

28 April 2022

Environmental Compliance Consultancy
Windhoek
Namibia

For attention: Ms Diann Hoffman, Environmental Practitioner

ARCHAEOLOGICAL ASSESSMENT OF EPL 8408, OTJOZONDJUPA REGION, 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/heritage field survey and assessment was carried out on EPL 9408 (Farm Cleveland) in the Otjozondjupa Region. The field survey focussed in particular on a geomagnetic anomaly identified by the exploration leaseholder, B2 Gold, as a target for further investigation. The survey did not locate any archaeological remains as defined by the National heritage Act (27 of 2004) and it is therefore recommended that the project be permitted to continue. It is also recommended that the project adopt the attached Chance Finds Procedure in the event that buried remains are found in the course of site works.

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1. INTRODUCTION

1.1 Background

Environmental Compliance Consultancy (ECC) is carrying out an environmental assessment of EPL 9408 on behalf of B2 Gold. Mining and exploration activities are listed in the Environmental Management Act (2007) as activities requiring environmental assessment and the issuance of an Environmental Clearance Certificate.

Archaeological remains in Namibia are protected under the National Heritage Act (2004) and National Heritage Regulations (Government Notice 106 of 2005), and ECC appointed the undersigned, J. Kinahan, archaeologist, to carry out an assessment of the project area. A field visit to the site was carried out on 26th April 2022.

1.2 Terms of Reference

The primary task of the archaeological assessment reported here was to identify sensitive archaeological/heritage sites that could be affected by the proposed urban expansion. The assessment forms the basis of recommended management actions to avoid or reduce negative impacts, as part of the overall 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/heritage 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 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/heritage 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 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. THE RECEIVING ENVIRONMENT

EPL 8408 lies on the farm Cleveland (17) in the western parts of the Otjozondjupa Region of Namibia. The exploration lease is characterized by dense tree and shrub savanna and relatively flat terrain, with superficial Kalahari sandy loam soils and poorly developed drainage. The location of the exploration lease is shown in Figure 1, which indicates the approximate extent of a geomagnetic anomaly which is the focus of exploration by B2 Gold.

Earlier surveys in the Otjozondjupa Region have revealed a fairly well preserved archaeological record covering most of the last one million years, although no sites have been recorded in the vicinity of the farm Cleveland. The archaeological site distribution in the Figure 1 inset map shows that the Otjozondjupa Region is relatively

rich in archaeological remains although only a small part of the area has been surveyed in detail, mainly in the course of archaeological assessments for mining and infrastructure projects.¹

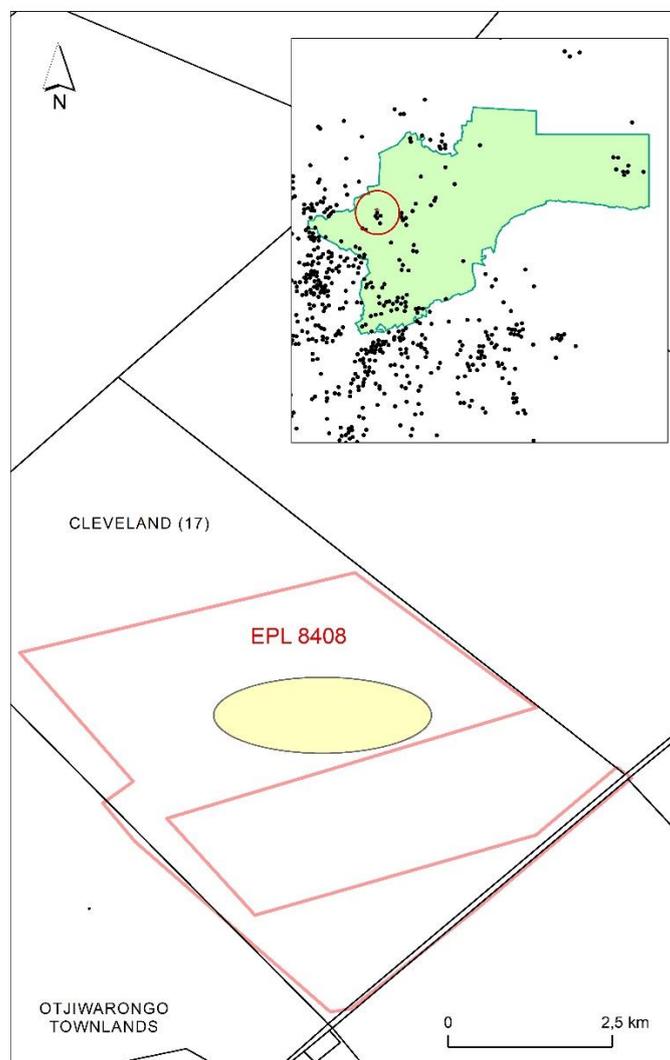


Figure 1: The location of EPL 8408 on the farm Cleveland (17) indicating the focus of exploration activity (pale yellow ellipse), and showing the known distribution of archaeological sites (black dots) in the Otjozondjupa Region, with EPL 8408 circled red.

¹ e.g. Archaeological assessment of current mineral exploration works at Otikoto, Otjozondjupa Region. QRS Job 83, May 2007; Assessment of historical site on proposed Otjikoto-Ohorongo 132kV power-line. QRS Job 106, January 2009; Archaeological assessment of the proposed Kalkveld Bulk Water Supply Scheme. QRS Job 175, May, 2013; Archaeological assessment of the Okorusu Fluorspar expansion project. QRS Job 182, May 2013; Recent grave site on Farm Otjikoto (573), Otjozondjupa Region. QRS Job 186, June 2013; Archaeological field survey for the proposed Otavi Steel Project. QRS Job 202, May 2014; Archaeological field survey for the Wolfshag Zone, B2 Gold Otjikoto project. QRS Job 204, July 2014; Archaeological Assessment Of The Otjikoto – Masivi Powerline Route. QRS Job 287, March 2021.

In general, the archaeology of the Otjozondjupa Region has the following major characteristics:

- 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, as well as graves, comprising small cemeteries near farm settlements or isolated burial sites.

Most archaeological remains found in the Otjozondjupa Region are surface occurrences. These are primarily scatters of stone artefacts or isolated finds that have been moved from their original context by sheet erosion.

²Heritage sites relating to the historical period relate mainly to farming settlement which commenced in the early colonial period. Following the 1897 *Rinderpest* epidemic when Ovaherero communities in central Namibia lost almost all their livestock and became indebted to traders, speculators began to acquire large swathes of valuable land. A broad strip of land was demarcated for the construction of the Otavi railway and all Ovaherero residing within this area were expelled.³ The farm Cleveland (17) lies within this strip.

3.2 Observations

A detailed foot survey of the area indicated in Figure 1 and focussing on the exploration target identified by B2 Gold found no significant archaeological sites. While EPL 8408 is therefore considered to have a low archaeological/heritage sensitivity it should be borne in mind that some archaeological features such as graves may lie in densely overgrown vegetation. Bush clearing may reveal such features which do not necessarily have clearly recognizable headstones indicating the name and date of the burial. Pre-colonial burial sites are generally

² A First Approximation of Archaeological Site Distributions in Namibia. QRS Job 15, June 2001.

³ Drechsler, H. 1980. *Let us die fighting: The struggle of the Herero and Nama against German imperialism*. London: Zed Press; Gewald, J-B. 1999. *Herero Heroes: A socio-political history of the Herero of Namibia*. London: James Currey; Bley, H. 1996. *Namibia under German rule*. Studien zur Afrikanischen Geschichte Bd. 5. Hamburg: Lit Verlag.

isolated from settlements and other features such as waterholes. Such burials usually consist of roughly circular stone cairns, roughly 2m in diameter, and may occur in groups of five or more. Colonial or Christian-style burials are similarly isolated; they are usually elliptical stone cairns roughly 2.5m in length and invariably oriented east-west.

4. CONCLUSIONS & RECOMMENDATIONS

No archaeological sites requiring further investigation or mitigation were located in the course of the survey. It is however recommended that the proponent should adopt the Chance Finds Procedure in Appendix 1 as part of the project Environmental Management Plan.

The project proponent is required to report any archaeological finds to the National Heritage Council. A permit issued by the National Heritage Council is also required for any further investigation of archaeological sites or the installation of site conservation measures.

I hope you will find this report satisfactory

Yours sincerely

A handwritten signature in black ink, appearing to read 'J. Kinahan', is written over a light grey rectangular background.

J. Kinahan PhD

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.

