



## PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT:



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DOCUMENT VERSION 1.0 – Draft

**THE PROPOSED MINING RIGHT AMENDMENT APPLICATION ON A PORTION OF PORTION 129 OF THE FARM ZANDFONTEIN 447-JQ WITHIN THE JURISDICTION OF THE MADIBENG LOCAL MUNICIPALITY, MAGISTERIAL DISTRICT OF BRITS, NORTH-WEST PROVINCE**



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**HES/325/AIA**



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DISTRICT OF BRITS, NORTH-WEST PROVINCE**

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## Document History and Distribution

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**TITLE:**

The Phase 1 Archaeological Impact Assessment for the proposed mining right amendment application on a portion of portion 129 of the farm Zandfontein 447-JQ within the jurisdiction of the Madibeng Local Municipality, Magisterial District of Brits, North-West Province.

**OUR REFERENCE  
NO.:**

HES/325/AIA

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## Abbreviations

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<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Environmental Management Plan/Programme
<b>EAP</b>	Environmental Assessment Practitioner
<b>I&amp;AP</b>	Interested and Affected Party
<b>LIA</b>	Late Iron Age
<b>LIHRA</b>	Limpopo Heritage Resources Authorities
<b>LSA</b>	Late Stone Age
<b>MSA</b>	Middle Stone Age
<b>NEMA</b>	National Environmental Management Act
<b>NHRA</b>	National Heritage Resources Act
<b>SAHRA</b>	South Africa Heritage Resource Agency



## Glossary

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- Archaeological sites** ; a) Material remains resulting from human activity which are in a state of disuse and are in or on and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
- b) Rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area whinging 10 m of such representation;
- c) Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.
- Biodiversity** : The variety of life and its processes; including the variety of living organisms the genetic differences among them, the communities and ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning, yet ever changing and adapting.
- Clearing** : The clearing and removal of vegetation, whether partially or in whole, including trees and shrubs, as specified.
- Environment** : The surroundings within which humans exist and that is made up of:
- a) The land, water and atmosphere of the earth;
- b) Micro-organisms, plant and animal life;
- c) Any part or combination of a) and b) and the interrelationships among and between them; and
- d) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being (*i.e.* the social environment).

- Habitat** : A dynamic system of plant, animals and micro-organism communities and their non-living environment interacting as a functional unit.
- Heritage resource** : All those heritage resources that are of cultural significance or other special value for present and future generations, and which are accordingly considered part of the National Estate. In this regard, the National Estate includes those items identified in terms of Section 2 of the National Heritage Resources Act (No 25 of 1999).
- Natural vegetation** : The existing vegetation species, indigenous or otherwise, of trees, shrubs, groundcover, grasses and all other plants found growing on the site.
- Site** : The piece of land and any other place on, under, over, in or through which the development activity are to be executed or carried out. The site shall include the activity area, internal roads and access route.
- Weeds and invader plants** : Weeds and invader plants, as defined under Section 1 of the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983) and Government Notice R1048 of 25 May 1984 Part 2, or any list of invaders identified by the Agricultural Research Council and the Plant Protection Research Institute (Handbook No.5 – Plant Invaders of Southern Africa).

## Executive Summary

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HES was appointed to undertake a archaeological impact assessment of the proposed mining right amendment application on a portion of portion 129 of the farm Zandfontein 447-JQ within the jurisdiction of the Madibeng Local Municipality, Magisterial District of Brits, North-West Province., in terms of the National Heritage Resources Act No. 25 of 1999. The study was undertaken on the 8<sup>th</sup> of February 2013.

The Phase 1 Archaeological Impact Assessments for the proposed project revealed no archaeological/ or heritage resources within the footprint of the proposed area. The area is vastly disturbed by past and current activities related to mining. Nonetheless, an informal grave-yard was noted. However, this grave-yard is about 80m from the proposed site. As such, it can be argued that this grave-yard is on the buffer-zone. In consideration of the nature of the proposed development, it is important to comment about these graves, although they would not be directly impacted. These graves appear to be over 60 years of age, as such, they have high archaeological value. In total they are seven, and they are marked by stone cairns.

### Key Recommendations:

- No stone robbing or removal of any material is allowed. Any disturbance or alteration on these sites (informal-graveyards) would be illegal and punishable by law, under section 36 (3) of the National Heritage Resources Act NHRA of 1999 (Act 25 of 1999).
- Maintain a reasonable buffer zone around the identified graves (approximately 20-25m). No dumping of construction material is allowed within this buffer zone and no alteration or damage on these sites may occur.
- The graves should be marked by a visible tape i.e., danger tape, for the duration of the project, and workers should be notified about these graves.
- Note that it is the responsibility of the developer to notify contractors and workers that archaeological material (e.g. pottery, remains of stone-walling, graves, etc) and fossils are often located underground.

The developer is made aware that archaeological material (e.g. pottery, remains of stone-walling, graves, etc) and fossils are often located underground. Thus, unavailability of archaeological material on the footprint of the proposed area does not mean absentee, archaeological material might be hidden underground, as such the client is reminded to take precautions during the mining activities.

Should any archaeological material be unearthed accidentally during the course of construction, SAHRA should be alerted immediately and construction activities stopped.

We recommend to South African Heritage Resources Agency (SAHRA) to approve the project to continue with recommended archaeological mitigation.

# 1 Introduction

Holistic Environmental Services Cc was appointed by Restigen (Pty) Ltd on behalf of Rolfes Silica (Pty) Ltd to conduct the mining right amendment application which will include an additional property (6 ha) to an existing mining right for the mining of sand and silica as contemplated in section 102 of the Mineral and Petroleum Resource Development Act (MPRDA), (Act 28 of 2002). The appointment was to conduct the Phase 1 Archaeological Impact Assessment (AIA). This study is often commissioned as part of the heritage component of an Environmental Impact Assessment (EIA) process. The proposed development constitutes an activity, which may be harmful to the heritage resources that could occur in the demarcated area. The management and protection of heritage resources is a requirement of the National Environmental Management Act No.107 of 1998 (NEMA) as amended in terms of the NEMA 2010 regulations and Section 38 of the National Heritage Resources Act (NHRA - Act No. 25 of 1999).

The purpose of the HIA procedures is to identify and describe the following:

- Description of the activity and its location;
- Description of affected environment;
- Identify heritage sites;
- Identify archaeological sites;
- Determine whether the heritage or archaeological remains will be affected by the proposed development;
- Methods used to assess risk;
- Summary of heritage risk assessment;
- Mitigation and/or precautionary measures.

The purpose of the report is to inform the applicant/client about the heritage resources and their significance, while making appropriate recommendations with regard to the management thereof. It is also essential in that it provides South African Heritage Resource Agency (SAHRA) with the necessary information regarding for them to make an informed decision regarding the following:

- Whether it has objections with regard to the development;
- The conditions upon which such developments might proceed;
- The sites to which permits for destruction is required;
- Whether the sites require mitigation and what it should comprise of;
- The measures that should/can be put in place to protect sites that should be conserved.

## 1.1 Project objective and scope

The purpose of the study was to conduct a detailed site survey and have a holistic understanding of the sensitivity of the proposed area for a mining. From a cultural heritage point of view this survey which for the purpose of this report will be referred to as *archaeological impact assessment* is used to integrate cultural heritage management with the impact of planning proposals prepared to provide a detailed and holistic framework for decision making, and for the implementation of a coherent set of appropriate actions for the conservation of cultural heritage sites if found. Impact assessments highlight the many issues facing sites in terms of site management, conservation, monitoring and maintenance and the environment in and around the site.

## 2 Archaeological Impact Assessment Report

This Phase 1 archaeological report fulfils the requirement of the NHRA of 1999 (Act 25 of 1999). The structure of this report has been based on section 38 of the NHRA of 1999, which clearly specifies the required content of a Phase 1 HIA (or AIA) report.

### 2.1 Full Particulars of Heritage Specialist

<b>Company:</b>	Holistic Environmental Services Cc
<b>Heritage Assessment Practitioner:</b>	Mr. Munyadziwa Magoma
<b>Qualifications:</b>	BA (UNISA). Hons (UNIVEN). Archaeology: [ASAPA CRM Member].
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<b>Web:</b>	<a href="http://www.holistic-services.co.za">www.holistic-services.co.za</a>

## 2.2 The Relevant Authorities

As the proposed activity will take place within the jurisdiction of the North-West Province, the relevant agency in this case is:

South African Heritage Resources Agency (SAHRA)

Ms. K. Smuts

The Chief Executive Officer

111 Harrington Street

Cape Town

8001

Tel: (021) 462 4502

Fax: (021) 462 4509

E-mail: [ksmuts@sahra.org.za](mailto:ksmuts@sahra.org.za)

## 3 Methodology

- A desktop study was first undertaken to better understand the nature of the activity, this study involve the investigation of the history of the area through internet search and consultation with relevant authorities. In addition, SAHRA inventory was searched to very what other researcher have found in the area. More so, a library at the University of Pretoria was consulted to help with further understanding the area around the proposed site.
- The area was inspected on **08<sup>th</sup> of February 2013**
- To make solid defensible judgment a ground survey through acceptable archaeological standard was undertaken with no attempt to alter with the environment, the survey lasted approximately two and a half hour. It requires a detailed foot survey of the proposed area, area that could yield information were given a closer look. In addition a reasonable buffer area was given attention.
- Photographs were taken with a 10.1 mega-pixel Sony Cybershot Digital Camera and co-ordinates were taken with a handheld Garmin etrex Venture HC.
- The visibility of the soil was moderate; it is important to note that there was no research which was undertaken on the subsurface, since a permit is required from SAHRA to tamper with a site.
- The client is reminded that heritage material might be hidden underground and the Act requires that a developer cease all work immediately and notify relevant heritage resource agency (**in this case SAHRA**).

## 4 Proposed Activity

### 4.1 Locality

The proposed area for development is approximately 6ha. This site is located south of the town of Britz (North-West) and about 40km north of Krugersdorp (Gauteng). The site can be characterised as undulating with rolling hills, while certain section of the area is fairly flat. Rocky outcrop and few small shrubs define the area.

Currently the area is vacant of any activity. Nonetheless, certain section of the activity was in the past used as a dumping area of faulty machinery.

➤ Oral interview was conducted with the manager of the area, he pointed out that, except for the graves, he is not aware of any material of heritage within the area. Ccoordinates of the site is the following: S25°72969; E27°79085.



Figure 1: Locality Map



## 4.2 Description of Activity

The proposed amendment is to include an additional mining area (6 ha) to the existing mining right obtained for portion 95 ( $\pm 33$  ha) of the farm Zandfontein 447-JQ. The existing mining right on the said property is for the mining of sand and silica. According to the Mineral and Petroleum Resources Development Act (MPRDA) no person may remove, or mine for, any mineral without an environmental management plan and a license issued by the same department. This public participation process is being undertaken to meet the requirements of the MPRDA.

The additional mining area will be marked along the boundaries with suitable material for public safety. The top 200-300 mm soil will be removed and stored for use during rehabilitation in areas where it will not be disturbed by the progress of gravel excavation and removal. A grader will be used to clear and dig up the area to loosen topsoil and a front loader will load the material into trucks for storage. Water trucks will be used to water the area before and during the mining operation depending on dust. Following the extraction of the gravel, the mine will be rehabilitated. The walls of the mine will be sloped to minimise water run-off and increase the ability of the soil to retain water. Coarse material incapable of supporting vegetation will be covered with finer material and topsoil. The area will be landscaped on all sides to speed up establishment of grasses and shrubs.



**Figure 2:** View of the noted graves



**Figure 3:** An overview of the graves, note the distance from the informal-road as indicated by the red mark.



**Figure 4:** Note the malfunction machinery that have been dumped in the area proposed for development, as indicated by the arrow.



**Figure 5:** View of the eastern section proposed for development.



**Figure 6:** View of the southern section.



**Figure 7:** View of the northwest section of the proposed area.



**Figure 8:** View of operation currently taking place. This area is adjacent to the proposed site.

## 5 Legal Requirements

The activity is listed under Section 38 (1) of the National Heritage Resources Act NHRA of 1999 (Act 25 of 1999) and therefore requires a Phase 1 HIA (AIA) to be conducted. The following activities are listed under the Act and require a HIA (AIA) to be conducted:

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) the construction of a bridge or similar structure exceeding 50 m in length; and*
- (c) any development or other activity which will change the character of an area of land, or water -
  - (i) exceeding 5 000 m<sup>2</sup> in extent;*
  - (ii) involving three or more existing erven or subdivisions thereof; or*
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
  - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a Provincial Heritage Resources Authority;**
- (d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a Provincial Heritage Resources Authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

Section 3 of the national heritage resource Act (25 of 1999) lists a wide range of national resources that qualify as part of South Africa national estate. When conducting a Heritage Impact Assessment (HIA) the following heritage resources had to be identified:

- (a) Places, buildings structures and equipment of cultural significance*
- (b) Places to which oral traditions are attached or which are associated with living heritage*
- (c) Historical settlements and townscapes*
- (d) Landscapes and natural features of cultural significance*
- (e) Geological sites of scientific or cultural importance*
- (f) Archaeological and paleontological sites*
- (g) Graves and burial grounds including-*

- (i) ancestral graves*
- (ii) royal graves and graves of traditional leaders*
- (iii) graves of victims of conflict*
- (iv) graves of individuals designated by the Minister by notice in the Gazette*
- (v) historical graves and cemeteries; and*
- (vi) other human remains which are not covered by in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983)*

*(h) Sites of significance relating to the history of slavery in South Africa*

*(i) moveable objects, including -*

- (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens*
- (ii) objects to which oral traditions are attached or which are associated with living heritage*
- (iii) ethnographic art and objects*
- (iv) military objects*
- (v) objects of decorative or fine art*
- (vi) objects of scientific or technological interest; and*
- (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).*

**Other sections of the Act with relevance are the following:**

**Section 34(1)** *No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.*

**Section 35(4)** *No person may, without a permit issued by the responsible heritage resources authority:*

- *destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite*

**Section 36 (3)** *No person may, without a permit issued by SAHRA or a provincial heritage resources authority:*

- *destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside formal cemetery administered by a local authority; or*

- *bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.*

Other relevant legislation includes:

- The Constitution of South Africa Act of 1996 (Act No. 108 of 1996);
- Limpopo Environmental Management Act of 2003 (Act No. 7 of 2003);
- The National Environmental Management Biodiversity Act of 2004 (Act No. 10 of 2004);
- The National Environmental Management Act of 1998 (Act No. 107 of 1998);
- The National Environmental Management Biodiversity Act of 2004 (Act No. 10 of 2004) and the regulations and lists regarding threatened and protected species ;
- White Paper on Integrated Pollution and Waste Management for South Africa.

## 6 Site Significance

The *significance* of the sites and artefacts are determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

### (a) Historic value

- Is it important in the community, or pattern of history?
- Does it have strong or special association with the life or work of a person, group or organisation of importance in history?
- Does it have significance relating to the history of slavery?

### (b) Aesthetic value

Is it important in exhibiting particular aesthetic characteristics valued by a community or cultural group?

### (c) Scientific value

- Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage?
- Is it important in demonstrating a high degree of creative or technical achievement at a particular period?

**(d) Social value**

Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?

**(e) Rarity**

Does it possess uncommon, rare or endangered aspects of natural or cultural heritage?

**(f) Representivity**

- (i) Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects?
- (ii) What is the importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class?
- (iii) Is it important in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.

**(g) Sphere of Significance**

This category requires a broad, but detailed knowledge of the various disciplines that might be involved. Large sites, for example, may not be very important, but a small site, on the other hand, may have great significance as it is unique for the region. Such a region can transcend international boundaries.

**6.1 Methodology for Assessing Significance**

This category relates to the actual artefact or site in terms of its actual value as it is found today, and refers more specifically to the condition that the item is in. For example, an archaeological site may be the only one of its kind in the region, thus its regional significance is high, but there is heavy erosion of the greater part of the site, therefore its significance rating would be medium to low. Generally speaking the following are guidelines for the nature of the mitigation that must take place as Phase 2 of the project.

**Table 1:** Description of significant ratings

<b>High</b>
<p>This is a do not touch, leave entirely alone situation. Alternative areas or routes must be sought for the project, be it a pipeline, mine, power line, road, township development or any other form in which the proposed development may be. Examples would be natural and cultural landscapes like the Mapungubwe Cultural</p>



Landscape World Heritage Site, or the house in which Nelson Mandela grew up in.

Certain sites or features may be exceptionally important, but do not warrant leaving entirely alone. In such cases, detailed mapping of the site and all its features is imperative, as is the collection of diagnostic artefactual material on the surface of the site. Extensive excavations must be done to retrieve as much information as possible before destruction. Such excavations might cover more than half the site and would be mandatory.

In the above mentioned case study (2), it would also be advisable to negotiate with the client to see what mutual agreement in writing could be reached, whereby part of the site is left for future research.

### Medium

Sites of medium significance require detailed mapping of all the features and the collection of diagnostic artefactual material from the surface of the site. A series of test trenches and test pits should be excavated to retrieve basic information before destruction.

### Low

These sites require minimum or no mitigation. Minimum mitigation recommended could be a collection of all surface materials and/or detailed site mapping and documentation. No excavations would be considered to be necessary. Where no mitigation is required, then the site can be destroyed.

In all the above scenarios permits will be required from the National Heritage Resources Agency (SAHRA) as per the relevant law, namely the National Heritage Resources Act (Act 25 of 1999). Destruction of any heritage site may only take place when a permit has been issued by SAHRA or its provincial equivalent should this exist.

## 7 History of the area around the proposed site

The Later Stone Age is associated with the San and the knowledge of sites belonging to this period is limited in the area around Madibeng Local Municipality. However, Later Stone Age tools, rock engravings and rock painting have been documented in the Magaliesberg range (Wadley, 1998). The earliest evidence of Bantu-speaking farmers' in the region dates to between 350 to 600 AD. These sites are significant in that they provide among others the earliest solid evidence for the practice of lobola in South Africa (Huffman 2007). The Later Iron Age sites within the project area are chiefly associated with early Tswana people. The Tswana or western

Sotho are one of the three groups on which Sotho speaking people are grouped. The other two being southern Sotho (Basotho), and northern Sotho (Bapedi). The origin of the name Tswana is the subject of speculation, it has been interpreted as meaning “little offshoots”, “separatist”, and to “those who are alike” (Schapera 1962). When the first Tswana people arrived in the land we now call Botswana, they encountered the San (Sarwa), to whom it is not clear when did they enter southern Africa. However, Schapera (1952) further indicated that it was somewhere in the distant past, and at some point these people were generally populated across the southern Africa region. After been encountered, the San where either displaced and pushed to the desert were they are now found.

Although local variation in terms of dialect, social structure and other aspect of culture do occurs among the Tswana, they are a sufficient homogenous and can be classified as a single group (Schapera 1962). According to Schapera (1952) the Kgalagadi, who are believed to have originated somewhere in the vicinity of the Great-Lakes of East-Africa, were the first group of the Tswana to have encountered the San in Botswana. However, Breutz (1989) argued that since from oral tradition it is stated that they originated from the area were “the sun stood on the other side”, it means they lived north of the equator, which would probably be southern Sudan, and not Great Lakes, which is on the Equator.

The Rolong and Tlhaping group of the Tswana were the next to arrived, on arrival they absorbed the Kgalagadi and San people who were found in the area (Schapera 1652). The Tlhaping were referred to as Briqua (goat people) by the Khoi people, and they ate fish which is unusual among the Bantu-speaking people (Breutz 1989). Accordingly Breutz (1989) indicated that these groups arrived between 1200 and 1350, and at around 1350-1400 there was a large migration of another group called the Kwena-Hurutshe, this group settled in the Rustenburg and Brits area. Accordingly these migrations were without attack by tsetse fly, which made it difficult for the stock they had. Eventually, the last group entered South Africa at around fifteen or perhaps sixteenth century. They choose to settle east of Crocodile and Marico Rivers. Towards the end of the seventeenth century, a period of drought and famine made life difficult around the Rustenburg region. As such, a search of grazing and water pushed these groups into what is now Botswana.

The Magaliesberg range which is an area where most of the earliest evidence of Bantu-speaking farmers are located, was named after Mogale who was the Chief. In addition, the area was also occupied for a while by the Ndebele of Mzilikazi between 1823 and 1838. However, the capital of Mzilikazi was located on the northern side of the Magaliesberg range, and out of the boundaries of the Madibeng area (Carruthers 2007). The Madibeng area was also inhabited by the Voortrekker in the mid-1800, the Voortrekkers fought many battles against African communities including the Ndebele of Mzilikazi. By 1860, the Madibeng area was part and

parcel of the Boer Republic also known as the Zuid-Afrikaansche Republiek (ZAR). The Anglo-Boer War of 1899-1901 also reached the Madibeng area. In fact, the notorious Swartkop Commando frequented the area well into the final stages of war when commercial warfare was replaced by guerilla tactics (Carruthers 2007).

## 8 Findings

Although there was no archaeological material that was noted within the proposed area, an informal graveyard was noted, this graveyard is on the buffer zone. If not harnessed, it can be endangered by the proposed development. Conversely, it is important to note that, it is close to an informal road. Thus, the informal road, is about -60cm from the graves. If one considers that Meyers (2012) espoused that over time the original context of the burial will change, and as the body decomposes it will shift its position under the ground. It is possible that the informal road might be transverse on the content of the grave, though unintentional. The coordinates for the noted graves: S25°72969; E27°79085.

## 9 Recommendations

These graves appear to be over 60 years of age, as such, they have high archaeological value. In total they are seven, and they are all marked by stone cairns. Furthermore they are parallel and close to each other.

Key Recommendations:

- No stone robbing or removal of any material is allowed. Any disturbance or alteration on these sites (informal-graveyards) would be illegal and punishable by law, under section 36 (3) of the National Heritage Resources Act NHRA of 1999 (Act 25 of 1999).
- Maintain a reasonable buffer zone around the identified graves (approximately 20-25m). No dumping of construction material is allowed within this buffer zone and no alteration or damage on these sites may occur.
- The graves should be marked by a visible tape i.e., danger tape, for the duration of the project, and workers should be notified about this site.
- The informal road which is adjacent to the graves, and approximately 60cm from the edge of the cairns should be realigned and shifted further from these graves. There should be at-least a circumference of 20m between the graves and any road, existing or new.
- Note that it is the responsibility of the developer to notify contractors and workers that archaeological material (e.g. pottery, remains of stone-walling, graves, etc) and fossils are often located underground.
- Although no archaeological objects were observed on the footprint of the proposed area during survey, the client is reminded that these often occur underground, as such should any archaeological material

be unearthed accidentally during the course of construction, SAHRA should be alerted immediately and construction activities be halted.

## **10 Conclusion**

From an archaeological and cultural heritage resources perspective, we have no objections to the proposed project, as such we recommend South African Heritage Resource Agency (SAHRA) to approve the project to proceed with the suggested mitigation measure.

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