terms derive from Namibian National heritage legislation and its ancillary laws, as well as international regulations and norms of best-practice. The following aspects have a direct bearing on the investigation and the resulting report:

**Cultural (heritage) resources** are all non-physical and physical human-made occurrences, and natural features that are associated with human activity. These can be singular or in groups and include significant sites, structures, features, Eco facts and artefacts of importance associated with the history, architecture or archaeology of human development.

**Cultural significance** is determined by means of aesthetic, historic, scientific, social or spiritual values for past, present or future generations.

**Value** is related to concepts such as worth, merit, attraction or appeal, concepts that are associated with the (current) usefulness and condition of a place or an object. Although significance and value are not mutually exclusive, in some cases the place may have a high level of significance but a lower level of value. Often, the evaluation of any feature is based on a combination or balance between the two.



**Isolated finds** are occurrences of artefacts or other remains that are not in-situ or are located apart from archaeological sites. Although these are noted and recorded, but do not usually constitute the core of an impact assessment, unless if they have intrinsic cultural significance and value.

**In-situ** refers to material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

**Archaeological site/materials** are remains or traces of human activity that are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures. According to the Namibia National Heritage Act (NNHA) (Act No. 27 of 2004), no archaeological artefact, assemblage or settlement (site) and no historical building or structure older than 60 years may be altered, moved or destroyed without the necessary authorization from the National Heritage Council or a provincial heritage resources authority.

**Historic material** are remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

**Chance finds** means archaeological artefacts, features, structures or historical remains accidentally found during development.

**A grave** is a place of interment (variably referred to as burial) and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery (contemporary) or burial ground (historic).

**A site** is a distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

**Heritage Impact Assessment (HIA)** refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, which requires authorization of permission by law and which may significantly affect the cultural and natural heritage resources. Accordingly, an HIA must include recommendations for appropriate mitigation measures for minimizing or circumventing negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

**Impact** is the positive or negative effects on human well-being and / or on the environment.

**Mitigation** is the implementation of practical measures to reduce and circumvent adverse impacts or enhance beneficial impacts of an action.

**Mining heritage sites** refer to old, abandoned mining activities, underground or on the surface, which may date from the pre-historical, historical or the relatively recent past.

**Study area or 'project area'** refers to the area where the developer wants to focus its development activities (refer to plan).

**Phase I** studies refer to surveys using various sources of data and limited field walking in order to establish the presence of all possible types of heritage resources in any given area.

## 1.0 Introduction

The Government of Namibia recognizes that the exploration and development of its mineral wealth could best be undertaken by the private sector. The government, therefore, focuses on creating an enabling environment through appropriate competitive policy and regulatory frameworks for the promotion of private sector investment coupled with the provision of national geo-scientific databases essential for attracting competitive exploration and mining (Draft Minerals Policy of Namibia, MME).

It is against this background that **Moses Sasamba** (herein referred to as the proponent) has decided to conduct exploration activities for **Base and Rare Metals, Dimension Stone, Industrial Minerals, and Precious Metals** on Exclusive Prospecting Licence (EPL 6776) located in the Arandis district. The laws of the Republic of Namibia are clear regarding this, that it requires an Environmental Clearance Certificate. Such a certificate is issued in line with the Environmental Management Act (2007). The proponent has appointed SS Consultants to carry out an Environmental Impact Assessment (EIA) study to obtain an Environmental Clearance Certificate (ECC) as per the requirements of the Ministry of Mines and energy (MME) and the Ministry of Environment, Forestry and Tourism (MEFT) in terms of mining activities and clearance of land.

In this respect, SS Consultants has then undersigned **OTAH Consultancy cc** to provide an archaeological and cultural heritage impact assessment as envisaged under the provisions of the National Heritage Act (27 of 2004). This report presents the results of an archaeological/heritage field survey of the area, focusing on EPL 6776. The report suggests recommendations and mitigation measures that would be in keeping with the applicable laws and policies governing the preservation of archaeological remains in Namibia.

Due to the destructive tendency of such exploration activities, which may include earth-moving/land alteration operations, it is a pre-requisite to conducting an Archaeological and/ or Heritage Impact Assessment (AIA) as obligated by the National Heritage Act, Act No. 27 of 2004. The main thrust of the provisions of the aforementioned legislation is to protect and salvage cultural/archaeological and environmental resources from potential destruction resulting from mining activities.

The Archaeological and Heritage Impact Assessment (AHIA) was carried out on EPL 6776 to fulfil the following objectives:

- a. Identify and document cultural heritage resources within the EPL area according to the prescriptions of the National Heritage Act of 2004.
- b. Assess the significance and sensitivity of identified cultural heritage resources.
- c. Evaluate potential impacts of proposed activities on cultural heritage resources.
- d. Propose mitigation measures to minimize or eliminate adverse impacts.
- e. Provide recommendations for the management and conservation of significant cultural heritage resources if found.

### **Project Description**

**Moses Sasamba** applied for an exclusive prospecting licence from the Ministry of Mines and Energy (MME) to execute exploration activities. The project area is made up of one EPL license which may be converted into a mining license (s) if an economically viable deposit is discovered and the licensing requirements are met. The proposed exploration activities will involve both non-invasive and invasive exploration methods. Non-invasive exploration methods usually include remote sensing, geological field mapping, ground geophysical survey and surface soil and rock sampling. whereas invasive exploration methods include techniques such as reverse circulation or diamond drilling and pitting/trenching. Non-invasive exploration activities will be undertaken first in order to define the need for more invasive activities. Should the results from the non-invasive activities be positive the detailed site-specific drilling, trenching, and sampling will be undertaken.

## Project Location

The proposed exploration activities will be carried out on EPL 6776. The mineral license is located south of Arandis. The project covers a surface area of 7005.2376 hectares. The main land use of the area within and outside the EPL is predominated by state land.

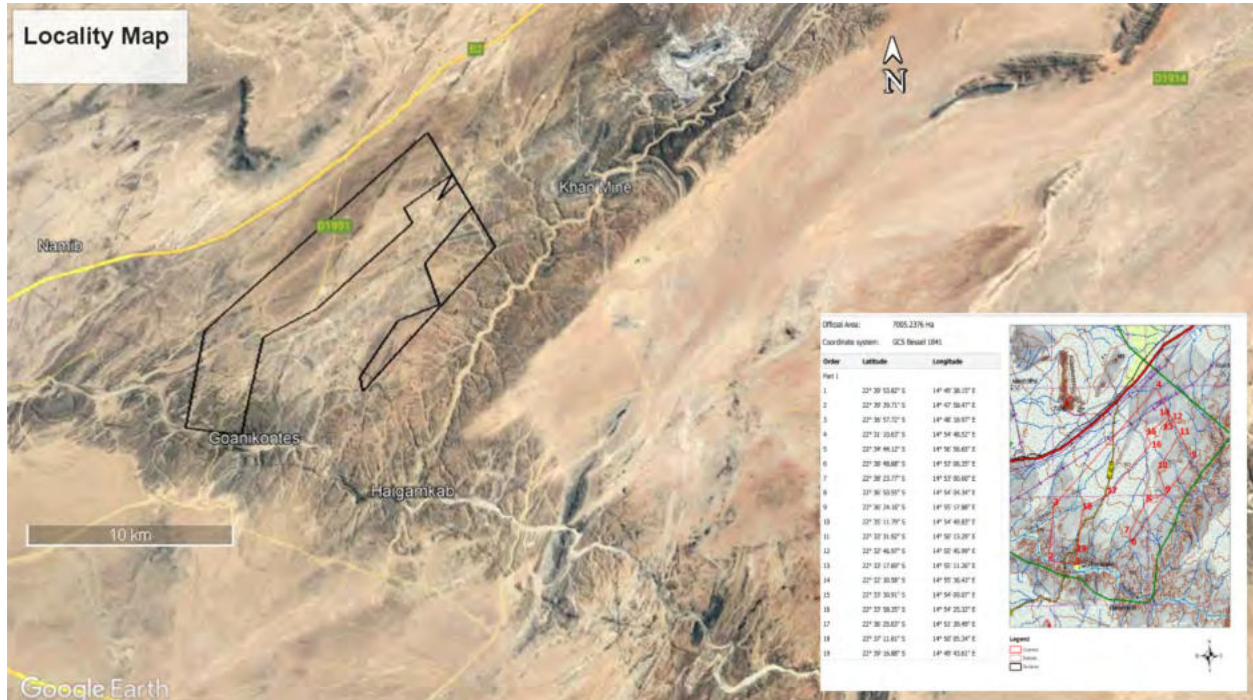


Figure 1: Locality map of EPL 6776 (Map credits: SS Consultants, 2023).

## 2.0 Legislations

In most cases where the aspect of mining is involved, cultural and archaeological evidence located within areas earmarked for development or mining usually faces the danger from complete destruction. The legal instrument for the protection of heritage sites and objects in Namibia is the National Heritage Act (No. 27 of 2004).

To ensure that this unique heritage of our past is protected and well documented, the National Heritage Act 27 of 2004 and EIA Terms of Reference concerning the assessment of impacts of the proposed development on the cultural and heritage resources associated with the receiving environment shall be used to guide the exploration exercise. The statutory mandate of heritage impact assessment studies is to encourage and facilitate the protection and conservation of

archaeological and cultural heritage sites, following the provisions of the National Heritage Act, Act 27 of 2004 and Environmental Management Act (EMA) No. 7 of 2007 and its 2012 EIA Regulations. The National Heritage Act (Section 1 of 2004) defines heritage resources as those of geological and rare objects; paleontological; archaeological; ethnographic objects; historical objects/sites; maritime heritage; built monuments; mining sites as well as objects of scientific interests.

### **3.0 Approach to study**

#### **3.1 Terms of Reference**

The main task of the archaeological survey and assessment was to identify and record all sensitive archaeological sites within the limits of EPL 6776 that could be negatively affected by the proposed exploration activities by Moses Sasamba. The assessment also intended to establish heritage significance of possible resources and assess their vulnerability, estimates the extent of the possible impacts and establish mitigation measures. This study is intended to satisfy the requirements of the Environmental Management Act (7 of 2007), and those of the National Heritage Act (27 of 2004).

#### **3.2 Methodology**

This Heritage & Archaeological Impact Assessment employed a combination of literature reviews, field surveys, interviews with local communities, and consultation with relevant stakeholders. These methodologies are standards for environmental and heritage assessment in Namibia, which are in line with international best practices. Desktop information was fashioned from current and existing heritage archives. These were taken from existing heritage records comprising those from National Heritage Council, archaeological GIS spatial data and record that has been substantially exposed during the last decades, by a series of detailed archaeological assessments carried out during the mineral investigation and mining operations, and the development of infrastructure required by these operations. These sources were then supplemented by site visit field surveys within the boundaries of EPL 6776 and beyond. Sensitivity and susceptibility rating scales, aimed at establishing the nature of vulnerability and sensitivity of heritage resources that are likely to be impacted by the exploration activities, were adopted as per assessment objectives. Their vulnerability to the disturbance in the course of exploration that includes drilling was evaluated according to parallel 0-5 scales, abridged in Table 2.

*Table 2: Rating scales for the assessment of archaeological significance and vulnerability as developed by the QRN.*

<b>Significance Rating</b>	
<b>0</b>	No heritage significance
<b>1</b>	Disturbed or secondary context, without diagnostic materials
<b>2</b>	Isolated minor finds in undisturbed primary context, with diagnostic materials
<b>3</b>	Archaeological and paleontological site (s) forming part of an identifiable local distribution or group
<b>4</b>	Multi-component site (s), or central site (s) with high research potential
<b>5</b>	Major archaeological or paleontological site (s) containing unique evidence of high regional significances
<b>Vulnerability Rating</b>	
<b>0</b>	Not vulnerable
<b>1</b>	No threat posed by current or proposed development activities
<b>2</b>	Low or indirect threat from possible consequences of development (e.g., soil erosion)
<b>3</b>	Probable threat from inadvertent disturbance due to proximity of development
<b>4</b>	High likelihood of partial disturbance or destruction due to close proximity of development
<b>5</b>	Direct and certain threat of major disturbance or total destruction

Concerning each specific source of impact risks to heritage resources, the assessment methodology estimated the extent of the impact, the magnitude of impact, and the duration of these impacts. The scales of estimation are set out and explained in Table 3.

*Table 3: Assessment criteria for the evaluation of cumulative impacts on archaeological sites developed by the QRN.*

<b>CRITERIA</b>	<b>CATEGOR Y</b>	<b>DESCRIPTION</b>
<b>Extent or spatial influence of impact</b>	<b>National</b> <b>Regional</b> <b>Local</b>	Within Namibia Within the Region On site or within 200 m of the impact site impact
<b>Magnitude of impact (at the indicated spatial scale)</b>	<b>High</b> <b>Medium</b> <b>Low</b> <b>Very Low</b> <b>Zero</b>	Social and/or natural functions and/ or processes are severely altered Social and/or natural functions and/ or processes are notably altered Social and/or natural functions and/ or processes are slightly altered Social and/or natural functions and/ or processes are negligibly altered Social and/or natural functions and/ or processes remain unaltered
<b>Duration of impact</b>	<b>Short Term</b> <b>Medium Term</b> <b>Long Term</b>	Up to 3 years 4 to 10 years after construction More than 10 years after construction



*Table 4: Reversibility Rating Criteria*

<b>Reversibility Ratings</b>	<b>Criteria</b>
Irreversible	The impact will lead to an impact that is permanent.
Reversible	The impact is reversible, within a period of 10 years

#### **4.0 Assumptions and Limitations**

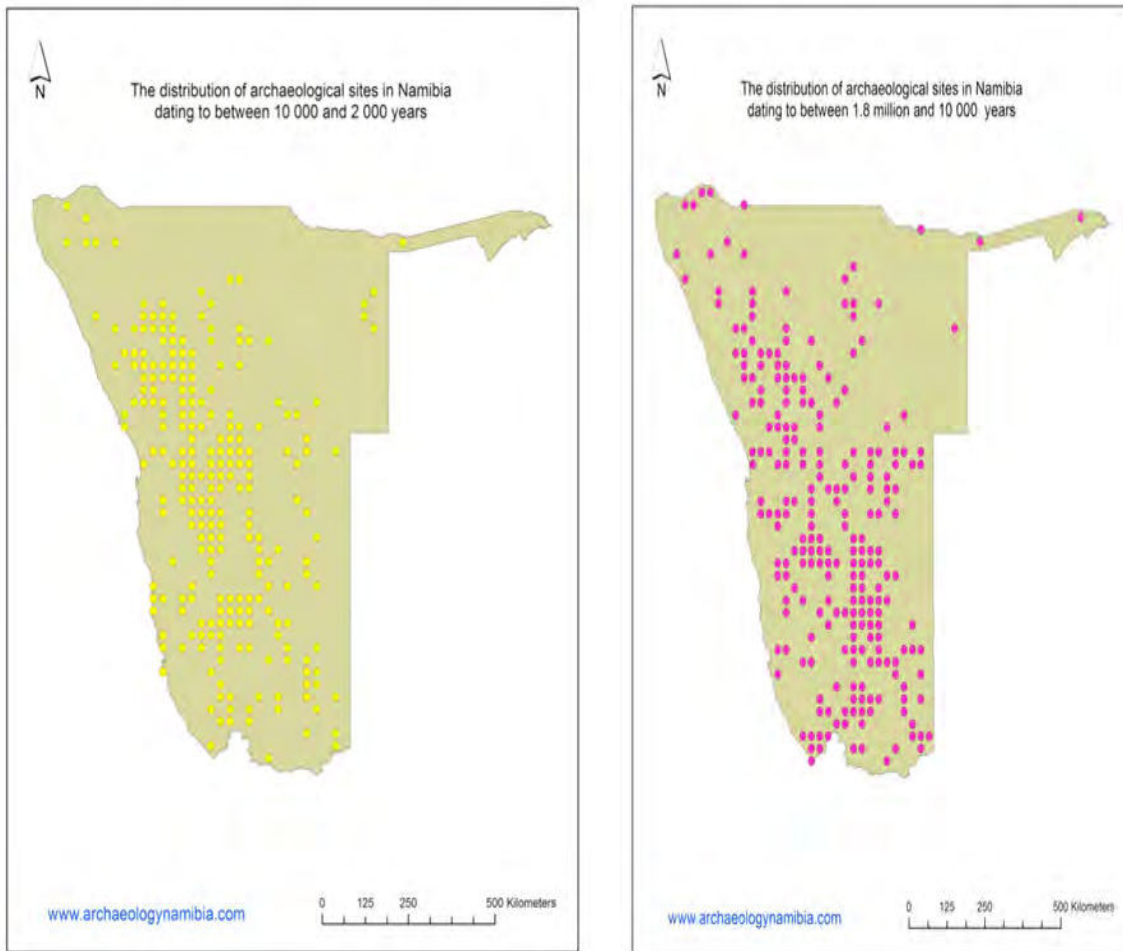
This heritage impact assessment described here relies on desktop studies and supported by field survey assessment undertaken and public consultations and all interested and affected parties through oral interviews. It is possible to predict the likely occurrence of further archaeological sites with some accuracy and to present a general statement of the local archaeological site distribution. Nevertheless, it is critical as a precautionary measure and best practice, we are recommending the proponent to strictly follow the chance finds procedure as the project progresses should any archaeological objects be found during the exploration process. The Chance finds procedure is outlined in the National Heritage Council booklet, (2017) and the proponent will be supplied with a copy. Failure to follow and implement such procedure will result in appropriate action being taken against the proponent as per the National Heritage Act No. 27 of 2004.

#### **5.0 Brief heritage setting of the Project Area**

The western section of Erongo Region of Namibia has a well-preserved archaeological record with evidence of human occupation spanning the last 800 000 years. The extent and extraordinary richness of this material record have been substantially revealed during the last decade, by a series of detailed archaeological assessments carried out in the course of mining and mining operations, and the development of infrastructure required by these operations.

The region has significant rich heritage resources manifested in the best-known rock art areas such as the Brandberg Massif in Damaraland (2697m – mainly painting sites), and Twyfelfontein, a UNESCO World Heritage rock art site, also in Damaraland. Both of these sites are in the Erongo region in North-western Namibia. Another important painting area is the Erongo Mountains south-

east of the Brandberg. One of the richest rock Painting areas/sites in the subcontinent, the Brandberg has a large number of sites scattered across its 750 sq. km which are mostly the work of ancestral Bushman/San hunter-gatherers and may be up to 2,000 years old or more in some cases. Meanwhile, Twyfelfontein is one of the most important rock engraving sites in southern Africa with evidence of human presence throughout most of the last 500 000 years to the last Millennia.



**Figure 2: The general distribution of archaeological sites in Namibia from 1.8 million to the last 2 000 years, Maps Credit: Quaternary Research Services Namibia.**

### 5.1 Results of Desktop Research

Information from the NHC shows that the project area falls under the cultural landscape occurring in Erongo Region. The national monuments list has 37 national monuments recorded within Erongo Region. Table 3 shows details of the part of the national monuments occurring in the same region as the project and are recorded in the National Monuments Register.

**Table 5: National Monuments Recorded in National Database**

Site Name	Information on Site Index Card
Ameib	'Philipp's Cave' with rock art drawings.
Badges 158 Farm	Regimental badges laid out in stone of 2 Durban Light Infantry, dating from 1915
Brandberg.	Area of 450km <sup>2</sup> of archaeological, ecological and geomorphological importance
Bushman Paradise Cave	Was 'one of the finest collections of rock art in Namibia'. (Spitzkoppe
Cape Cross	RMCsica (1895) of original stone pillar left by Diogo Cão in 1484. First European contact with Namibia.
Erongo Farm	Rock paintings at six sites
Karibib	Rösemann building façade, erected in 1900
Karibib	Quartermasters Stores. Built in 1911
Karibib	Kubas Railway Station. Built in 1900
Karibib	Haus Woll. Built in 1900s
Karibib	Hotel Zum Grünen Kranze. Built in 1913

Karibib	Erf 46 and the Hälbich buildings. Built in 1900s
Karibib	Kaiserbrunnen (Imperial well) - well, water reservoir and drinking trough. Built in 1906

**NB. The above-mentioned sites do not occur on the area of interest but in the same cultural landscape regionally.**

Stone Age archaeology is prevalent in the larger geographical area such that archaeologists who have previously worked on the area documented a large number of Stone Age sites in the region. As such it is not surprising to come across stone tools in the region. Banded ironstone is known to have been a favored and desirable raw material for making stone artefacts and occurs on a number of sites that have been documented by the Archaeologist and others throughout the Erongo Region. Most of the tools are spread very thinly and unevenly over the surrounding region, but a low-density scatter of tools can also be noticed. Previous researches in the region shows that Early Stone Age is very well represented at sites. Such occupations are within the framework of human-environment interaction and associated socio - economic changes of prehistoric hunter-gatherer occupations and nomadic pastoralists, and their interaction with early European settlers.

## **6.0 Fieldwork Findings and Observations**

A reconnaissance field survey was carried out to identify, record, and assess cultural heritage resources, including archaeological sites, rock art, and historical structures within the footprints of EPL 6776. The field survey was aimed at recording and locating the most important archaeological features (if found) that might be negatively impacted by the proposed exploration activities within the boundaries of EPL 6776 and beyond. This survey was also meant to come up with mitigation measures that will safeguard and protect such heritage resources.

The field survey involved a combined approach which included foot survey within and around the boundaries of EPL 6776 and interviews with some community members that are living around the area of interest. The detailed foot survey of the area surrounding the footprints of EPL 6776 yielded one archaeological evidence within the boundaries of the EPL 6776. The site location is set out below together with brief remarks on their significance. Since no target areas for explorations were provided, the vulnerability of the sites is given in terms of the nature of the exploration methods

which tend to be mostly destructive. Hence, the identified sites require mitigation measures to be taken to ensure their conservation.

*Table 6: findings at the proposed exploration site for EPL 6776*

<b>Heritage resources</b>	<b>Status/findings</b>	<b>Level of impact by proposed explorations</b>
Buildings, structures, and places of cultural significance	None	None
Areas to which oral traditions are attached or which are associated with intangible heritage	None	None
Historical buildings	Farm houses	Low
Landscapes and natural features of cultural significance	None	None
Archaeological and paleontological sites	None	None
Graves and burial grounds	Burial grounds	High
Movable objects	None	None

## 6.1 Detailed field findings

### Site 1: Burial site

**Site coordinates:** 22° 40' 11'' S 14° 48' 57''

**Description** A burial site with 18 graves, the graves are partially fenced off. 16 of the graves are marked with stones and 2 are marked with tombstones.

**Significance rating:** 4

**Vulnerability rating:** 2 (the burial site is partially demarcated although the fence is not stable, the burial site is in close proximity of the farm house).

**Records:** Photographs and fieldnotes

**Reversibility rating:** Irreversible

**Condition assessment:** Sensitive



*Figure 3: A burial site located a few meters from the farm house (Photo credit: Author 2024).*



*Figure 4: A burial site located a few meters from the farm house (Photo credit: Author 2024).*

## 6.2 Random Field photographs



*Figure 5: Abandoned structure in close proximity of the EPL (Photo credit: Author 2024).*





*Figure 6: The receiving Landscape of EPL 6776 (Photo credit: Author 2024).*



*Figure 7: Community engagement (Photo credit: Author 2023).*



*Figure 8: The receiving Landscape of EPL 6776 (Photo credit: Author 2024).*

## **7.0 Recommendations, Mitigation measures and Conclusions**

### **7.1 Management Recommendations**

At this stage it is very important that the proponent is made aware of the fact that all archaeological and cultural heritage sites in Namibia are protected under the National Heritage Act (27 of 2004). When prospecting is underway, the proponent should make sure that all personnel and contractors are aware of the protected nature of archaeological sites as well as the legal obligation to report any new finds to the National Heritage Council as soon as possible. The proponent should take steps to avoid either direct damage to the sites or to their immediate landscape setting.

## 7.2 Mitigation measures

Based on the desktop assessment and subsequent field investigation highlighted in this report appropriate impact mitigation measures to be adopted in the course of the project would include:

- a) The sensitive site recorded in this report should be demarcated off during the exploration phase, this site's locations must also be incorporated within the project Environment Management Plan and GIS.
- b) Sensitive site to be cordoned off during the exploration phase, using steel posts (fence droppers) and high visibility barrier mesh (this material to be removed following exploration to reduce visibility of the sites).
- c) Site inspections by the heritage council on the cordoned off site to ensure the proponent abide by the conditions as set by the heritage council is highly recommended.
- d) The foot print impact of the proposed exploration activities should be kept to minimal, to limit the possibility of encountering chance finds within servitude.
- e) The Environmental Management Plan is to ensure that all the existing archaeological reference guidelines (Chance Find Procedure Guideline by NHC (2017) is shared with the proponent for guidance. So that, any buried archaeological remains that might be discovered during the prospecting phase are handled following the provisions of Part V Section 46 of the National Heritage Act (27 of 2004).
- f) The proponent should show overall commitment and compliance by adapting a zero-damage approach.
- g) All existing and new vehicle tracks should be diverted away from the burial grounds. The proponent, in consultation with the local community members should fence off the aforementioned burial site.

### **7.3 Conclusions**

The literature review and field survey confirmed that the proposed project area is situated within a larger contemporary cultural landscape dotted with settlements with long local history and is likely to be of archaeological significance. Field survey established that the project area might have hidden or buried archaeological materials that might be encountered during the exploration activities, hence a 'Chance Find Procedure' is highly recommended. The proposed exploration activities will affect an area of relatively high archaeological/heritage significance, and the project may threaten some archaeological assets worthy of mitigation measures. The present report provides a Phase 2 survey and assessment of the project and will be followed by a Phase 3 mitigation exercise if required.

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## Appendix 1)

The proponent is advised to implement the following management actions on the way forward:

### 1. Chance Finds Procedure (CFP) management guideline:

Areas of proposed development or mining activities 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 people.

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.

#### A. Responsibilities:

**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, advice management, and recovers remain

#### B. Procedure:

Action by the person (operator) identifying archaeological or heritage material

- If operating machinery or equipment: **stop work**
- Identify the site with flag tape
- Determine GPS position if possible
- Report findings to foreman

- C. Action by foreman:
- Report findings, site location and actions are taken to the superintendent
  - Cease any works in the immediate vicinity
- D. Action by superintendent
- Visit the site and determine whether work can proceed without damage to findings;
  - Determine and mark the exclusion boundary
  - Site location and details to be added to the Archaeological Heritage database system
- E. Action by archaeologist
- Inspect site and confirm the addition to AH database system;
  - Advise National Heritage Council and request a permit to remove findings;
  - Recovery, packaging and labeling of findings for transfer to National Museum
- F. In the event of discovering human remains
- Actions as above;
  - Field inspection by archaeologist to confirm that remains are human;
  - Advise and liaise with NHC Guidelines; and
  - Recovery of remains and removal to National Museum or National Forensic Laboratory, or as directed.



## Appendix 2 Archaeological and Heritage Monitoring Measures

SITE REF	HERITAGE ASPECT	POTENTIAL IMPACT	MITIGATION MEASURES	RESPONSIBLE PARTY	PENALTY	METHOD STATEMENT REQUIRED
Chance Finds (Archaeological and Burial Sites)	General area where the proposed project is situated is a historic landscape, which may yield archaeological, cultural property, remains. There are possibilities of encountering unknown archaeological sites during subsurface construction work and exploration phase which may disturb previously unidentified chance finds.	<p>Possible damage to previously unidentified archaeological and burial sites during exploration phase.</p> <ul style="list-style-type: none"> <li>• Unanticipated impacts on archaeological sites where project actions inadvertently uncovered significant archaeological sites.</li> <li>• Loss of historic cultural landscape;</li> <li>• Destruction of burial sites and associated graves</li> <li>• Loss of aesthetic</li> </ul>	<p>In situations where unpredicted impacts occur exploration activities must be stopped and the heritage authority should be notified immediately. Where remedial action is warranted, minimize disruption in exploration scheduling while recovering archaeological data. Where necessary, implement emergency measures to mitigate.</p> <ul style="list-style-type: none"> <li>• Where burial sites are accidentally disturbed during exploration, the affected area should be demarcated as no-go zone by use of fencing during exploration, and access thereto by the exploration team must be denied.</li> <li>• Accidentally discovered burials in development context should be salvaged and rescued to safe sites as may be directed by relevant</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor /</li> <li>• Project Manager</li> <li>• Archaeologist</li> <li>• Project Environmental Control Officer (ECO) or Site Manager</li> </ul>	Fine and or imprisonment under the National Heritage Act	<p>Monitoring measures should be issued as instruction within the project EMP.</p> <p>PM/EO/Archaeologists Monitor exploration activities on sites where such exploration projects commence.</p>

		<p>value due to exploration work</p> <ul style="list-style-type: none"> <li>• Loss of sense of place</li> </ul> <p>Loss of intangible heritage value due to change in land use</p>	<p>heritage authority. The heritage officer responsible should secure relevant heritage and health authorities' permits for possible relocation of affected graves accidentally encountered during exploration work.</p>			
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### Appendix 3) Archaeological Management Plan (AMP)

#### Objectives of Archaeological Management Plan (AMP)

- Protection of archaeological sites and land considered to be of cultural value.
- Protection of known physical cultural property against vandalism, destruction and theft; and
- The preservation and appropriate management of new archaeological finds should these be discovered during exploration and mining operations.

#### Archaeological Management Plan (AMP)

Archaeological Management Plan (AMP)								
Area and Site	Mitigation Measures	Phase	Timeframe	Responsibility party for implementation	Monitoring party	Accountable party	Monitoring system (performance indicators)	Target
	If potentially human remains, NHC and Namibian Police should be contacted	Throughout the project	The project life	Operational staff or any person employed by the proponent	Site Manager (SM)	Proponent	Checklist/Progress report	Place Ordinance 27 of 1966
<b>NB! The procedure to be followed during the operation, decommissioning and rehabilitation phases are the same as they were during the exploration phase.</b>								

