OMAVI
+264 81 478 6303
info@omavi.com.na
Geotechnical & Geo-Environmental Consultants | Reg. No. cc/2018/ 08788

**Date: 16 December 2020**

The Environmental Commissioner

Department of Environmental Affairs and Forestry

Ministry of Environment, Forestry and Tourism

P. O. Box 13306

Windhoek, Namibia

Attention: Mr. Timoteus Mufeti

Dear Sir

**Re: Archaeological Impact Assessment as a Requirement to the Consent Letter from the National Heritage Council (NHC) - Environmental Clearance Certificate (ECC) Application (APP-001868) for the Proposed Exploration of Dimension Stone and Industrial Minerals on Exclusive Prospecting License (EPL) 6139 near Karibib in the Erongo Region, Namibia**

OMAVI Geotechnical & Geo-Environmental Consultants cc (the Environmental Consultant) has been appointed by Agulhas Mineral Resources cc (the Proponent) to apply for **the Environmental Clearance Certificate (ECC)** and conduct an Environmental Scoping Assessment for **the Proposed Exploration Dimension Stone and Industrial Minerals on Exclusive Prospecting License (EPL) 6139 near Karibib in the Erongo Region, Namibia** in accordance with the Environmental Management Act (EMA) (No. 7 of 2007) and the corresponding list of activities requiring an ECC (GN No. 29 GG No. 4878).

One of the documents required to accompany the Scoping Report and Environmental Management Plan (EMP), among other documents is a ''***Consent letter from the National Heritage Council (NHC) in relation to archaeological heritage landscape protection***''. Upon consultation with the NHC, we were informed that a consent letter would only be issued upon evaluation of an Archaeological Assessment Report by a qualified Archaeologist.

Consequently, OMAVI Consultants appointed Mr. Henry Nakale (an experienced and qualified Archaeologist) to carry out the required Archaeological Impact Assessment (AIA) for the proposed EPL site. An AIA for the site area was undertaken in October 2020, finalized on 1 November 2020 and an AIA Report compiled by the Archaeologist.

The AIA Report was submitted to the NHC on the 5th of November 2020 for evaluation and consideration of the issuance of the required Consent Letter from the NHC.

**Accompanying this cover letter are:**

- Copy of the Email communication with the National Heritage Council of Namibia (NHC)
- Archaeological Impact Assessment (AIA) Report for EPL 6139 submitted to the NHC.

Should you require further information on this matter please do not hesitate to contact us on the details provided above and below

Yours Sincerely,

Mr. Etuna Kanime or Ms. Fredrika Shagama (Environmental Assessment Practitioners)

**OMAVI Geotechnical & Geo-Environmental Consultants cc**

**Email:** info@omavi.com.na

**Mobile:** +264 81 478 6303 OR +264 81 826 4867

## Email communication to the National Heritage Council (NHC): Archaeology Report for EPL 7008

Archaeological Assessment Reports to the EIA for EPL 6139 (Exploration for Dimension Stone & Industrial Minerals) and EPL 7008 (for Dimension Stone Exploration) near Karibib in the Erongo Region Inbox ×

**Fredrika Shagama** <fshagama@gmail.com>
to rho1, rho2, luciapermitsnhc, info, Erica, bcc: Giesberta, bcc: me

Thu, 5 Nov, 07:54

Good morning,

With reference to the email communication we sent to you on the 10th of September 2020 regarding the ongoing Environmental Assessment of the proposed exploration activities for dimension stone and industrial minerals on Exclusive Prospecting License (EPL) 6139 and EPL 7008 (for the exploration of dimension stone only) near Karibib in the Erongo and as response to the National Heritage Council of Namibia letter dated 18 September 2020, the Archaeological Assessments for the two EPLs have been completed. The attached files are the two Reports containing the findings of these Assessments/Studies for your reference and evaluation.

Please note that there was also a request for an Archaeological Assessment to be done for the third EPL, i.e. EPL 7241. However, due unforeseen circumstances such as ongoing arrangements with landowners to access the affected farms, the Archaeological Study for this EPL is not yet completed. Once it is completed, and the Report compiled, we will send it through for your evaluation too.

Best regards,
Fredrika for OMAVI Geotechnical & Geo-Encvironmental Consultants
Mobile: +264 81 407 5536 OR +264 81 826 4867

**2 Attachments**


EPL 6139 AIA Final...


EPL 7008 AIA Final...

4

**Lucia Permits NHC**
Received with thanks.

Wed, 11 Nov, 08:49

# PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT REPORT FORPROPOSED EXPLORATION ACTIVITIES OF DIMENSION STONE AND INDUSTRIAL MINERALS ON EXCLUSIVE PROSPECTING LICENCE (EPL) 6139 IN ERONGO REGION, NAMIBIA.

**Compiled by**

**HENRY NAKALE**
**HENRY CHIWAURA**
**ELIOT MOWA**

**Compiled for:**
**Omavi Geotechnical and Geo-Environmental Consultants**

**Tel: +264818264867**

**Email:infor@omavi.com.na**

**Document Information**

| Item | Description |
|---|---|
| Proposed development and location | Agulhas Mineral Resources proposes to undertake exploration on the Exclusive Prospecting Licence (EPL) 6137 in the Erongo Region. The EPL is located 30km south-southeast of Karibib and covers a surface area of 4995 hectares. The affected farms are Port1 (A Portion of A) of Okongava N.72 to the north, Remainder of Farm Neu-Schwaben No. 148 to the west and Portion 2 of Farm No. 148 to the south. |
| Title | Proposed Exploration activities of Dimension Stone and Industrial Minerals on Exclusive Prospecting Licence (EPL) 6139 in Erongo Region, Namibia: Archaeological and Heritage Impact Assessment Report |
| 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 exploration activities |
| 1:50 000 Topographic Map | |
| Coordinates | "22,090, 15,012" |
| Municipalities | Karibib |
| Predominant land use of surrounding area | Farming |
| Developer | Agulhas Mineral Resources |
| Heritage Consultant | Henry Nakale, Henry Chiwaura and Eliot Mowa |
| Date of Report | 1 November 2020 |
| Contact person | Henry Nakale +264816680633 |
| | |
| Author(s) identification | Henry Nakale, Henry Chiwauraand Elliot Mowa (Archaeologists and Heritage specialist) |
| Project Number | 001 |

## Copyright

**Authorship**: This A/HIA Report has been prepared by Messers Henry Nakale, Henry Chiwaura and Elliot Mowa (Professional Archaeologist). The report is for the review of the National Heritage Council of Namibia.



**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 proposed exploration project being proposed by Agulhas Minerals Resources.

Signed by

## Acknowledgement

The authors acknowledge Omavi Geotechnical and Geo-Environmental Consultants for their assistance with project information as well as responding to technical queries related to the project.

**TABLE OF CONTENTS**

**TABLE OF PLATES [PHOTOGRAPHS]**

**TABLE OF FIGURES**

## EXECUTIVE SUMMARY

This Archaeological and Heritage Impact Assessment (AIA/HIA) Report has been prepared to address requirements of the National Heritage Act, 27 of 2004. The study was commissioned by **Omavi Geotechnical and Geo-Environmental Consultants** to conduct this Archaeological and Heritage Impact Assessment (AIA/HIA) Study for the proposed exploration. The proposed exploration is located in the Erongo Region of Namibia. This report includes an impact study on potential archaeological and cultural heritage resources that may be associated with the proposed exploration and exclusive prospecting license (EPL) on 6139 site. This study was conducted as part of the specialist input for the Environmental Impact Assessment exercise. The proposed development consists of exploration activities of Dimension Stone on EPL 6139 in the Erongo Region. The project information has been passed to research team by Omavi Geotechnical and Geo-Environmental Consultants. Analysis of the archaeological, cultural heritage, environmental and historic contexts of the study area predicted that archaeological sites, cultural heritage sites, burial grounds or isolated artefacts were likely to be present on the affected landscape. The field survey was conducted to test this proposition and verify this prediction within the proposed exploration activities. The general project area is predominantly farming area.

The report makes the following observations:

- The findings of this report have been informed by desktop data review, field survey and impact assessment reporting which include recommendations to guide heritage authorities in making decisions with regards to the proposed project.
- Most sections of the project area are very accessible and the field survey was effective enough to cover all sections of the project receiving environs. However, some small portions of the proposed exploration site had limited access rocky outcrops.
- The immediate project area is predominantly agricultural (grazing).

The report sets out the potential impacts of the proposed development on heritage matters and recommends appropriate safeguard and mitigation measures that are designed to reduce the impacts where appropriate. The Report makes the following recommendations:

- ❖ The mining exploration teams must be inducted on the possibility of encountering archaeological resources that may be accidentally exposed during subsurface mining prior to commencement of work on the site in order to ensure appropriate mitigation measures and that course of action is afforded to any chance finds.
- ❖ If archaeological materials are uncovered, work should cease immediately and the National Heritage Council be notified and activity should not resume until appropriate management provisions are in place.
- ❖ The findings of this report, with approval of the National Heritage Council, may be classified as accessible to any interested and affected parties within the limits of the legislations.

This report concludes that the impacts of the proposed mining exploration has potential to adversely affect the cultural object and landscape therefore appropriate measures involving avoiding exploration near the identified historical and cultural object is recommended.

## ABBREVIATIONS

| | |
|---|---|
| **AIA** | Archaeological Impact Assessment |
| **ECO** | Environmental Control Officer |
| **EAP** | Environmental Assessment Practitioner |
| **EIA** | Environmental Impact Assessment |
| **EM** | Environmental Manager |
| **EMP** | Environmental Management Plan |
| **HIA** | Heritage Impact Assessment |
| **LIA** | Late Iron Age |
| **NHA** | Nation Heritage Act, Act 27 of 2004 |
| **SM** | Site Manager |
| **NHCN** | National Heritage Council of Namibia |
| **NIMA** | Neu-Schwabben Independent Miners Association |

## KEY CONCEPTS AND TERMS

**Periodization** Archaeologists divide the different cultural epochs 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, ecofacts 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 authorisation 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 authorisation 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 minimising 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 INTRODUCTION

## Background

This Archaeological and Heritage Impact Assessment (A/HIA) Report has been prepared by Henry Nakale, Henry Chiwaura and Eliot Mowa for the purpose of proposed exploration activities of Dimension Stone on EPL 6139, Erongo region, Namibia. This report details the field study, method of study and results of the study as well as discussion on the anticipated impacts of the proposed exploration as is required by the National Heritage Act, Act 27 of 2004 and the environmental Act of 2007. It focuses on identifying and assessing potential impacts on archaeological resources as well as on other physical cultural properties including historical heritage resources in relation to the proposed exploration activities. Heritage specialists undertook the assessments, research and consultations required for the preparation of the report comprising of archaeological and heritage impacts for the purpose of ensuring that the cultural environmental values are taken into consideration and reported into the EIA processes.

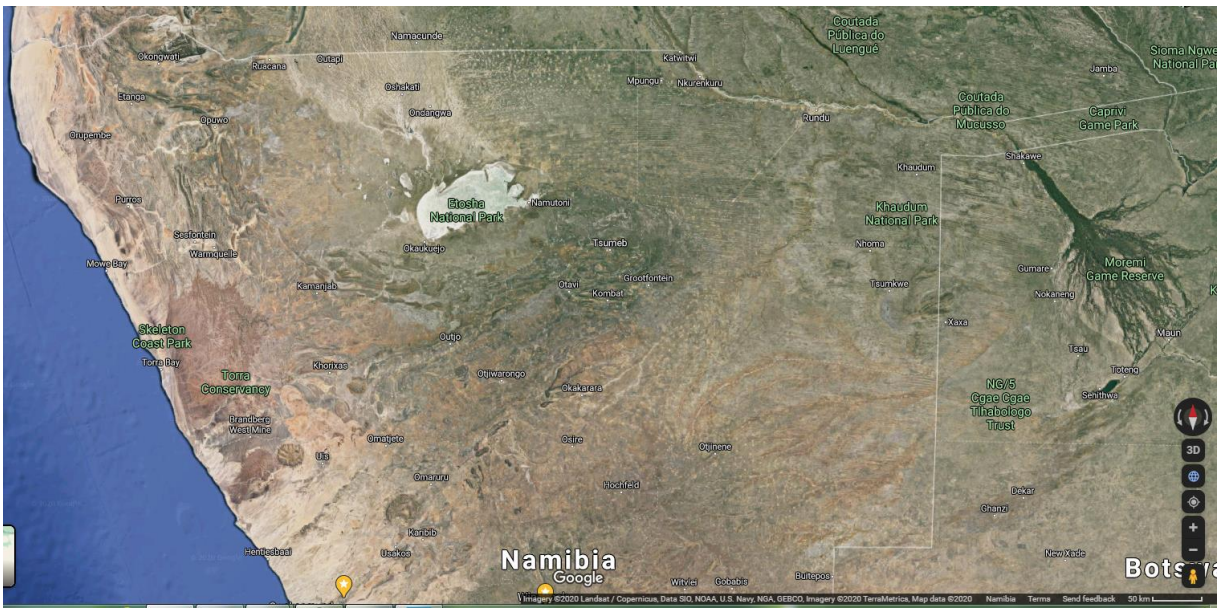
The study was designed to ensure that any significant archaeological or cultural physical property or sites are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the proposed development. The assessment includes recommendations to manage the expected impacts of the proposed explorations. The report includes recommendations to guide heritage authorities in making appropriate decision with regards to the environmental approval process for the proposed exploration. The report concludes with detailed recommendations on heritage management associated with the exploration development work. Omavi an independent consulting firm, conducted the assessment; research and consultations required for the preparation of the archaeological and heritage impact report in accordance with its obligations set in the Environmental Act of 2007as well as the environmental management legislations.

In line with National Heritage Act guidelines, the report provides:

1) Management summary
2) Methodology
3) Information with reference to the desktop study
4) Map and relevant geodetic images and data
5) GPS co-ordinates
6) Directions to the site
7) Site description and interpretation of the cultural area where the project will take place
8) Management details, description of affected cultural environment, photographic records of the project area
9) Recommendations regarding the significance of the site and recommendations regarding further monitoring of the site.
10) Conclusion.

## Location of the proposed exploration activities

The proposed explorations are located 30km south-south east of Karibib and cover an area of 4995 hectares (see Figure 1). The proposed project will entail opening of the surface through open cast mining methods. This therefore include: use of •vehicle, machinery and equipment.



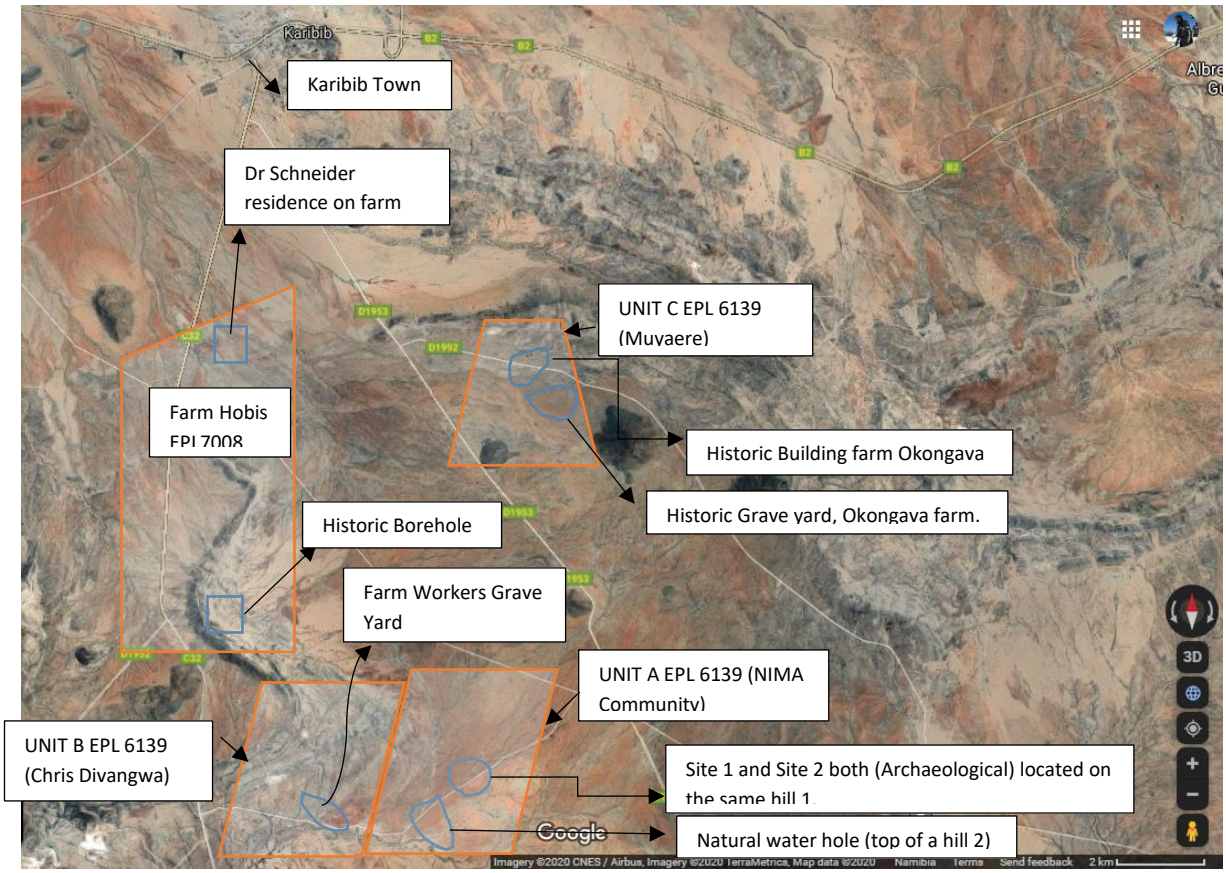




Figure 1: Map showing location of assessment area on behalf of proponent for EPL 6139 and EPL 7008 near the town of Karibib.

# 2 LEGAL REQUIREMENTS

This A/HIA report is a component of a broader Basic Assessment Report and addresses the requirements of the NHA Act 27of 2004 and EIA Terms of Reference in relation to the assessment of impacts of the proposed development on the cultural and heritage resources associated with the receiving environment. The statutory mandate of heritage impact assessment studies is to encourage and facilitate the protection and conservation of archaeological and cultural heritage sites, in accordance with the provisions of the National Heritage Act, Act 27 of 2004 and auxiliary regulations.

The legislations require that when constructing a linear development exceeding 300m in length or developing an area exceeding 5000 m² in extent, the developer must notify the responsible heritage authority of the proposed development and they in turn must indicate within 14 days whether an impact assessment is required.

## Terms of reference

The author(s) were instructed to conduct an AIA/HIA study addressing the following issues:

- Archaeological and heritage potential of exploration in the EPL area including any known data on affected areas;
- Provide details on methods of study; potential and recommendations to guide the NHC to make an informed decision with regards to authorization of the proposed development.

**PHOGRAPHIC PRESENTATION OF THE PROJECT SITE**

Figure 2 Local Mining exploration at a small scale by the community in UNIT A near historic mine work buildings (Photograph © by Author 2020)

Figure 3 Photograph of old mine workers buildings likely older than 60 years and considered as historic buildings at Unit A (NIMA Communal area) (Photograph © by Author 2020)

Figure 4 Nima communal area windmill currently unused due to apparent saline of water, is older than 60 years in the area and is classified as a historic building (Photograph © by Author 2020)

# 3 METHODOLOGY

The proposed exploration development requires clearance and authorisation from government compliance agencies including the heritage authority of National Heritage Council of Namibia. Key A/HIA objectives for this project are to:

- Fulfil the statutory requirements of the National Heritage Act, Act 27 of 2004.
- Identify and describe, (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed explorations. This study searched for sites and features of traditional historical, social, scientific, cultural and aesthetic significance within the affected study area; the identification of gravesites.
- Assess the significance of the resources where they are identified.
- Evaluate the impact thereon with respect to the socio-economic opportunities and benefits that would be derived from the proposed development.
- Provide guidelines for protection and management of identified heritage sites and places (including associated intangible heritage resources management that may apply).
- Consult with the affected and other interested parties, where applicable, in regard to the impact on the heritage resources the project's receiving environment.
- Make recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the heritage resources.
- Take responsibility for communicating with the National Heritage Act and other authorities in order to obtain the relevant permits and authorization with reference to heritage aspects.

In order to meet the objectives of the A/HIA Phase 1 study, the following tasks were conducted:(i) site file (ii) literature review, (iii) consultations with the affected communities, (iv) completion of a field survey and assessment and (v) analysis of the acquired data and report production. The following tasks were undertaken:

- Preparation of a predictive model for archaeological heritage resources in the study area.
- A review and gap analysis of archaeological, historical and cultural background information, including possible previous heritage consultant reports specific to the affected project area, the context of the study area and previous land use history as well as a site search;
- Field survey of the proposed exploration site within the study area, in order to test the predictive model regarding that heritage sites in the area;
- Physical cultural property recording of any identified sites or cultural heritage places;
- Identification of heritage significance; and
- Preparation of A/HIA report with recommendation, planning constraints and opportunities associated with the proposed development.

Walking surveys were conducted in order to identify and document archaeological and cultural sites within the proposed exploration site. Formal settlements, grazing lands; village roads and main road infrastructures, distribution and other auxiliary infrastructures dominate the affected project area. The entire project area was

accessible through a network of main roads, district roads and village tracks used to access the settlements. Although limited sections of ground surface were covered with grass and thick bushes, this did not hinder identification of possible archaeological sites in surveyed areas particularly those earmarked at the exploration site. Geographic coordinates were obtained with a handheld Garmin GPS global positioning unit. Photographs were taken as part of the documentation process during field study.

### 3.1 Assumptions and Limitations

The investigation has been influenced by the unpredictability of buried archaeological remains (absence of evidence does not mean evidence of absence) and the difficulty in establishing intangible heritage values. It should be noted that archaeological deposits (including graves and traces of archaeological heritage) usually occur below the ground level. Should artefacts or skeletal material be revealed at the site during commencement of the exploration, such activities should be halted immediately, and a competent heritage practitioner, NHC must be notified in order for an investigation and evaluation of the find(s) in accordance with the National Heritage council existing chance find procedure regulation. (see Chance Find Procedure). Recommendations contained in this document do not exempt the proponents from complying with any national, provincial and municipal legislation or other regulatory requirements, including any protection or management or general provision in terms of the NHA. The author assumes no responsibility for non-compliance with conditions that may be required by the NHA as outlined in this report.

The field survey did not include any form of subsurface inspection beyond the inspection of burrows, road cut sections, and the sections exposed by erosion. Some assumptions were made as part of the study and therefore some limitations, uncertainties and gaps in information would apply. It should however, be noted that these do not invalidate the findings of this study in any significant way:

- The exploration team to provide link and access to the proposed site, will use the existing access roads and there will be no exploration beyond the demarcated site.
- Prior to this report no excavations or sampling were undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on indicators observed on the surface. However, these surface observations concentrated on exposed sections such as road cuts and clear farmland.

### 3.2 Consultation

The team consulted some community members who confirmed that the proposed exploration site has been used as grazing land in the past and they are aware of some potential cultural sites or activity associated within the project area. The study team also consulted the NIMA deputy chairperson for any reference to heritage material in the project site. The consultation assisted in verifying the potential of any archaeological and heritage resources on the proposed development site.

# 4 CULTURE HISTORY BACKGROUND OF THE AREA

## Stone Age Archaeology

Introduction

As outlined already, the aim of the study is to locate and map archaeological sites/remains that may be impacted by the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

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 site the area. It is not surprising to come across stone tools in the region. Banded ironstone is known to have been a favoured 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 on the province shows that Early Stone Age is very well represented at sites.

The ESA is generally associated with the earlier Old industry (marked by crude coppers and other unifacial core tools), followed by the still large but better fashioned hand axes and cleavers of the Acheulean techno-complex (Deacon and Deacon 1999). The Faure smith Industry is characterized by a prepared core technology that produced both blades and points, making it transitional between the ESA and the MSA (~ 250 000 to 40-25 000 years ago) (Porat*et et al.* 2010; Wilkins and Chazan 2012; Walter *et al.* 2014). Until recently, the Faure smith Industry was poorly defined, being mostly identified based on the co-occurrence of Levallois points and hand axes (Beaumont and Vogel 2006: 224), and prepared cores, blades, and 'side-scrapers on flakes' (Beaumont 1990:79)

More technological and behavioural changes than those witnessed in the MSA, occurred during the LSA (~ 40-25 000, to recent as 100 years ago), which is also associated with Homo Sapiens (Barham and Mitchell 2008). For the first time there is evidence of people's activities derived from material other than stone tools (ostrich eggshell beads, ground bone arrowheads, small bored stones and wood fragments) (Deacon and Deacon 1999). The LSA people are also credited with the production of rock art (engravings and paintings), which is an expression of their complex social and spiritual beliefs (Parkington *et al.* 2008). The MSA is better understood as a flake-technological stage characterized by faceted platforms, produced from prepared cores, as distinct from the core tool-based ESA technology (Barham and Mitchell 2008). At Wonderwerk Cave, the MSA component was associated with pieces of haematite and several incised stone slabs, most with curved parallel lines that add to the behavioural shifts that went beyond stone tools and ushered in the appreciation of art (Beaumont and Vogel 2006).

## 5 RESULTS OF THE ARCHAEOLOGICAL/HERITAGE ASSESSMENT STUDY

The proposed exploration activities of Dimension Stone EPL 6139, Erongo Region, Namibia. The proposed exploration site has been established through consideration of biophysical, social, technical and cultural aspects. The Basic Assessment process will aim to provide a final site selection of the proposed exploration site is based on biophysical, social, cultural and technical considerations. The following section presents results of the archaeological and Heritage survey conducted at proposed exploration development site.

**Results**

| **Heritage resource** | **Status/Findings** | **Level of impact by explorations** |
|---|---|---|
| Buildings, structures, places and equipment of cultural significance | One homestead exists within the exploration. The field survey concluded that the building has got historical value (Figure 3). | Mild |
| Areas to which oral traditions are attached or which are associated with intangible heritage | None survives in the proposed area | None |
| Historical building | Okongava farm (Est 1903) (Figure 9) | None |
| Landscapes and natural features of cultural significance. | Old windmill at NIMA community. (Figure 4) | Mild |
| Archaeological and paleontological sites | Pot sherd scatters, grinding stone. (Figure 5 and Figure 6) | Severe |
| Graves and burial grounds | Identified a formal grave in the proposed exploration area. (Figure 7 and Figure 8) | Mild |
| Movable objects | None | None |

**Detailed findings**

Site 1

Hill shelter/ settlement - a local elderly community member who was instrumental in showing us the location of this place, indicated that, this place was used for firing pottery/or clay pots by the Damara/Nama's and San people. The soft rocks within the area were crushed and mixed with clay before firing it. The pieces of pottery sherds are as shinny as the type of stock found on this hill (see Figure 4).

It is by no doubt that the hill shelter settlement has archaeological objects (pottery) that probably dates to pre-colonial era. Further proof of human habitation around the shelter is in the form of:

- Evidence of smoke in the roof of the shelter and ash dumped near by the shelter.
- Habitation
- Pieces of pottery sherds scattered around this bolder and it is reported that the local or current settlers has removed some bigger pieces of pots for their personal use, although we couldn't locate any individual that could give us more information about the pieces that were looted.
- Coordinates: -22,097, 15,904.
- A few meters south west (-22,099, 15,904) of this hill is another hill with a permanent water source and according to the local sources, that's were the first setters use to fetch their water from.

Site 2

Rock Dassie Cave – (Figure 6) This cave is found a few meters away from the shelter (site 1), with site 2 located on top of a hill, probably for security or status, habitation shelter protecting habitats from elements of weather, heat, rainfall etc. Further there is abundant evidence of -Evidence of a fire smoke due to blackened roof of the cave.

- Grinding stone (Figure 8), according to the local community member was used for bone marrow extraction by the inhabitants.
- No evidence of rock arts, this is suggestive of the fact that, the cave might have been used by Herero pastoral groups or other groups of people who migrated in central Namibia who had no knowledge of rock art. Rock art was primarily practiced by the San people in southern Africa.
- Coordinates: -21,944, 15,853
- There's a tunnel projecting deep into the cave.

**Unit B - EPL6139**

Site 3

Grave yard - it's an undated grave yard (Figure 9)

- There are about 15 to 20 graves with Christian crosses on each grave. Indicating it is a recent colonial grave, with the
- Modern structured
- Well fenced
- Well taken care of
- Coordinates: -22.103 15.880

According to the local farmers the grave yard is over 30 years old, the grave yard are graves of buried workers who worked on the farm and their children. According to Mr Gert the grave yard was established by the first owner of the farm who buried his employees' children that died while on the farm.

**Unit C**

There is no sign of any archaeological sites or heritage sites on this unit. Nothing was discovered on Unit C that could negatively be impacted by the exploration on this farm.

**Okongava Farm 72 - Sobiso camp**

Site 4

Grave yard – family grave yard

- 5 graves
- Graves are fenced
- Well taken care of
- They have tombstones
- -21,944, 15,853

The first grave belongs to an individual by the name (Marrie Rosemann) who passed on in 1913 and likely to be the first farm owner`s wife. (Figure 10)

Her husband is also buried close. The rest of the graves belongs to the descendants of the Rosemann family.

There is a historical building (1903) northwest direction from the grave yard –Coordinates -22,007, 15,924 on this farm that is currently being occupied by current communal farm owners.

Unquantifiable artefacts were mapped with a handheld GPS unit. Most of the tools are assigned to the Late Farming communities although Later Stone Age shelter was found. Most artefacts around the site are pot sherds. The pieces of pottery sherds are shinny. A grinding stone was also recorded within the study area further pointing to the evidence of the presence of pastoral farming communities in the archaeological record. The sparse distribution of the pot sherds around the site shows that erosion processes and modern land use have quite disturbed the provenance of artefacts. The site is covered in sparse grass cover with scattered clumps of thorn trees. It is by no doubt that the hill shelter settlement has archaeological objects (pottery) that probably dates to pre-colonial era. Further proof of human habitation around the shelter is in the form of: evidence of smoke in the roof of the shelter and ash dumped near by the shelter. habitation, pieces of pottery sherds scattered around this bolder and it is reported that the local or current settlers has removed some bigger pieces of pots for their personal use, although we couldn't locate any individual that could give us more information about the pieces that were looted. A few meters south west (-22,099, 15,904) of this hill is another hill with a permanent water source and according to the local sources, that's were the first inhabitants use to fetch their water from.

A grave yard was recorded at a farm in Unit B. The grave yard is 30 years old according to an informant and that is where farm workers and their families were buried.

There is no sign of any archaeological sites or heritage sites on Unit C. While much of the area seems unlikely to have significant tangible heritage value, this would need to be verified on the ground when work commences. The identified formal cemetery on southern part of the Unit C farm is one of the current peri-urban infrastructural features identified, which ought to be protected. Therefore, the gravesite and the surrounding should not be disturbed given the fact that the families who established the grave have thus far sold the farm to the government for communal resettlement. There is only one historical building in Unit C. The historical building (1903) is located north-west from the grave yard. The farm is currently being occupied by current resettled communal farmers. There are no other structures, or features, old equipment, public memorial or monuments in the area.

### 5.1 Archaeological and Heritage Site

The proposed EPL 6139 sites did yield confirmable archaeological material. The site is situated on area that is heavily degraded probably from previous and current land use and from infrastructure developments. There's one homestead within the study area although few other homesteads are found. It is assumed that the chances of recovering more significant archaeological materials were seriously compromised and limited due to grass cover and dense thicket on the area.

Table 1 Sites and their description

| Site Name | Description |
|---|---|
| Site 1 | Coordinates: -22,097, 15,904.<br>Hill Shelter settlement |
| Site 2 | Coordinates: -21,944, 15,853<br>Grinding Stone |
| Site 3 | Coordinates: -22.103 15.880<br>Grave Yard |
| Site 4 | Coordinates -21,944, 15,853<br>Family grave yard |

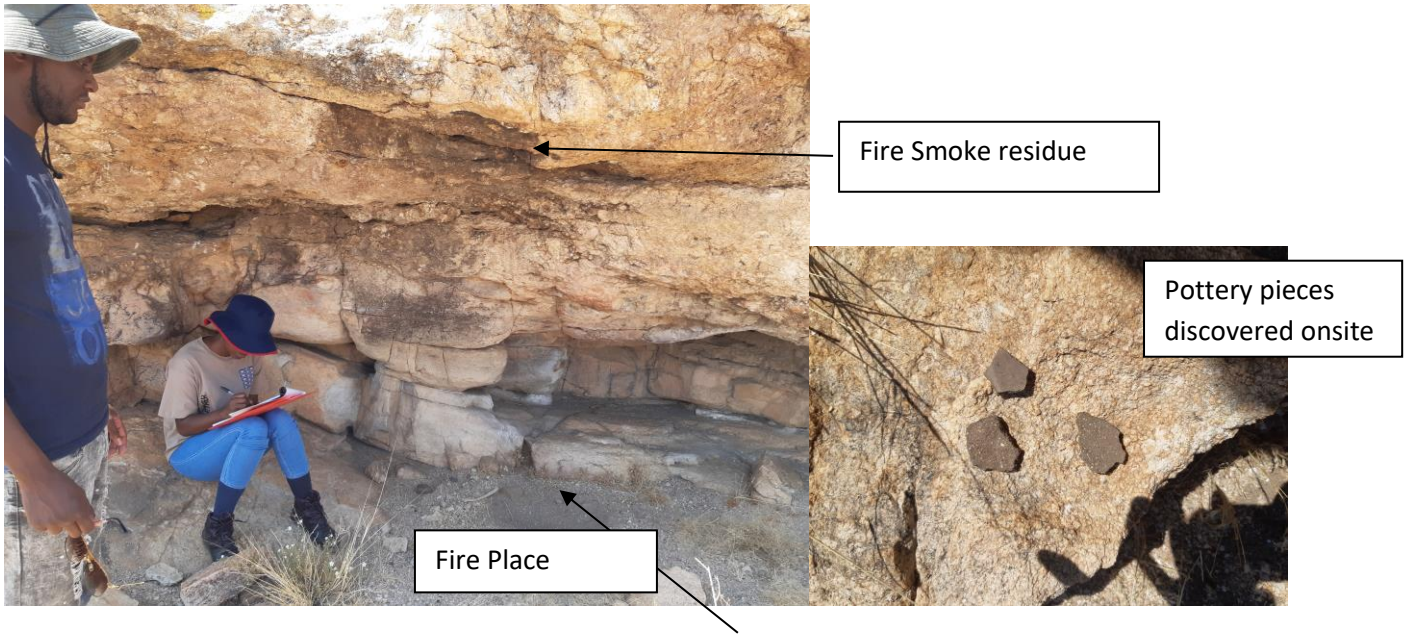



Figure 5. Site one, Habitation Shelter where precolonial pottery was discovered (Photograph © by Author 2020)

Figure 6. Site two. Grinding stone and the Rock Dassie Cave (Photograph © by Author 2020)

Figure 7. Site three, Grave site at Unit B (Photograph © by Author 2020)


Figure 8. Site four, Family Grave yard at Unit C farm Okongava (Photograph © by Author 2020)

Figure 9. Historic building (Est 1903) in Unit Farm Okongava (Photograph © by Author 2020)

**Mitigation**

The work done at EPL 6139 fairly captured good information on the archaeological heritage present and that the study has identified no significant impacts to pre-colonial archaeological materials. Professional archaeologist must be on site to monitor during clearing on the affected areas. The results of the study indicate that the proposed development of the EPL will not have an impact of great significance on these and potentially other archaeological remains.

### 5.2 Buildings and Structures older than 60 years

The proposed EPL project site did yield one building or structure older than 60 years and there's only one homestead found in the area under study namely: Okongava farm house (Est 1903).

### 5.3 Burial grounds and graves

The field survey identified village cemetery with quite a number of graves of which some of them are over 30years old. The majority of the graves have inscribed headstones with the oldest grave dating to 1913.

**Significance valuation for Burial Ground, Historic Cemeteries and Individual Graves**

Although the possibility of encountering previously unidentified burial sites is low within the proposed EPL 6139 exploration sites, should such sites be identified during subsurface exploration work, they are still protected by applicable legislations and they should be protected (also see Appendixes for more details). The significance of burial grounds and gravesites is closely tied to their age and historical, cultural and social context. Nonetheless,

every burial should be considered as of high socio-cultural significance protected by practices, a series of legislations, and municipal ordinances.

### 5.4 Historical Monuments and Memorials

There are archaeological materials found within the proposed EPL although they are sparsely distributed. However, it should be noted that whole landscape in general had cultural artefacts that are scattered all over. The distribution of material cultural probably is a result of previous disturbance.

## 5.5 Cumulative Impacts

Although the project area is degraded by grazing livestock, the proposed activities will add to the cumulative impacts of the existing especially ground penetrating impacts of the EPL activities.

# 6 DISCUSSION

Various specialists conducted several Phase 1 Archaeological/ Heritage studies for various infrastructure developments and mining developments since 2004 in Namibia. The lack of confirmable archaeological sites recorded during the current survey is thought to be a result of one primary factor:

**Chance finds procedures**

It has already been highlighted that sub-surface materials may still be lying hidden from surface surveys. Therefore, absence (during surface survey) is not evidence of absence all together. The following monitoring and reporting procedures must be followed in the event of a chance find, in order to ensure compliance with heritage laws and policies for best-practice.

# 7 CULTURAL HERITAGE SITE ASSESSMENTOF SIGNIFICANCE

The appropriate management of cultural heritage resources is usually determined on the basis of their assessed significance as well as the likely impacts of any proposed developments. Cultural significance is defined in the Burra Charter as meaning aesthetic, historic, scientific or social value for past, present or future generations (Article 1.2). Social, religious, cultural and public significance are currently identified as baseline elements of this assessment, and it is through the combination of these elements that the overall cultural heritage values of the site of interest, associated place or area are resolved.

Not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a place is not fixed for all time, and what is considered of significance at the time of assessment may change as similar items are located, more research is undertaken and community values change. This does not lessen the value of the heritage approach, but enriches both the process and the long-term outcomes for future generations as the nature of what is conserved and why, also changes over time (Pearson and Sullivan 1995:7). This assessment of the Indigenous cultural heritage significance of the Site of Interest as its environments of the study area is based on the views expressed by the traditional authority and community representatives, consulted documentary review and physical integrity.

African indigenous cultural heritage significance is not limited to items, places or landscapes associated with pre-European contact. Indigenous cultural heritage significance is understood to encompass more than ancient archaeological sites and deposits, broad landscapes and environments. It also refers to sacred places and story sites, as well as historic sites, including mission sites, memorials, and contact sites. This can also refer to modern sites with particular resonance to the indigenous community. The site of interest considered in this project falls within this realm of broad significance.

# 8 ASSESSMENT CRITERIA

The Guidelines to the NHA Guidelines and the Burra Charter define the following criterion for the assessment of cultural significance:

**Aesthetic Value**

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; sense of place, the smells and sounds associated with the place and its use.

**Historic Value**

Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

**Scientific value**

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information. Scientific value is also enshrined in natural resources that have significant social value. For example, pockets of forests and bushvelds have high ethnobotany value.

**Social Value**

Social value embraces the qualities for which a place has become a focus of spiritual, religious, political, local, national or other cultural sentiment to a majority or minority group. Social value also extends to natural resources such as bushes, trees and herbs that are collected and harvested from nature for herbal and medicinal purposes.

# 9 RECOMMENDATIONS

The study did not find any permanent barrier to the exploration activities. The following recommendations are based on the results of the A/HIA research, cultural heritage background review, site inspection and assessment of significance.

**Recommendation 1**

It is recommended that historic infrastructures such as historic buildings in Figure 3 and windmill in Figure 4 be protected and no exploration may occur within 50 meters of the site in order to avoid disturbing them. Similarly, no exploration is recommended within 50 meters of the grave yards in Unit B (NIMA communal area) and Unit C (Okongava).

**Recommendation 2**

It is recommended that no exploration may occur within 50 meters of Dassie cave which is a prehistoric shelter where pottery was found. It is like that the area has more evidence of earlier human habitation than what was uncovered during this HIA.

**Recommendation 3**

It is recommended that should any more pottery or object of archaeological nature be discovered elsewhere within the vicinity of Rock Dassie cave, the proponent may initiate chance find procedures as outlined by NHC chance find procedure guidebook. This should be done to avoid intentional disturbance to archaeological objects that are buried that were not apparent during this assessment in this report. It is the jurisdiction of the proponent that the National Heritage Act and its statutes are adhered to. The objective is to protect Namibia`s heritage for this generation and the next.

**Recommendation 4**

It is further recommended that a comprehensive academic study be conducted after the exploration on the shelter and Rock Dassie cave (Figure 5 and Figure 6). This will ascertain the extent of artefactual distribution and content in the area. Test pits and other less intrusive archaeological methods can be employed. This is indeed an interesting discovery. The objective is to ascertain the communities that inhabited this cave that likely goes back to pre-colonial era before the farm was purchased by the Germans from the indigenous Herero communities. The absence of rock art paintings disputes the presence of San communities, though not conclusive. The presence of pottery is indicative of Bantu community presence that possessed such skills. These curious and inquisitive questions can be satisfactorily answered when a detailed study is conducted on the area by archaeologists in collaboration with Namibia’s heritage custodians (National Heritage Council of Namibia and National Museum of Namibia).

This recommendation can be executed anytime when resources allow, before, during or after exploration activities.

## 10 CONCLUDING REMARKS

The literature review and field study confirmed that the project area is situated within a contemporary cultural landscape dotted with settlements with long local history. Field survey established that the affected project area is degraded by vegetation clearance, overgrazing, and stamping by domestic animals. Although the area is degraded, there is a possibility that the HIA Study Area Site of Interest is part of a wider archaeological and historical site within and significant cultural landscape. This report concludes that the proposed exploration development may be approved by NHCN to proceed as planned subject to recommendations herein made and heritage monitoring plan being incorporated into the construction EMP (also see Appendices). The measures are informed by the results of the HIA study and principles of heritage management enshrined in the NHA, Act 27 of 2004.

## 11 BIBLIOGRAPHY


Barham, L. and Mitchell, P.2008. *The first Africans: African archaeology from the earliest toolmakers to most recent foragers*. Cambridge: Cambridge university Press.

Beaumont, P.B. and Morris, D. 1990. *Guide to archaeological sites in the Northern Cape*. Kimberley: McGregor Museum.

Beaumont, P. B. and Vogel, J. C. 2006.On a timescale for the past million years of human history in central South Africa.*South African Journal of Science 102: 217-228.*

Bergh, J.S. (ed.) 1999. Geskiedenisatlas van Suid-Afrika. Die viernoordelikeprovinsies. Pretoria: J.L. van Schaik.

Deacon, H.J. and Deacon, J.1999.*Human beginnings in South Africa: Uncovering the secrets of the Stone Age.* Cape Town: David Philip

De Jong, R.C. 2010.*Heritage Impact Assessment report: Proposed Manganese and Iron Ore Mining Right Application in respect of the Remainder of the farm Paling 434, Hay Registration Division, Northern Cape Province*.Unpublished Report Cultmatrix Heritage Consultants Project 2010/23 May 2010 for Kai Batla.

Fourie, W. 2013a.*Proposed Lehating Mining (Pty) Ltd underground manganese mine on Portions 1 of the Farm Lehating 714 and Portion 2 of the farm Wessels 227, approximately 20km northwest of Hotazel, Northern Cape Province*. Unpublished report prepared for SLR Consulting (Africa) (Pty) Ltd

Fourie, W. 2013b.*Heritage Impact Assessment for the proposed prospecting activities for Tshipi é Ntle Manganese Mining on Remaining extent of the farm Wessels 227 and Portions 1 and 2 and the remaining extent of the farm Dibiaghomo 226 in the Northern Cape Province*. Pretoria: Unpublished report.

Hall, S. 1985. Excavations at Rooikrans and Rhenosterkloof, Late Iron Age sites in the Rooiberg area of the Transvaal.*Annals of the Cape provincial museums* (human sciences) 1 (5): 131-210

Huffman, T.N. 2007 Handbook to the Iron Age: *The archaeology of pre-colonial farming societies in southern Africa. Scottville*: University of KwaZulu Natal Press.

Hutten, L. & Hutten, W. 2013.*Heritage Impact Assessment report for the farms Wessels 227 Portion 2 and Boerdraai 228*. Cape Town: Unpublished report.

Kaplan, J. 2009. *Archaeological Impact Assessment, the proposed WhitebankKeren Energy Solar Plant on Farm 77 near Kuruman, Northern Cape. Report prepared for EnviroAfrica. Agency for Cultural Resource Management*.

Kruger N. 2016. *Archaeological Impact Assessment (AIA) of areas demarcated for proposed photovoltaic power plants (EAST 2 and East 3 Solar Parks and access roads) on the remainder and portion 2 of the farm East 270, GaSegonyaneLocal Municipality, Northern Cape Province*.

Kusel, U., M.van der Ryst and S.Kusel. 2009. *Cultural Heritage Impact Assessment of Manganese Mining Areas on the farms Belgravia 264, Santoy 230, Gloria 226 and Nchwaning 267, at Black Rock, North of Kuruman, Kgalagadi District Municipality Northern Cape Province.* Unpublished Report African Heritage Consultants September 2009. For Assmang Limited.

Magoma, M. 2013. Phase 1 *Archaeological Impact Assessment Specialist Study Report For The Proposed Prospecting For Mining of Minerals On Portions 1, 2 Remainder Extent of The Farm 219 And Lower Kuruman 219 In Kuruman Area Within Ga-Segonyana Local Municipality, John Gaetsewe District, Northern Cape Province*. Unpublished report.

National Environmental Management Act 107 of 1998

National Heritage Resources Act NHRA of 1999 (Act 25 of 1999)

Nkhasi, M. E. Sotho/Tswana Stone-Wall Settlements*: Investigating the Nature of Aggregation and Variability in Late Iron Age Settlements in the Vredefort Dome -A Geographic Information Systems Application*. Master of Science degree, University of Cape Town

Parkington, J, Morris, D, &Rusch, N. 2008.*Karoo Rock Engravings: Follow the San*. Cape Town: Creda Communications.

Pelser, A. & van Vollenhoven, A.C. 2011.*A report on a heritage impact assessment (HIA) for a proposed new rail crossing over the Gamagara River for the Gloria Mine operations, Assmang Black Rock, on Gloria 266, North of Hotazel, Northern Cape*. Pretoria: Unpublished report.

Pelser, A.J. 2012.*A report on an Archaeological Impact Assessment (AIA) for a proposed housing development on ERF 675, Kuruman, in the Northern Cape.* Unpublished report prepared for Thabo Phokojoe.

Ross, R. 2002. *A concise history of South Africa. Cambridge*: Cambridge University Press.

Smit, A.P. 1966. Wateroog in die *Dorsland: Ned. Geref. KerkKuruman 1916-1966. Kuruman: Kerkraadvan dieGemeenteKuruman.*

Snyman, P.H.R. 1992. *Kuruman 1800-1990*, PhD Thesis, University of South Africa.

Thackeray, A.I., Thackeray, J.F. and Beaumont, P.B. 1983. Excavations at the Blinkklipkopspecularite mine near Postmasburg, northern Cape. *South African Archaeological Bulletin 38:17-25.*

Tlou, T. and Campbell,A 1997. *History of Botswana. Gaborone*: Macmillan.

Van de Merwe, P.J., 1949. *Pioniers van die Dorsland, Kaapstad: Nasionale Pers*.

Van der Walt, J. 2013. *Archaeological Impact Assessment For The Proposed Prospecting Right of a Quarry On The Farm Gamohaan 438 Portion 1 In The Kuruman Magisterial Distri*ct. Unpublished report.

Van Schalkwyk, J.A. 2010. *Archaeological impact survey report for the proposed township development in Hotazel, Northern Cape Province*.Unpublished report 2010JvS028.

Van Schalkwyk, J.A. 2015a. *Cultural heritage impact assessment report for the development of the proposed Lehating 132kV power line and substation, northwest of Hotazel, Northern Cape Province*.Unpublished report 2015JvS045.

Van Schalkwyk, J.A. 2015b. *Cultural heritage impact assessment for the proposed development of the Tshipi-Borwa 132kV power line and substation, south of Hotazel, Kgalagadi district municipality, Northern Cape Province*.Unpublished report 2015JvS073.

Van Schalkwyk, J.A. 2016.*Cultural heritage impact assessment for the development of the proposed Kagiso Solar power plant on the remaining extent of the farm Kameelaar no.315 Registration Division Kuruman, Northern Cape Province.*

Van Vollenhoven, A.C. 2012.*A report on a heritage impact assessment for the proposed Main Street 778 (Pty) Ltd mining right application close to Hotazel, Northern Cape Province*. Pretoria: Unpublished report.

Webley, L &Halkett, D. 2008. *Phase 1 Heritage Impact Assessment: proposed prospecting on the Farm Adams 328 and Erin 316 Kuruman. Ga-segonyana Municipality.in the Northern Cape. Report prepared for Zama Mining Resources (Pty) Ltd. Archaeology Contracts Office, Department of Archaeology, University of Cape Town*.

Wilkins, J, and Chazan, M. 2012. *Blade production - 500 thousand years ago at Kathu Pan 1, South Africa: support for a multiple origins hypothesis for early Middle Pleistocene blade technologies. Journal of Archaeological Science 39: 1883-1900.*

## 12 APPENDIX 1: Heritage Management Plan Input into the EPL Exploration project EMP

| Objective | • Protection of archaeological sites and land considered to be of cultural value;<br>• Protection of known physical cultural property sites against vandalism, destruction and theft; and<br>• The preservation and appropriate management of new archaeological finds should these be discovered during exploration. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | Activity | Mitigation Measures | Duration | Frequency | Responsibility | Accountable | Contacted | Informed |
| Pre-exploration Phase | | | | | | | | |
| 1 | Planning | Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan, and marked as no-go areas. | Throughout Project | Weekly Inspection | Contractor [C]<br>Agulhas Mineral Resources cc | SM | ECO | EA<br>EM<br>PM |
| Exploration Phase | | | | | | | | |
| 1 | Emergency Response | Should any archaeological or physical cultural property heritage resources be exposed during excavation for the purpose of exploration, exploration in the vicinity of the finding must be stopped until heritage authority has cleared the project to continue. | N/A | Throughout | C<br>Agulhas Mineral Resources cc | SM | ECO | EA<br>EM<br>PM |
| | | Should any archaeological, cultural property heritage resources be exposed during excavation or be found on development site, a registered heritage specialist or NHC official must be called to site for inspection. | | Throughout | C<br>Agulhas Mineral Resources cc | SM | ECO | EA<br>EM<br>PM |
| | | Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed form site; | | Throughout | C<br>Agulhas Mineral Resources cc | SM | ECO | EA<br>EM<br>PM |
| | | Should human remain and/or artefacts be discovered on the exploration site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager who in turn will inform NHC | | When necessary | C<br>Agulhas Mineral Resources cc | SM | ECO | EA<br>EM<br>PM |
| | | Should any remains be found on site that is potentially human remains, the NHC and Namibia Police Service should be contacted. | | When necessary | C<br>Agulhas Mineral Resources cc | SM | ECO | EA<br>EM<br>PM |
| Rehabilitation Phase | | | | | | | | |
| | | Same as exploration phase. | | | | | | |
| Operational Phase | | | | | | | | |
| | | Same as exploration phase. | | | | | | |

**Appendix 2: Heritage mitigation measures table**

| SITE REF | HERITAGE ASPECT | POTENTIAL IMPACT | MITIGATION MEASURES | RESPONSIBLE PARTY | PENALTY | METHOD STATEMENT REQUIRED |
|---|---|---|---|---|---|---|
| Chance 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 which may disturb previously unidentified chance finds. | Possible damage to previously unidentified archaeological and burial sites during exploration phase.<br>• Unanticipated impacts on archaeological sites where project actions inadvertently uncovered significant archaeological sites.<br>• Loss of historic cultural landscape;<br>• Destruction of burial sites and associated graves<br>• Loss of aesthetic value due to exploration work<br>• Loss of sense of place<br>Loss of intangible heritage value due to change in land use | In situations where unpredicted impacts occur exploration activities must be stopped and the heritage authority should be notified immediately.<br>Where remedial action is warranted, minimize disruption in exploration scheduling while recovering archaeological data. Where necessary, implement emergency measures to mitigate.<br>• 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.<br>• Accidentally discovered burials in development context should be salvaged and rescued to safe sites as may be directed by relevant 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. | • Contractor /<br>• Project Manager<br>• Archaeologist<br>• Project EO | Fine and or imprisonment under the NHA | Monitoring measures should be issued as instruction within the project EMP.<br><br>PM/EO/Archaeologists Monitor exploration activities on sites where such exploration projects commence within the farm. |

## Appendix 3: Legal background in Namibia

Extracts relevant to this report from the National Heritage Resources Act No. 27 of 2004,

Extracts relevant to this report from the Environmental Management Act of 2007,

General principles for heritage resources management