A PHASE 1 REPORT ON HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 9055, LOCATED WITHIN THE DORO !NAWA CONVERVANCY, KUNENE REGION, NAMIBIA.

Prepared for:

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DISCLAIMER:

I hereby declare that:

a. I have the knowledge of and experience in conducting Heritage Impact Assessments (HIA),

including knowledge of the Acts, Regulations, and Guidelines that are relevant to

Namibian legislation, specifically the National Heritage Act (27 of 2004), as well as

regulations and guidelines that have relevance to the proposed activity.

b. I have performed the work relating to the application objectively, even if this results in

views and findings that are not favourable to the proponent.

c. Although all efforts are made to identify all sites of heritage significance during an

assessment of study areas, the nature of heritage resources are as such that it is always

possible that hidden or subsurface sites, features or objects could be overlooked during the

study.

d. Clients & Developers should not continue with any development actions until the National

Heritage Council of Namibia has provided final comments on this report.

C. Nekare

World Heritage Specialist (WHS)

SUMMARY

A heritage impact assessment (HIA) is a survey of mapping any significant heritage resources before any development commence, so that these resources are managed within a sustainable framework that support development to proceed (if appropriate) without undue impacts to the fragile heritage. This HIA report aims to fulfil the requirements of the National Heritage Council (NHC) such that a consent can be issued by them for consideration by METF, Department of Environmental Affairs who will review the EIA report and grant/refuse authorization of the ECC. The subject EPL 9055 contain heritage finds that are distributed uneven. The identified heritage sites show that heritage resources (including rock engravings and stone ruins are mainly located in the rocky terrain while the burial ground is found at the bank of Huab River. The finds in this HIA are assessed as being of high significance within a local context. This cultural landscape was used and occupied virtually by the late stone people, but generally at a very low demographic. To this effect, the EPL falls within the Doro !Nawas Conservancy, Namibia's first community conservancy, as a result the local landscape has been heavily altered in recent years by the anthropogenic activities. In terms of heritage resources, Kunene region is acknowledged as a globally important archaeological landscape (Kinahan, 2021).

Previous work in the larger geographical area was utilized in the background study. This report discusses the results of both the background research and field assessment and provides recommendations on the way forward at the end.

From a Heritage Point of View, it is recommended that the proposed development be allowed to continue, taking into consideration the recommendations put forward at the end of the report.

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1. INTRODUCTION

World Heritage Specialist (Christian Nekare) was appointed by KoBold Metals Namibia (Pty) Ltd to conduct a Phase 1 Heritage Impact Assessment for the proposed exploration activities on EPL 9055, located within the Doro !Nawa Convervancy, Kunene Region, Namibia.

Kunene Region is a point of reference for community conservancies worldwide, but it has yet to make a definitive leap towards heritage protection, the phenomena spanning in the entire country. After the enacting of the National Heritage Act (No. 27 of 2004), the government desire to minimize deterioration and loss of heritage resources is evident in its public policy and has taken great measures in ensuring it would be transmitted to posterity. In Namibia, an important awareness among the citizens has emerged that justify that the success of heritage protection depends on community involvement. It has been said – though the same applies to other regions – that Kunene Region's heritage is a unique case because of the importance of the context in which it was produced, of the extent of its geographical distribution. In general, many heritage sites face threats in the territory, these threats are complex and requires actions at different levels. For example, mining is a national threat which cannot be resolved by individual community. In Namibia, most heritage matters are administrated by the NHC. Though structures are in place to facilitate the implementation of a national cultural heritage protection strategy, the institution has limited resources to materialized an action plan.

Background research indicates that there are heritage resources featuring in the area within which the EPL falls. Additionally, the areas surrounding the proposed EPL area is described as a culturally sensitive landscape. Previous work in the larger geographical area was utilized in the background study.

The proponent indicated the location and boundaries of the EPL area and the assessment concentrated on this portion.

2. TERMS OF REFERENCE

A Heritage Impact Assessment (including Archaeological, Cultural heritage, Built Heritage and Paleontological Assessment) to determine the impacts on heritage resources within the study area.

The following are the required to perform the assessment:

- A desk-top investigation of the area;
- A site visit to the proposed development site;
- Identify possible archaeological, cultural, historic, built and paleontological sites within the proposed development area;
- Evaluate the potential impacts of construction and operation of the proposed development on archaeological, cultural, historical resources; built and paleontological resources; and
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural, historical, built and paleontological importance.

3. LEGISLATIVE REQUIREMENTS

The purpose of the National Heritage Act (No. 27 of 2004) is to recognize and promote heritage resources by outlining principles for conservation and development. The main objective of this Act is to identify and conserve heritage resources which are significance. The Act sets out

processes for the management of the National Heritage Register (NHR), including the establishment of a NHC. The purposes of this Council include safeguarding heritage resources, advising the Minister, guiding the public on best practice, promoting public awareness and administration of the heritage resources. On top of the above regulation, the National Environmental Management Act (No.7 of 2007) and its regulations (2012) addresses matters of National Environmental Significance under the Act include heritage items listed under the National Heritage List. Ministerial approval is required under the Act for proposals involving significant impacts to National heritage resources.

4. METHODOLOGY

4.1. Survey of literature

A survey of available literature was undertaken in order to place the development area in a heritage context. The sources utilized in this regard are indicated in the bibliography.

4.2.Field survey

The field assessment section of the study is conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed.

4.3. Oral histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all

circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4.Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

4.5. The limitations and assumptions associated with this heritage impact assessment are as follows;

- ✓ Field investigations were performed on foot and by vehicle where access was readily available.
- ✓ Sites were evaluated by means of description of the cultural landscape, direct observations and analysis of written sources and available databases.
- ✓ It was assumed that the site layout as provided by KoBold Metals Namibia (Pty) Ltd is accurate.
- ✓ We assumed that the public participation process performed as part of the EIA process was sufficiently encompassing not to be repeated in the Heritage Assessment Phase.

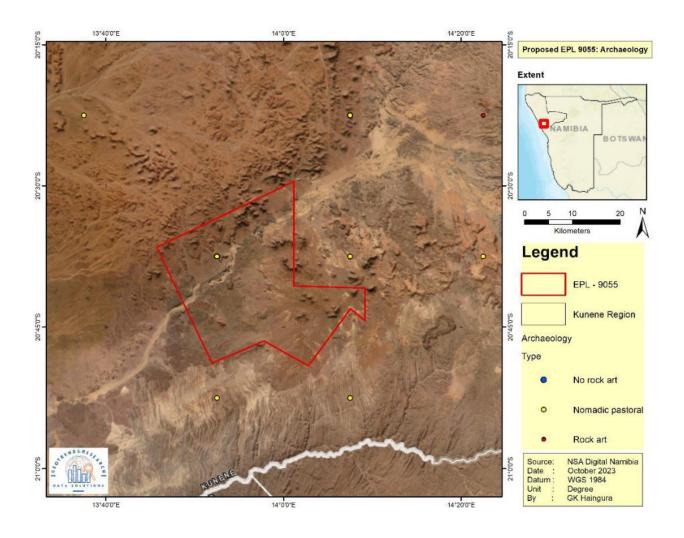


Figure 2: Overview of heritage sites in the EPL area: (Credit: Geotrend, 2023).

5. THE RECEIVING ENVIRONMENT.

The wide Kunene Region consists of an extensive deposit of Kalahari and Namib-type sands (approx. 70my to recent) with a single dominant fluvial system. The region has received only limited attention so far archaeologically. The amateur who examined the area, encountered the presence of the Pliocene and Pleistocene heritage materials (MacCalman and Grobbelaar, 1965). Simultaneously, the region contains paleontological resources and various independent survey during the past decade have revealed that these resources are uneven distributed across the broader region. These available evidence demonstrates that at times, the

climate in Kunene Region was wetter and more tropical than present. The latest find of the Ozombindi bone breccia challenges scientist to catalogue these resources. Existing dataset shows that all mapped paleontology resources are located south of Opuwo and relatively close to Sesfontein. Explore of Google satellite detailed a strong likelihood that there are other paleontology resources in the region, and these should be systematically examined. Supplementary by widespread clusters of rock art in the arid upland environment. At present, twyfelfontein falls within the Kunene Region and it is a site of ancient rock engravings. Displaying one of the largest concentrations of rock petroglyphs in Africa, since 2007, UNESCO approved Twyfelfontein as Namibia's first World Heritage (https://en.wikipedia.org/wiki/Twyfelfontein). These cultural landscape has a rich cultural environment that encompasses a history of human and environment exchange. The fact that the landscape is physical impressive with geological formation, means that this area has so much potential for geomorphology tourism. Observations on stone tool use by hunter-gatherer groups and some of the detailed archaeological characteristics of nomadic pastoral settlement patterns in the area (Kinahan, 2001). Some deposits from the larger region contain stone tools of Early Stone Age, Middle Stone Age and Late Stone Age aspect (Pickford, 2019, 2020).

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago: Characterized by surface scatters of stone tools and artefact debris, usually transported from original context by fluvial action, and seldom occurring in sealed stratigraphic context.

Middle Stone Age (MSA) less than $300\ 000 - 20\ 000$ years ago: Characterized by dense surface scatters and rare occupation evidence in sealed stratigraphic context, with occasional associated evidence of food remains.

Later Stone Age (LSA) 40 000 years ago – 2000 years ago: Characterized by increasingly

dense

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

b. Historical (the last ca. 250 years): Characterized 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.

Evidence of historical and contemporary use of the area was observed, though burial sites, contemporary settlements and other human geographies. The Huab River is the dominant landform within the EPL Area. Much of the River has been dredged and its shape has been dramatically changed due to this actions. The Huab River incorporates all of the river component of the EPL Area. The River is a significant cultural site for Riemvasmakers people, connected to their livelihood. The river has been subject to multiple assessments that all detail its cultural significance to the Riemvasmakers people.

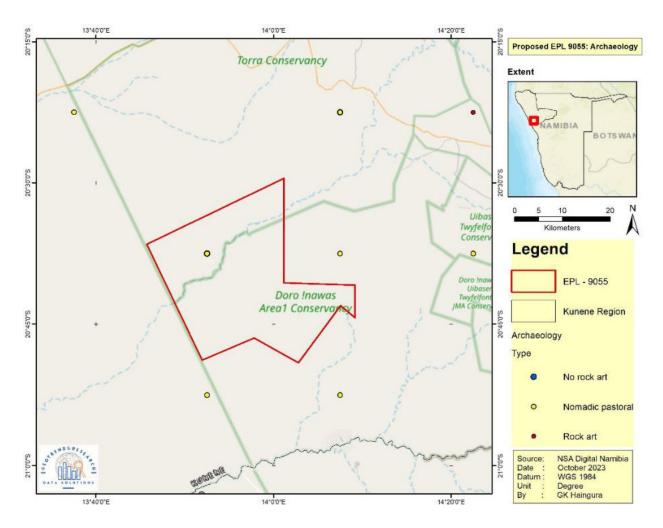


Figure 3: Locality of the proposed EPL 9055, (Credit: Geotrend, 2023).

6. DESCRIPTION OF THE AREA

The EPL area is located in the Doro !Nawa conservancy in the Kunene Region, in Khorixas district. The area is an open conservancy, large portions of the EPL area have been heavily modified by wildlife and human activities. Access to the EPL area is by gravel road from Khorixas. Within the EPL area numerous informal tracks presumably made for and by the tourist trade criss-cross the area, and crossed by the Huab River. Several lodges and tent camps are found in the area, namely the Twyfelfontein lodge, the Aba-Huab Tent Camp and the Mowani Tent Camp. The EPL area is generally characterized by a mix of mid-late 20th century development. In its current location, there are no impacts expected to the heritage

resources as a result of the proposed development. This is due to the location of these heritage resources in relation to the potential exploration sites.

7. FINDINGS

None of the identified heritage resources in the EPL area has been subjected to State sanctioned conservation. The EPL area contains valuable pre-historic heritage resources and is in the vicinity of a UNESCO listed heritage site (*Twyfelfontein*). The surface was surveyed for possible tangible heritage resources and applied the best possible technologies for this HIA. The findings were documented through photographs. A Samsung GPS Logger (2018) was used to record the heritage finds within the EPL areas (Nekare, 2023). Table 1 shows the location of the heritage resources within the EPL area.

Table 1. Summary of the identified heritage resources/ sites inside and outside the EPL area.

Heritage Resources	Coordinates	Status	Protection
	GPS		Afforded
Site 1: Krone- Main panel of the rock art site. Is the panel with the highest concentration of animal track engravings, amounting to almost 300 in number.	S 20.48627 ° E 14.02714 °	Known to the conservancy, noted by the NHC and yet to feature on its NHR. Inside the EPL area.	Inactive, no statutory protection.
Site 2: Eager Rock-, with engravings inside exfoliated rock face; from the position of the photographer at the entrance.	S 20.48942 ° E 14.02714 °	Known to the conservancy, noted by the NHC and yet to feature on its NHR. Inside the EPL area. Vandalized and fire inside the rock that contain the art.	Inactive, no statutory protection.

Site 3, Stone ruins probably belonged to a nomadic band of san people.	S 20.49419° E 14.12096°	Known to the conservancy, noted by the NHC and yet to feature on its NHR. Stone removed and displaced from original position. On top of a hill that allowed them to spot danger.	Inactive, no statutory protection.
Site 4, Stone ruins probably belonged to a nomadic band of san people.	S 20.57813° E 13.96133°	Known to the conservancy, noted by the NHC and yet to feature on its NHR. Overlooking over Huab river. Stone ruins still intact in original position.	Inactive, no statutory protection.
Site 5, Graveyard since 1974.	S 20.46711° E 14.19428°	Known to the local community and the Traditional Authority. Still in active use.	Inactive, no statutory protection.
Site 6, Jan Snel memorial area.	S 20. 49419° E 14.12096°	Known to the conservancy.	Inactive, no statutory protection but annually visited.
Site 7, Rhino robbing rock.	S 20.49979° E 14.09209°	Known to the conservancy.	Inactive, no statutory protection but annually visited.
Site 8, Many contemporary village as this one are featuring within the EPL area, probably more than 10.	S 20. 46969° E 14. 18625°	Known to the conservancy.	Inactive, no statutory protection but annually visited.



Figure 1: Views of rock shelter that contains the engravings at Krone



Figure 2: Views of rock slab that contains masses of rock engravings at Krone

Site 2:



Figure 1: Views of Eager Rock-with engravings inside exfoliated rock face and the art has been vandalized.

Site 3:



Figure 1: Views of Stone ruins probably belonged to a nomadic band of san people.

Site 4:



Figure 1: Views of Stone ruins probably belonged to a nomadic band of san people.



Figure 2: Views of Stone ruins probably belonged to a nomadic band of san people.

Site 5:



Figure 1: Views of the Graveyard that has been in use since 1974.

Site 6:



Figure 1: Views of the Jan Snel tombstone.

Site 7:



Figure 1: Views of the Rhino robbing rock.

Site 8:



Figure 1: Views of De-riet an example of a contemporary village in the area.

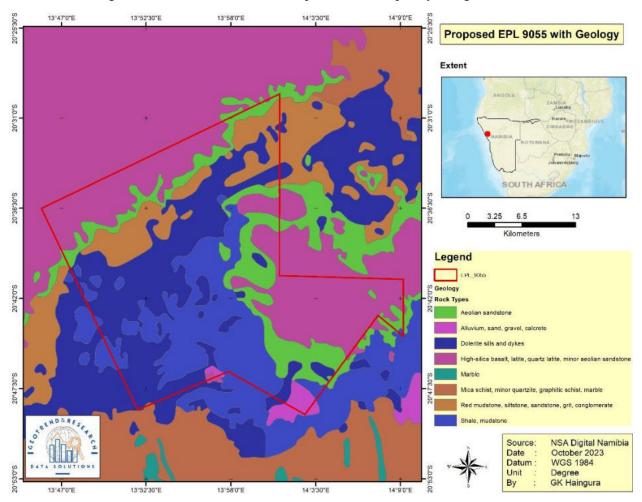


Figure 3: Geology of the proposed EPL 9055, (Credits: Geotrend, 2023).

8. GEOLOGY OF THE AREA

The EPL area is located within the Damara Belt in North West Namibia, the geological materials consist mainly of volcanic and sedimentary rocks of the Karoo sequence. To the west, late Permian dolerite and Jurassic Twyfelfontein formation with underlying conglomerate. The EPL area is dominated by dolerite sills and basalts of the Etendeka formations. The sandstones have been preserved intact in most situations following the rapid but passive emplacement of overlaying flood basalt of the Etendeka group. The Permian Karoo sediments are found to be at the base. Some small parts of the EPL area, on the North Eastern part, are covered by the top units, shale of Huab formation and fluvial-deltaic sandstone of Tsarabis.

9. IMPACT ASSESSMENT (FIELD ASSESSMENT)

An assessment grading was conducted on the identified heritage resources within the coverage of the EPL areas, grading adhered to NHC guideline of 2021 criteria. The grading system shows the importance assigned to each of the identified heritage resources and the degree of importance they should be dealt with. Below follow the completed statements of significance for all the heritage resources in the concerned areas.

The tables below grades heritage significance for heritage resources in Namibia.

Level of significance	Grading	Description
Exceptional/upper	5	Major national heritage resources.
higher		Rare & outstanding example.

		Containing unique evidence of high regional & national significances.
Considerable high	4	Very important to the heritage of the region.
		High degree of integrity/ authenticity.
		Multi-component site and objects
		High research potential
Moderate	3	Contributes to the heritage of the locality and region
		Has some altered or modified elements, not necessarily
		detracting from the overall significance of the place.
		Forming part of an identifiable local distribution or group.
		Research potential.
Low	2	Isolated minor finds in undisturbed primary context, with
		diagnostic materials
		Makes some contribution to the heritage of the locality,
		usually in the combination with similar places or objects

Little	1	Makes little contribution to the heritage resources of the
		locality.
		Heritage resources in a disturbed or secondary contexts,
		without diagnostic or associated heritage.
Zero/ no significance	0	Absence of heritage resources
		Highly disturbed or secondary context, without diagnostic or
		associated heritage

Paleontology

No sites of paleontological value are located within the coverage of the EPL areas.

Nature of Impacts: No sites are located within the EPL; therefore, no impacts are anticipated.

Extent of Impact: Due to the lack of paleontological sites within this area, the extent of impacts will be zero.

Level of significance	Grading	Description
Exceptional/upper	5	Major national heritage resources.
higher		Rare & outstanding example.
		Containing unique evidence of high regional & national
		significances.
Considerable high	4	Very important to the heritage of the region.

		High degree of integrity/ authenticity.
		Multi-component site and objects
		High research potential
Moderate	3	Contributes to the heritage of the locality and region
		Has some altered or modified elements, not necessarily detracting from the overall significance of the place.
		Forming part of an identifiable local distribution or group.
		Research potential.
Low	2	Isolated minor finds in undisturbed primary context, with diagnostic materials
		Makes some contribution to the heritage of the locality, usually in the combination with similar places or objects
Little	1	Makes little contribution to the heritage resources of the locality.
		 Heritage resources in a disturbed or secondary contexts, without diagnostic or associated heritage.
Zero/ no significance	0	Absence of heritage resources
		Highly disturbed or secondary context, without diagnostic or associated heritage

Prehistoric

Four (4) Prehistoric sites were identified and known to the locals prior to the assessment of the present survey. The concerned EPL area contain mass concentration of engravings and stone ruins. The engravings and stone ruins were found in the area in isolated context. Although other heritage materials such as Stone Age deposits could not be definitively identified on any of the sites in the area, these deposits could be underneath alluvial deposits and could be exposed by exploration. It is important that these sites are safeguarded.

Nature of Impacts: The development can result in the localized uncovering of more sites from the pre-historic era.

Extent of Impacts: Taking into account the four prehistoric heritage sites in the study area, the impacts from the proposed development can be seen as minimal and should be managed as suggested in the forward recommendation.

Level of significance	Grading	Description
Exceptional/upper	5	Major national heritage resources.
higher		Rare & outstanding example.
		Containing unique evidence of high regional & national significances.
Considerable high	4	Very important to the heritage of the region.
		High degree of integrity/ authenticity.

		Multi-component site and objects
		High research potential
Moderate	3	Contributes to the heritage of the locality and region
		Has some altered or modified elements, not necessarily
		detracting from the overall significance of the place.
		Forming part of an identifiable local distribution or group.
		Research potential.
Low	2	Isolated minor finds in undisturbed primary context, with
		diagnostic materials
		Makes some contribution to the heritage of the locality,
		usually in the combination with similar places or objects
Little	1	Makes little contribution to the heritage resources of the
		locality.
		Heritage resources in a disturbed or secondary contexts,
		without diagnostic or associated heritage.
Zero/ no significance	0	Absence of heritage resources
		Highly disturbed or secondary context, without diagnostic or
		associated heritage

Post-Contact Heritage

Community graveyard at De-riet settlement since 1974, the graveyard is well safeguarded, still in

use and fenced off. Several buildings making up farmstead are still intact and inhabited whilst

others have been abandoned. Some buildings, although inhabited, are in poor condition.

Nature of Impacts: No impacts.

Extent of Impacts: None anticipated

Impact statement

Paleontological sites

No paleontological sites of high value could be identified at this EPL.

Mitigation

No mitigation is recommended

Archeological sites

Four prehistoric sites were identified. Possible sub-surface sites could be disturbed by future

mining activities.

Mitigation

Mitigation is recommended.

Built Environment

Heritage sites associated with the built environment is located within this EPL area. However,

they are away from the targeted EPL area.

Mitigation

No mitigation is recommended.

These HIA report shows that the larger cultural landscape of the EPL area was used and occupied virtually by the early inhabitants of Namibia, but generally at a very low demographic. Much of the evidence is consistent with transitory movement through the landscape and occasional and short-duration visits by small parties of hunters-gatherers.

Scale	Vulnerability Description
0	Not vulnerable
1	No threat posed by current or proposed development activities.
2	Low or indirect threat from possible consequences of development
	(e.g. soil erosion).
3	High likelihood of partial disturbance or destruction due to close
	proximity of development.
4	Direct and certain threat of major disturbance or total destruction.

Table 4: The vulnerability rating developed by the Quaternary Research Service, (After Kinahan 2012).

No direct surface impacts are projected in the location of the identified heritage sites. Minor surface impacts not directly related to the development may occur in future in the whole EPL area, for example exploratory drilling or vehicle access. If impacts are identified as potentially arising, either the works can be modified to reduce or avoid the fragile environment. As discussed in these HIA report, potential impacts during operation are expected to be limited and may include indirect impacts associated with subsurface heritage resources.

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

Table 5: Definition of reversibility ratings Irreversible developed by the Quaternary Research Service.

10. CONCLUSIONS AND RECOMMENDATIONS

This HIA is cognizant that pre-historic heritage resources are treated with primary importance in Namibia and decisions about the management of these resources should be made in consultation with the relevant local stakeholders. The assessment observed that the continuation of unplanned land-use practices in the area will have negligible impact on heritage resources too. These area is an open conservancy, therefore, provisions included in the management plan of the conservancy should be extended equally to the management of heritage resources. It is recommended as part of the approval that a Heritage Management Plan (HMP) should be developed for the EPL area and the following management and mitigation measures are proposed:

- Develop a HMP for the EPL area and should be implemented as per the NHC standards.
 Equally harmonized together with the broader conservancy management plan.
- A holistic precautionary measures be taken to protect the identified heritage resources within the EPL area and promote documentation of all heritage resources and dissemination to relevant stakeholders;
- The identified grave and built heritage resources should be mapped on the development map to reflect their existence. Recorded heritage finds should be avoided with a 30 m buffer.
- The EPL area should be monitored by a heritage specialist during all phases of the development and before exploration commencing, the final layout should be subjected to a heritage walkthrough. The HIA concluded that a Chance Find Protocol should form part of the development.

• APPENDIX A: Chance find Procedure

A. 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, advice management, and recovers remains

B. Procedure:

Action by the person (operator) 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

C. Action by foreman:

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

D. Action by superintendent

- (a) Visit the site and determine whether work can proceed without damage to findings;
- (b) Determine and mark the exclusion boundary
- (c) Site location and details to be added to the Archaeological Heritage database system.

E. Action by archaeologist

- (a) Inspect site and confirm the addition to AH database system;
- (b) Advise National Heritage Council and request a permit to remove findings;
- (c) Recovery, packaging and labeling of findings for transfer to National Museum

F. 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 Guidelines; and
- (d) Recovery of remains and removal to National Museum or National Forensic Laboratory, or as directed.

11. Reference

https://en.wikipedia.org/wiki/Twyfelfontein

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