

Date: 23 November 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-001763) for the Proposed Exploration and Mining for Dimension Stone on Mining Claims 71609 – 71617 near Arandis in the Erongo Region, Namibia

OMAVI Geotechnical & Geo-Environmental Consultants cc (the Environmental Consultant) has been appointed by Okonde Mining and Exploration cc (the Proponent) to apply for **the Environmental Clearance Certificate (ECC)** and conduct an Environmental Scoping Assessment for **Proposed Exploration and Mining for Dimension Stone on Mining Claims 71609 – 71617 near Arandis 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 Dr. John Kinahan (an experienced and qualified Archaeologist) to carry out the required Archaeological Impact Assessment (AIA) for the proposed mining claims' site. An AIA for the site area was undertaken in October 2020 and a Report compiled by the Archaeologist. The AIA Report also covered the site area for Exclusive Prospecting License (EPL) 5161 within the vicinity of the mining claims under one combined trip. A different Environmental Assessment for EPL 5161 was undertaken but ran concurrently with the mining claims' one, therefore the Scoping Report for the EPL will be submitted separately.

The AIA Report was submitted to the NHC on the 7th of October 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 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,

Ms. Fredrika Shagama and or Ms. Linda Uulenga (Environmental Assessment Practitioners)


OMAVI Geotechnical & Geo-Environmental Consultants cc

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Proof of Email communication to the National Heritage Council of Namibia (Submission of the Archaeological Impact Assessment for consideration of the Consent Letter) – Receipt of Email was acknowledged telephonically and review of the Report is still in progress.

Contact Persons: Mr. Manfred Gaeb or Ms. Agnes Shiningayamwe (Regional Heritage Officers), Tel: 061 301 903

 **Erica Ndalikokule** <erica@nhc-nam.org>
to info, enviro, me ▾ 📧 Mon, 7 Sept, 17:57 ☆ ↶ ⋮


Dear Ms Shagama,


Please find attached, NHC's response to your request.

Kind regards,

Erica

⋮


NHC Response.pdf

 **Fredrika Shagama** <fshagama@gmail.com>
to rho1, rho2, luciapermitsnhc, Erica, info, enviro, bcc: Giesberta, bcc: me ▾ 📧 Wed, 7 Oct, 10:31 ☆ ↶ ⋮

Good morning Mrs. Ndalikokule,

Following the communication we started with your office on 28 August 2020 below (when we shared the Environmental Assessment Report for your review and comments) and response letter we received from your office dated 7 September 2020 for the proposed exploration and mining activities on Mining Claims 71609 to 71617 and communication from 24 September 2020 for the proposed exploration activities on Exclusive Prospecting License (EPL) 5161 (both sites in the same area near Arandis), we would like to inform you that the Archaeological Impact Assessment has been undertaken and completed (by Dr. John Kinahan) and the findings of this study/assessment are contained in the attached file (Report).

Could you kindly provide us with an estimated timeline to complete the Report Review and subsequent issuance of the Consent Letters for the two sites, upon evaluation of the Archaeological Report?

Thank you.

Kind regards,
Fredrika

⋮



Fredrika Shagama <fshagama@gmail.com>

to Erica, info, enviro, rho1, rho2, luciapermitsnhc, bcc: Giesberta, bcc: me ▾

7 Oct 2020, 13:19 ☆ ↶ ⋮

Good day Mrs Ndalikokule,

We are resending the Report that we sent earlier in the morning due to some amendments that had to be done by the Archaeologist (there was a map missing - added as Figure 7 on page 17 of the amended Archaeological Report (attached file)).

We apologize for any inconvenience that the earlier version may have caused between then and now.

Thank you,
Fredrika



7 October 2020

OMAVI Geotechnical & Geo-environmental Consultants
Windhoek
Namibia

For attention: Ms F. Shagama, Environmental Assessment Practitioner

ARCHAEOLOGICAL ASSESSMENT OF PROPOSED MINING LICENCE CLAIMS 71609-71617 LOCATED ON FARMS SUKSES AND HAKSKEEN, AND AN AREA OF INTEREST LOCATED ON FARM TREKOPJE WITHIN EPL 5161, ERONGO REGION, NAMIBIA

John Kinahan, Archaeologist
P.O. Box 22407
Windhoek
Namibia

DECLARATION

I hereby declare that I do:

- (a) have knowledge of and experience in conducting assessments, including knowledge of Namibian legislation, specifically the National Heritage Act (27 of 2004), as well as regulations and guidelines that have relevance to the proposed activity;
- (b) perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- (c) comply with the aforementioned Act, relevant regulations, guidelines and other applicable laws.

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

- (i) the financial or other affairs of either the applicant or his consultant
- (ii) the decision-making structures of the National Heritage Council of Namibia.



John Kinahan, Archaeologist

EXECUTIVE SUMMARY

An archaeological field survey was carried out on Mining Claims 71609-71617 on farms Sukses and Hakskeen in the Erongo Region. The field survey located a number of late pre-colonial archaeological sites although none found within the proposed area of exploration and mining were considered to be significant or to require special mitigation measures. It is recommended that the project adopt the attached Chance Finds Procedure devised for mining projects.

Furthermore, a desk study was carried out on a portion of EPL5161 on the farm Trekopje, also in the Erongo Region. Previous archaeological surveys which did not cover the whole of the area of the proposed exploration and mining activities identified a number of sites, including two cemeteries in the near vicinity of Trekopje Siding. It is recommended that the battlefield be designated a No-Go area for the proposed exploration and mining activities and that it should be excised from the prospecting licence area until a detailed survey has been conducted.

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1. INTRODUCTION

1.1 Background

Okonde Mining and Exploration cc intends to undertake exploration and subsequent mining activities on nine mining claims located on the farms Sukses and Hakskeen, and Best Cheers Investment Namibia (Pty) Ltd intends similar activities on a portion of EPL 5161 located on the farm Trekopje. All of the exploration and mining properties are located near Arandis, in the western Erongo Region of Namibia. Mining is listed in the Environmental Management Act (2007) as an activity requiring environmental assessment and the issuance of an Environmental Clearance Certificate.

Omavi Consultants has been engaged to carry out an environmental assessment (EA) of the proposed project in terms of the Environmental Management Act (2007). Archaeological remains in Namibia are protected under the National Heritage Act (2004) and National Heritage Regulations (Government Notice 106 of 2005), and projects of this magnitude are also subject to archaeological assessment. Omavi has accordingly appointed the undersigned, J. Kinahan, archaeologist, to carry out this assessment.

1.2 Terms of Reference

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

Specifically, the archaeological assessment addresses the following primary elements:

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

1.3 Assumptions & Limitations

Archaeological assessment relies on the indicative value of surface finds recorded in the course of field survey. Field survey results are augmented wherever possible by inference from the results of surveys and excavations carried out in the course of previous work in the same general area as the proposed project, as well as other

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

2. LEGAL REQUIREMENTS

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

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

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

3. PROJECT DESCRIPTION

The proposed exploration and mining activities to be carried out on the farms Sukses, Hakskeen and Trekopje are described in the *Environmental Scoping Assessment (ESA) Report for the Proposed Exploration and Mining of Dimension Stone on Mining Claims 71609-71617 in the Erongo Region* (MEFT Application 001763 of 28 August 2020) prepared for Okonde Mining and Exploration cc, by Omavi Geotechnical and Geo-environmental

Consultants, Windhoek. The proposed activities will include the use and/or construction of access tracks,

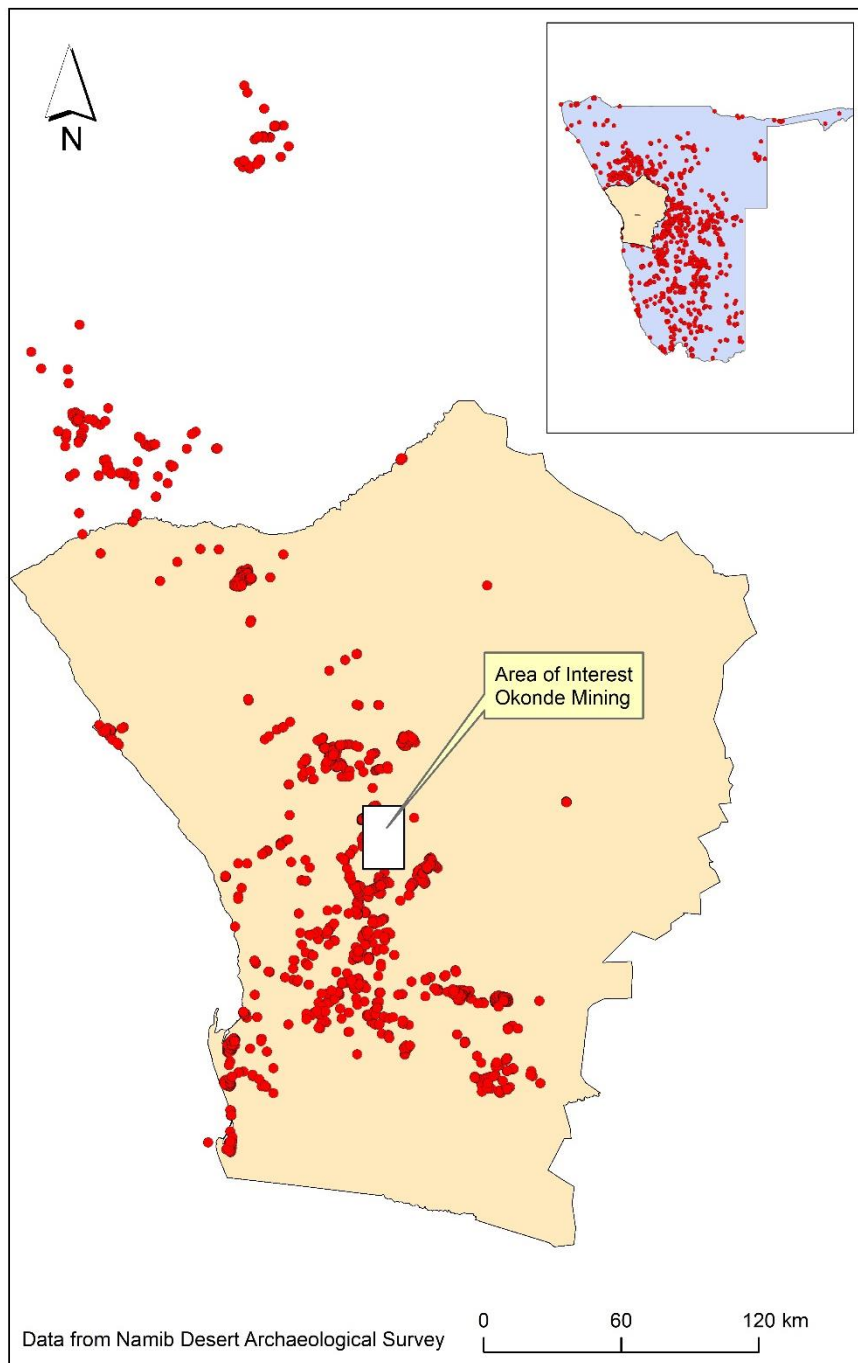


Figure 1: The Okonde Mining and Exploration cc Area of Interest, showing the known distribution of archaeological sites in the Erongo Region.

establishment of field camps, earthmoving to expose bedrock, bulk sampling of selected outcrop material, as well as mining and removal of material for processing and possible export. The ESA document does not consider the possible impact of the project on protected archaeological/heritage resources and the consultants were therefore directed by the National Heritage Council to obtain appropriate assistance with this requirement.

In response to a separate Environmental Management Plan (EMP) compiled by Omavi for possible dimension stone exploration and mining in the Trekopje area (EPL 5161), the National Heritage Council (letter dated 24 September 2020) directed the consultants to conduct a heritage impact assessment of the area in which these activities are to take place. The letter directed the consultants to “carry out a heritage assessment to identify and further present an assessment of cumulative impacts..., map out sensitive areas, and provide practical mitigation to avoid or reduce negative impacts, and set out associated long-term monitoring requirements for managing and conserving heritage resources in the project area.”

In consultation with Omavi, the undersigned agreed to conduct a direct field survey of Mining Claims 71609-71617 on farms Sukses and Hakskeen and this was carried out on 26 and 27 September 2020. Omavi requested the undersigned to carry out a desk assessment of a proposed target area on EPL5161 using the results of previous field surveys which had traversed the lease area. The surveys did not however cover the whole of the proposed target area. This report is therefore based on current observations for the state of archaeological/heritage resources on the farms Sukses and Hakskeen and relies on an earlier (incomplete) survey of the Trekopje area.

4. THE RECEIVING ENVIRONMENT

4.1 Background

Due to its aridity, western Namibia including the vicinity of Arandis and the proposed Okonde project location, presents a marginal environment for human occupation, and in the past, particularly during periods of climatic cooling and hyper-aridity, the region may have been quite inimical to settlement. These conditions are reflected in the available archaeological evidence, which spans the last 0.8 million years with a sequence that is characterized by short periods of relatively intensive occupation, and long periods in which there appears to have been little or no human presence (see Kinahan 2011).

The region surrounding Arandis has been the focus of several archaeological surveys and assessments during the last two decades. These surveys have helped to determine the local archaeological sequence and to establish the relationship between archaeological sites and the particular types of terrain that characterize the area, including gravel outwash fans, granite outcrops and the many dolerite ridges that criss-cross the landscape. However, archaeological surveys for mining and infrastructure projects are highly focussed on the area of a particular project footprint and do not therefore as a rule reflect the wider archaeology of the area.

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

- a. **Early to mid-Pleistocene (ca. 2my to 0.128my; OIS 6, 7, 19 &c):** represented by surface scatters of stone tools and artefact debris, usually transported from original context by fluvial action, and seldom occurring in sealed stratigraphic context.
- b. **Mid- to upper Pleistocene (ca. 0.128my to 0.040my; OIS 3, 4 & 5a-e):** represented by dense surface scatters and rare occupation evidence in sealed stratigraphic context, with occasional associated evidence of food remains.
- c. **Late Pleistocene to late Holocene (ca. 0.040my to recent; OIS 1 & 2):** represented by increasingly dense and highly diverse evidence of settlement, subsistence practices and ritual art, as well as grave sites and other remains.
- d. **Historical (the last ca. 250 years):** represented by remains of crude buildings, livestock enclosures, wagon routes and watering points. Of particular importance in the project area is evidence relating to the 1915 World War I conflict between Allied and colonial German forces, including the Battle of Trekopje which took place on 26th April 1915.

In summary, early to mid-Pleistocene sites are associated with pans, outwash gravels, drainage lines and river gravels, although on the Namib coast some mid-Pleistocene sites are associated with relict beach levels (Corvinus 1983; Deacon & Lancaster 1988). These sites are difficult to detect and because they are easily overlooked in the course of mining or construction work they are often damaged or destroyed in the process. An example of mid-Pleistocene stone artefacts is illustrated in Figure 2. Mid- to upper Pleistocene sites occur in similar contexts to the earlier material, but hill foot-slopes and outcrops of rock suitable for artefact production (e.g. chert, fine-grained quartzites) are also focal points. Late Pleistocene to late Holocene sites occur in almost every terrain setting, with the exception of very steep slopes and mountain tops (Deacon 1972; Kinahan 2011). These sites often exhibit locally integrated distribution patterns which allow some reconstruction of land-use and subsistence. Major Holocene sites include stratified occupation deposits, containing an array of organic and inorganic residues.

Significant changes in human settlement patterns and economic activities occurred during the last 5000 years in the Namib Desert and in the immediate semi-desert hinterland. These include several specialized subsistence technologies, and in the last 2000 years the adoption of livestock keeping which lead to the emergence of a predominantly nomadic pastoral economy. One such development that is directly relevant to the Arandis area is the intensified exploitation, especially during the last 1000 years, of wild grass seed as a major source of human nutrition, and the use of organized communal hunts aimed at migratory antelope, especially oryx. These two activities left clearly recognizable traces on the landscape and have been the subject of intensive research to establish a detailed understanding of late pre-colonial desert subsistence. The archaeological signature traces

of both activities are known in sufficient detail that they are clearly visible in the field. The sites are at the same time quite subtle in appearance and their recognition in the field requires considerable experience.

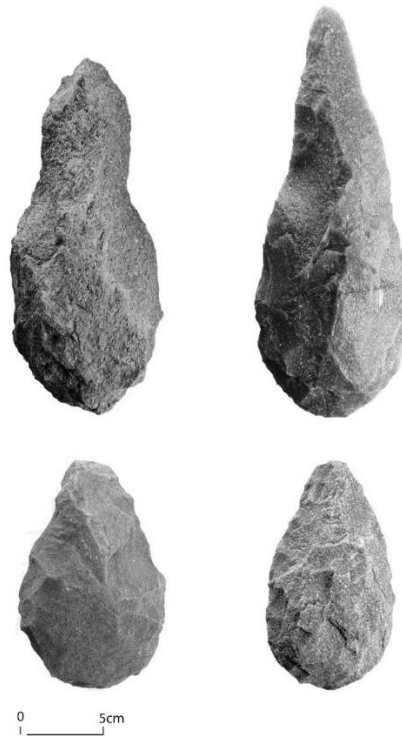


Figure 2: Examples of typical mid-Pleistocene Acheulean handaxes from the Namib Desert in the area to the north of Arandis.

Archaeological evidence related to the exploitation of wild grass seed includes well preserved shallow diggings where caches of grass seed (still known today as *sâun* in Khoekhoegowab) were extracted from the nests of harvester ants (*Messor denticornis*). The seed was cleaned and stored in highly characteristic bag-shaped pottery vessels (see Fig. 3). Processing of the seed for cooking was carried out using grinding surfaces on granite outcrops, usually outcrops with cavities where supplies of rainwater collect after summer showers in the desert. These different components of the seed exploitation assemblage are usually found together in localized concentrations, each covering an area of several square kilometres. Sometimes the sites are also associated with the remains of small groups of hut dwellings or natural rock shelters, occasionally containing painted rock art and other archaeological evidence.

The second component of the recent archaeological record that is relevant to the present study, and comprising evidence of communal hunting of migratory antelope, is closely associated with dolerite dyke outcrops which are a characteristic feature of the landscape in the vicinity of Arandis. Dolerite dykes form natural barriers to the movement of migratory antelope and late precolonial hunters exploited these by siting themselves in breaks

between the outcrops where antelope were funnelled from one area of grazing to another. The hunters constructed stone shelters, arcuate in shape and approximately 2m in diameter, which they positioned as hiding places close to paths used by the antelope. Some communal hunting sites include more than 50 such structures and suggest that orchestrated communal hunts took place involving several hundred people. Most of the hunting sites are relatively small, however, and suggest groups of no more than ten hunters. It is difficult to reliably date these structures since they do not contain organic remains suitable for radiocarbon dating. Experimental dating of some sites using Optically Stimulated Luminescence (OSL) has produced satisfactory results, as shown in Table 1, below. More OSL dates are needed to establish the age range of these unusual features.

Table 1: Dating of hunting blind structures using Optically Stimulated Luminescence¹ (Results from Kinahan 2020).

Site	Dose (Gy)	Dose rate (Gy/ka)	Age (years)
Gorrasis	0.34±0.04	2.40±0.12	140±20
	1.14±0.13	3.00±0.15	380±50
Husab	0.28±0.03	4.01±0.38	260±50
	0.28±0.03	5.38±0.51	230±60
	0.28±0.03	6.05±0.63	240±60

A final component of the local archaeological sequence that is relevant to the present study is the evidence of the 1915 Allied invasion which ended the period of German colonial occupation in Namibia. The invasion formed part of a number of campaigns in different parts of Africa, the Middle East and elsewhere to capture the colonial possessions of Germany. The campaign in Namibia is of both historical and archaeological interest due to the fact that evidence of the conflict is unusually well preserved on the ground, most particularly in the Namib Desert. The area of interest in EPL 5161 includes the whole of the battlefield where Allied and German forces engaged in the Battle of Trekopje in April 1915. Previous archaeological surveys have documented some features

¹ Optically Stimulated Luminescence, or OSL, is useful in desert conditions where organic remains are not available for radiocarbon dating. OSL dating measures the residual energy of electrons trapped within the atomic spacing of a mineral grain such as of quartz sand to calculate the period of time elapsed since the sand grain was last exposed to sunlight.

of the battlefield but it is not sufficiently well surveyed as a heritage site and is considered to be especially sensitive.

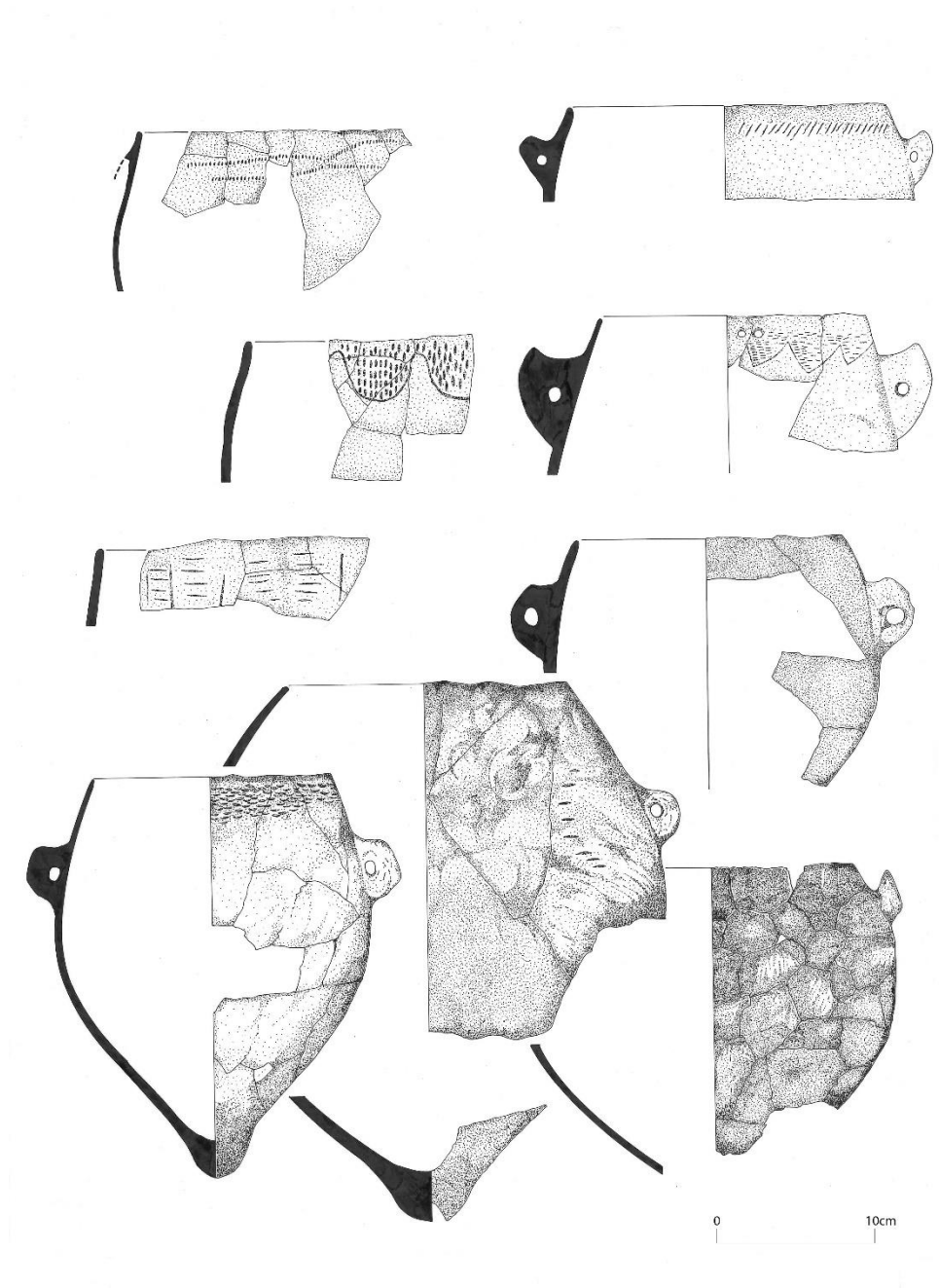


Figure 3: Examples of typical bag-shaped pottery vessels associated with the exploitation of wild grass seed in the Namib Desert during the last 1000 years.

4.2 Observations

A detailed foot survey of the area surrounding Mining Claims 71609-71617 on the farms Sukses and Hakskeen yielded a number of late pre-colonial archaeological sites related to grass seed exploitation and hunting of migratory antelope. These sites included both seed diggings and grinding sites as described in the previous section as well as a number of stone hunting blinds. However, only a small number of seed digging sites fell within the indicated boundaries of Mining Claims 71609-71617 as shown in Figure 4. These sites do not include any cultural material or other artefacts and are therefore not considered to be significant.

A desk assessment of the area of interest on EPL5161 was carried out on the basis of findings from previous surveys in this area² as well as published descriptions of the Battle of Trekopje (L'Ange 1991: 233-41) and a contemporary battlefield sketch made by the German commander at the scene of the battle in April 1915³. The eleven Allied and German servicemen killed at the Battle of Trekopje are buried in a fenced and well maintained cemetery. Outside the cemetery, to the north and east are the remains of entrenchments and earthworks carried out at the time of the battle. These and related remains have not been documented in detail.

On the eastern side of the railway line adjacent to the site of the Trekopje Station is a further cemetery containing ten graves, of which three are those of children. No documentation of this cemetery has been found and none of the graves are marked. It is however possible that they date to the years immediately following World War I in 1918 when the so-called Spanish Flu spread through Namibia, often carried by people travelling by train. Similar cemeteries are found at other railway sidings in remote parts of Namibia where the dead were evidently taken from the trains and buried immediately. This is still to be confirmed in the case of Trekopje.

The map shown in Figure 5 indicates the full extent of EPL5161, although it is understood that the mining and exploration will be confined to the part of EPL5161 that falls within the boundaries of Trekopje farm. The map also shows the distribution of archaeological sites known from previous surveys as well as the extent of the area covered by the Trekopje battlefield site. The contemporary battlefield sketch indicates that the battle took place in the area between the dolerite hills and the railway line and this part of EPL5161 is demarcated in Figure 5 by a polygon in peony pink. This is considered to be the most sensitive part of the area and has yet to be surveyed in detail.

In summary, the area to be affected by Mining Claims 71609-71617 on the farms Sukses and Hakskeen does not contain any significant archaeological sites that fall directly within the mining claims. On the other hand it should be stressed that the client has not provided any information as to the layout of access tracks, waste rock dumps, field camps or any other infrastructure that may affect the archaeology of the area. In the case of EPL5161, the

² Kinahan, J. 2006. Archaeological assessment of water and power supply routes to the Trekopje licence area. Commissioned by Turgis Consulting (Pty) Ltd. on behalf of UraMin (Pty) Ltd. (Namibia).

³ From the collection of the Sam Cohen Library, Swakopmund.

project proponent has declined to commission a survey of the area of interest⁴ and the detailed characteristics of this area remain largely unknown.

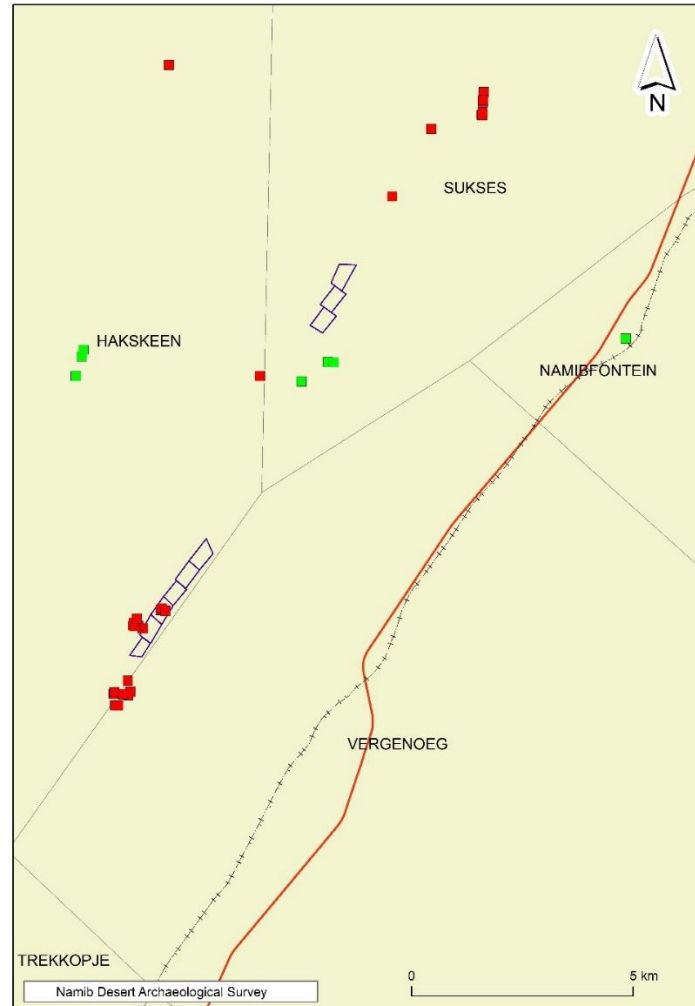


Figure 4: Mining Claims 71609-71617 on farms Sukses and Hakskeen (small polygons) shown in relation to previously known archaeological sites (green squares) and archaeological sites found during the present survey (red squares).

⁴ Despite the instruction of the National Heritage Council (letter dated 24 September 2020) directing the proponent to conduct a heritage impact assessment of the area in which these activities are to take place.

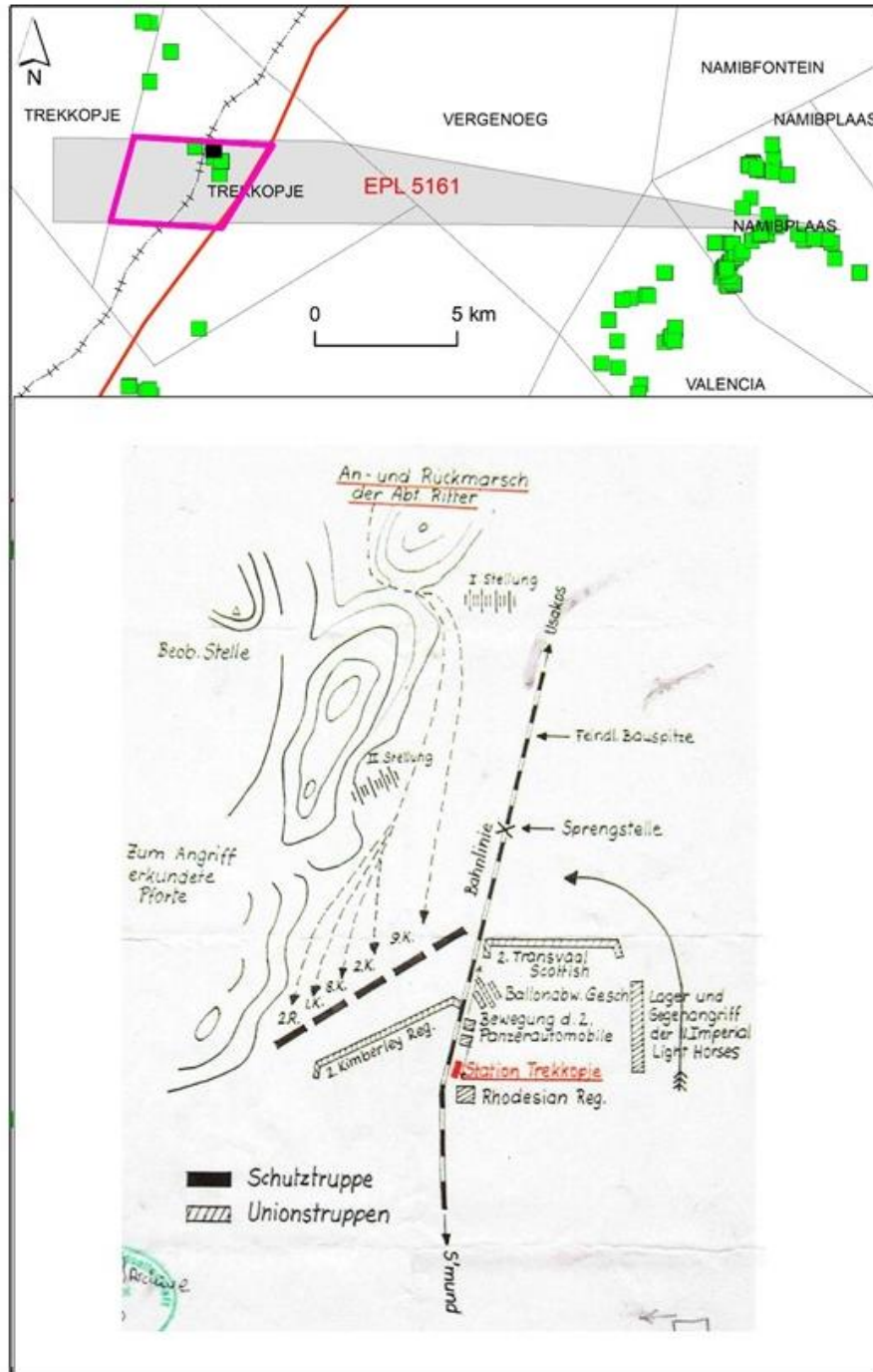


Figure 5: Upper diagram shows EPL 5161 (grey polygon) in relation to known archaeological/heritage sites (green squares), with Trekkopje Battlefield enclosed by peony pink polygon. The contemporary battlefield sketch in the lower part of the diagram shows the extent of entrenchments and other features in relation to Trekkopje Station.

5. CONCLUSIONS & RECOMMENDATIONS

Field survey of Mining Claims 71609-71617 on farms Sukses and Hakskeen confirmed the patterns known from the wider area surrounding Arandis in the west of Erongo Region with regards the archaeology of the later pre-colonial period. The survey located evidence of both wild grass seed exploitation and the hunting of migratory antelope by using the strategic advantages of natural gaps in dolerite ridge. Whereas these more common indications of late pre-colonial subsistence are sometimes associated with other evidence such as human burials and the occupation of rock shelter sites, no such evidence was found during the present survey. Of the sites located during the survey a minority fell within the area of the proposed mining claims and these were of low significance. While it is permissible to conclude from the survey that the proposed exploration and mining activities would have little or no archaeological/heritage impact, it must be stressed that no information is available regarding the use of access tracks, stockpiling of waste rock and of stone to be removed for processing. The full footprint of the proposed activities has not been defined and the assessment of Mining Claims 71609-71617 on farms Sukses and Hakskeen is therefore qualified.

With regards to EPL5161, the desk assessment presented here is based on observations made for an entirely different project where the survey had only a partial overlap with the proposed area of interest on the farm Trekopje. The previous survey recorded the presence of two cemeteries, one related to the Battle of Trekopje in April 1915 and the other tentatively associated with mortalities resulting from the Spanish flu epidemic in 1918. The 1915 servicemen's graves are protected in terms of the 1967 War Graves Act (South Africa) (not repealed by the National Heritage Act of 2004). The civilian graves on the east side of the railway line are protected by Ordinance 27 of 1966. The grave sites are nonetheless vulnerable to disturbance if exploration involving earthmoving and invasive sampling are permitted in their near vicinity. It is also a matter of concern that the actual battlefield at Trekopje has not been surveyed at all and that historically important remains of the conflict might be destroyed in the course of exploration and mining. It is therefore recommended that the battlefield itself be excluded from the exploration and mining licence area either permanently or until it has been satisfactorily surveyed.

The contemporary sketch map in Figure 5 clearly shows that the battlefield at Trekopje encompassed a large area beyond the site of the servicemen's cemetery. This area, extending from the railway to the Trekopje farm fence has not been surveyed in detail. In view of the express instruction of the Heritage Council in this regard, this area is to be excluded from exploration and mining on EPL5161 (as indicated in Figure 6) until such time as a comprehensive survey has been carried out as the basis for a decision by the National Heritage Council. Figure 7 shows the parts of the farm Trekopje falling within EPL5161 which are of interest to the proponent.

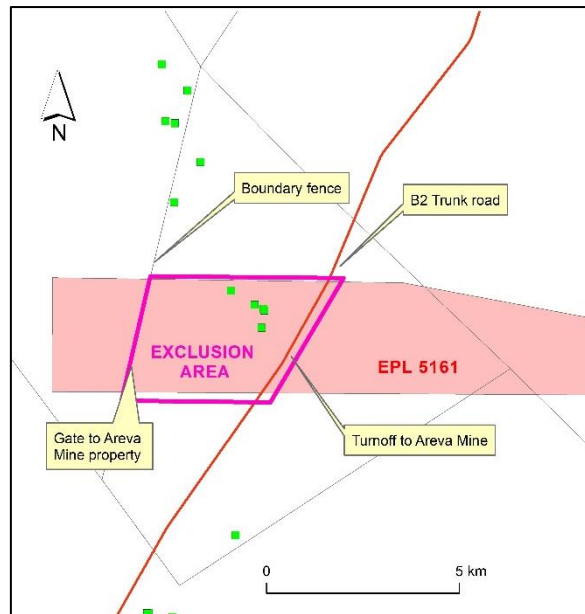


Figure 6: Proposed temporary Exclusion Area (No-Go Area) on EPL5161 to provide for conservation of archaeological/heritage resources associated with the April 1915 Battle of Trekopje pending detailed field assessment. The exclusion area stretches from the northern to the southern boundaries of EPL5161, and from the B2 trunk road at the turnoff to Areva Mine, to the Areva Mine access road gate (locked) on the Trekopje farm boundary fence.

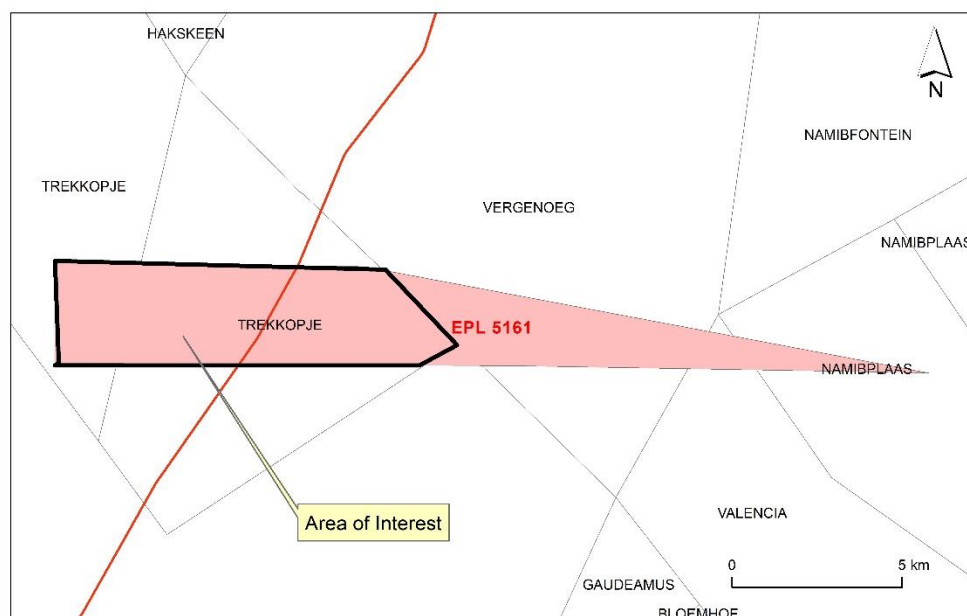


Figure 7: Parts of the farm Trekopje falling within EPL5161 which are of interest to the proponent.

6. BIBLIOGRAPHY

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Appendix 1: Chance Finds procedure

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

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

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

Responsibility:

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

Procedure:

Action by person identifying archaeological or heritage material

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

Action by foreman

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

Action by superintendent

- a) Visit site and determine whether work can proceed without damage to findings
- b) Determine and mark exclusion boundary
- c) Site location and details to be added to project GIS for field confirmation by archaeologist

Action by archaeologist

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

In the event of discovering human remains

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

