



**A PHASE I HERITAGE IMPACT ASSESSMENT STUDY FOR THE
PROPOSED DEVELOPMENT OF A CRUSHER PLANT ON PORTION
233 OF THE FARM KAFFERSKRAAL 342 JQ, RUSTENBURG LOCAL
MUNICIPALITY, NORTH-WEST PROVINCE**

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EXECUTIVE SUMMARY

A Phase I Heritage Impact Assessment (HIA) study as required in terms of Section 38 of the National Heritage Resources Act (Act No 25 of 1999) was done for Bobolele Consulting (Pty) Ltd for the development of the proposed Makwase Crusher Plant on Portion 233 of the farm Kafferskraal 342 JQ, Rustenburg Local Municipality, North West Province.

The aims with the Phase I HIA study were the following:

- To establish whether any of the types and ranges of heritage resources ('national estate') as outlined in Section 3 of the National Heritage Resources Act (Act No 25 of 1999) do occur in the project area and, if so, to determine the significance of these heritage resources.
- To make recommendations regarding the mitigation of significant heritage resources that may be affected by the proposed Makwase Crusher Plant.

One (1) grave site consisting of about five graves was identified in the process. Although the location of the project related infrastructure in terms of the proposed project is unlikely to materially affect or be affected by the identified grave site, it should be protected against either direct and negative or indirect impacts. The following is therefore recommended:

- a) that the site should be demarcated with danger tape for the duration of the construction phase and that a 10m buffer zone from the outer perimeter should be maintained.
- b) that once the construction phase of the development has been completed that the site should be properly fenced-in, with an entrance gate each, to provide ease of access for community members and descendants of the deceased.

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1. INTRODUCTION

This document contains the report on the results of a Phase I Heritage Impact Assessment (HIA) study that was done for Bobolele Consulting (Pty) Ltd for the development of the proposed Makwase Crusher Plant on Portion 233 of the farm Kafferskraal 342 JQ, Rustenburg Local Municipality, North West Province. The proposed project may have an influence on any of the types and ranges of heritage resources which are listed in Section 3 of the National Heritage Resources Act (Act No 25 of 1999) which may occur in the farm.

In order to comply with heritage legislation, the Applicant requires knowledge of the presence, relevance and the significance of any heritage resources that may be affected by the Project. The Applicant needs this knowledge in order to take pro-active measures with regard to any heritage resources that may be affected, damaged or destroyed when the Project is implemented. Consequently, Bobolele Consulting (Pty) Ltd who is responsible for compiling a Basic Assessment Report (BAR) for the project actioned Mandara Consulting to undertake a Phase I HIA study for the proposed Makwase Crusher Plant.

The aims with the Phase I HIA were the following:

- To establish whether any of the types and ranges of heritage resources ('national estate') as outlined in Section 3 of the National Heritage Resources Act (Act No 25 of 1999) do occur in the Project Area and, if so, to determine the significance of these heritage resources.
- To make recommendations regarding the mitigation of significant heritage resources that may be affected by the proposed Project.

Focused archaeological research has been conducted in the North West Province for several decades. This research consists of surveys and of excavations of Stone Age and Iron Age sites as well as of the recording of rock art and historical sites in this area. The North West Province has a rich heritage comprised of remains dating from the pre-historical and from the historical (or colonial) periods of South Africa. Pre-historical and historical remains in the North West Province of South Africa form a record of the heritage of most groups living in South Africa today.

Various types and ranges of heritage resources that qualify as part of South Africa's 'national estate' (as outlined in the National Heritage Resources Act [Act No 25 of 1999]) occur in the North West Province (see Box 1, underneath).

Box 1: Types and ranges of heritage resources (the national estate) as outlined in Section 3 of the National Heritage Resources Act, 1999 (No 25 of 1999).

The National Heritage Resources Act (Act No 25 of 1999, Art 3) outlines the following types and ranges of heritage resources that qualify as part of the National Estate, namely:

- (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 palaeontological 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 Tissues Act, 1983 (Act No 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including -
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological 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, photographs, positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No 43 of 1996).

The National Heritage Resources Act (Act No 25 of 1999, Art 3) also distinguishes nine criteria for places and objects to qualify as 'part of the national estate if they have cultural significance or other special value ...'. These criteria are the following:

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- (i) sites of significance relating to the history of slavery in South Africa.

2. PROJECT DESCRIPTION

2.1 Locality

The proposed project area is located on Portion 233 of the farm Kafferskraal 342 JQ within the Rustenburg Local Municipality and the Bojanala Platinum District Municipality of the North West Province. The site is situated north of the N4 Highway adjacent to the Buffelport / Marikana off-ramp, south of Tharisa Mine (Figure 1).

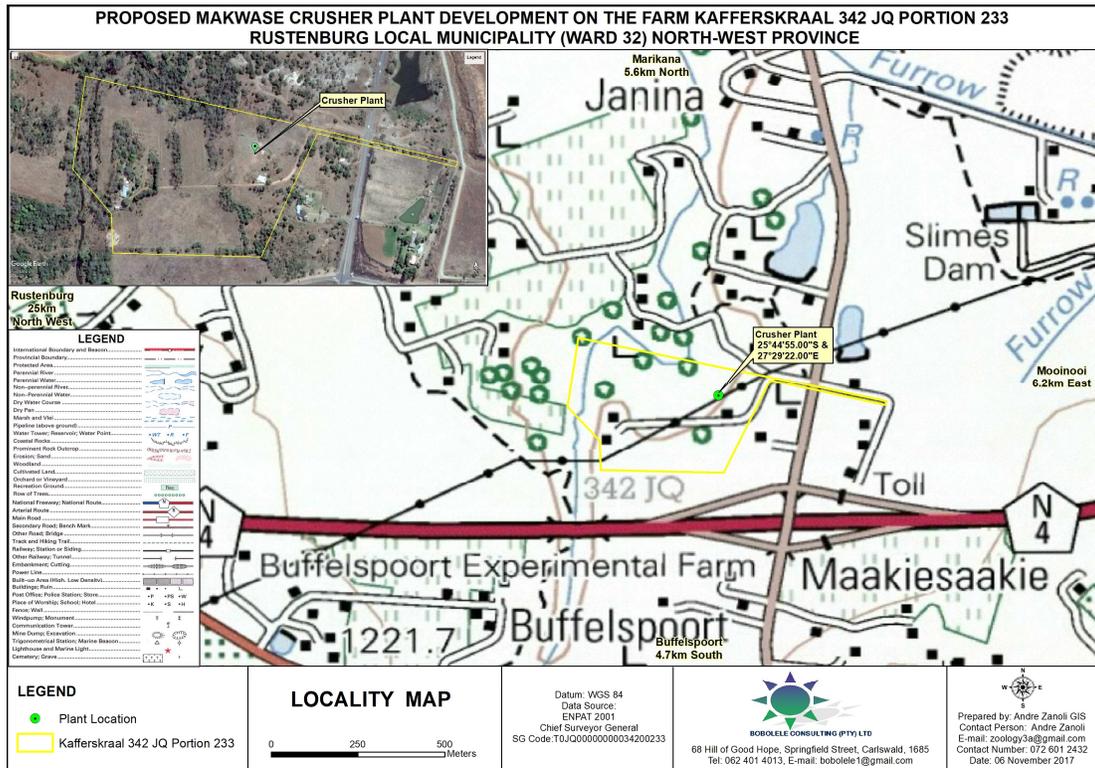


Figure 1: Project Area Locality map

2.2 The nature of the Project Area

The Project site lies on a relatively flat plain which gently slopes down towards the north. The area has an average elevation of approximately 1200 meters above mean sea level (mamsl), with elevation ranging from 1140m in the south-west to approximately 1320m in the north. The Magaliesberg mountain range that extends for about 130 km, from Pretoria to Rustenburg is approximately 10 km to the south of the farm.

The perennial Sterkstroom River run in a westerly direction through the farm. The land use in the area is a mixture of mining, farming, and low density residential activities.

2.3 The heritage potential of the Project Area

A number of heritage studies (SLR, 2014) have been done for other developers in close proximity of the farm which outline the nature and heritage character of the area. These studies also provide some predictive evidence regarding the types and ranges of heritage resources to be expected in any new area to be surveyed.

3. LEGAL FRAMEWORK

South Africa's heritage resources ('national estate') are protected by international, national and regional legislation which provides regulations, policies and guidelines for the protection, management, promotion and utilization of heritage resources. South Africa's 'national estate' includes a wide range of various types of heritage resources as outlined in Section 3 of the National Heritage Resources Act (NHRA, Act No 25 of 1999) (see Box 1).

According to the NHRA (Act No 25 of 1999) heritage resources are categorised using a three-tier system, namely Grade I (national), Grade II (provincial) and Grade III (local) heritage resources.

At the provincial level, heritage legislation is implemented by Provincial Heritage Resources Agencies (PHRAs) which apply the National Heritage Resources Act (Act 25 of 1999) together with provincial government guidelines and strategic frameworks. Metropolitan or Municipal (local) policy regarding the protection of cultural heritage resources is also linked to national acts and is implemented by the South African Heritage Resources Agency (SAHRA) and the Provincial Heritage Resources Agencies. At a national level heritage resources are dealt with by the National Heritage Council Act (Act No 11 of 1999) and the National Heritage Resources Act (Act No 25 of 1999).

3.1 Legislation relevant to heritage resources

The identification, evaluation and assessment of heritage resources in South Africa are regulated by the following legislation:

- National Environmental Management Act (NEMA) Act no 107 of 1998
- National Heritage Resources Act (NHRA) Act no 25 of 1999
- Minerals and Petroleum Resources Development Act (MPRDA) Act 28 no of 2002
- Development Facilitation Act (DFA) Act no 67 of 1995

3.2 The National Heritage Resources Act (NHRA)

According to the NHRA (Act No 25 of 1999) the 'national estate' comprises the following (see Box 1):

- a. Archaeological artefacts, structures and sites older than 100 years;
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography;
- c. Objects of decorative and visual arts;
- d. Military objects, structures and sites older than 75 years;
- e. Historical objects, structures and sites older than 60 years;
- f. Proclaimed heritage sites;
- g. Graveyards, burial grounds and graves older than 60 years;
- h. Meteorites and fossils; and
- i. Objects, structures and sites of scientific or technological value.

Elaborating on the above the 'national estate' also includes (Box 1):

1. Places, buildings, structures and equipment of cultural significance;
2. Places to which oral traditions are attached or which are associated with living heritage;
3. Historical settlements and townscapes;

4. Landscapes and features of cultural significance;
5. Geological sites of scientific or cultural importance;
6. Archaeological and paleontological sites of importance;
7. Sites of significance relating to the history of slavery; and
8. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military and ethnographic objects, books etc.).

3.3 Heritage Impact Assessment studies

According to Section 38 of the National Heritage Resources Act (Act no 25 of 1999) a Heritage Impact Assessment (HIA) process must be followed under the following circumstances:

- The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length.
- The construction of a bridge or similar structure exceeding 50m in length.
- Any development or activity that will change the character of a site and which exceeds 5 000m² or which involve three or more existing erven or subdivisions thereof.
- Re-zoning of a site exceeding 10 000 m².
- Any other category provided for in the regulations of SAHRA or a provincial heritage authority.

3.4 Regulations with regard to heritage resources

The regulations outlined below are applicable to the types and ranges of heritage resources which are the most common in the region where the heritage study was conducted, namely:

3.4.1 Buildings and structures

According to Section 34(1) of the NHRA (Act No 25 of 1999) no person may alter (demolish) any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

- A structure means any building, works, device or any other facility made by people and which is fixed to land and which includes fixtures, fittings and equipment associated with such structures.
- Alter means any action which affects the structure, appearance or physical properties of a place or object, whether by way of structural or any other works such as painting, plastering, decorating, etc.

3.4.2 Graves and burial grounds

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the NHRA (Act No 25 of 1999) no person, without a permit issued by the relevant heritage resources authority, may:

- a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b) destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Unidentified graves are handled as if they are older than 60 years until proven otherwise. Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the Ordinance on Excavations (Ordinance no. 12 of 1980) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the Human Tissues Act (Act 65 of 1983 as amended).

3.4.3 Archaeology, palaeontology and meteorites

Section 35(4) of the NHRA (Act No 25 of 1999) deals with archaeology, palaeontology and meteorites and states that no person without a permit issued by the responsible heritage resources authority (national or provincial) may:

- destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite
- destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite
- trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites
- alter or demolish any structure or part of a structure which is older than 60 years.

Heritage resources may only be disturbed or moved by an archaeologist after being issued with a permit received from the South African Heritage Resources Agency (SAHRA). In order to demolish heritage resources the developer has to acquire a destruction permit by from SAHRA.

4. BASELINE INFORMATION

4.1 The Central Bankeveld

The Project Area is located in the Central Bankeveld of the North West Province of South Africa. The Bankeveld is a narrow strip of land between the northern bushveld savannah and the centrally situated Highveld and can be divided into the Western Bankeveld, the Central Bankeveld and the Eastern Bankeveld. Only the Central Bankeveld with its numerous centuries-old remains of ancient Tswana spheres of influence is important to this report.

The Central Bankeveld is covered by older grabbo penetrated by younger volcanic magma which formed the series and chains of pyramid-shaped granite hills from the Pilanesberg in the north-west to Onderstepoort near Pretoria in the east. These hills, as part of the Magaliesberg valley, represent a unique ecozone characterised by grassveld, savannah veld and near wooded valleys. The region has abundant surface water supplies. The Pienaar, the Moretele, the Hex and the Apies Rivers all drain their waters into the Crocodile River (Horn, 1996).

4.2 Pre-historical context

Project Area is located to the north of the Magaliesberg which is known for its rich and diverse range of heritage resources (Carruthers 2000, De Beer 1975). Stone Age sites are scattered along the Magaliesberg and are also found in caves and rock shelters in the mountain. Rock engraving sites are located further towards Maanhaarrand and Rustenburg in the west. Blockhouses along the Magaliesberg and colonial farm homesteads are still common in Marikana and on the outskirts of Brits (Madibeng). The most abundant heritage, however, are those that date from the Late Iron Age and which are associated with the numerous Tswana chiefdoms who occupied this region during the last four centuries (Mason 1968).

The interaction between the climate, geology, topography, and the fauna and flora of the Central Bankeveld established a milieu in which the first Tswana found a suitable living environment in order to practise herding, agriculture, metal working and trading. It was here that their chiefdoms flourished during AD1600 to AD1840 (Horn 1996).

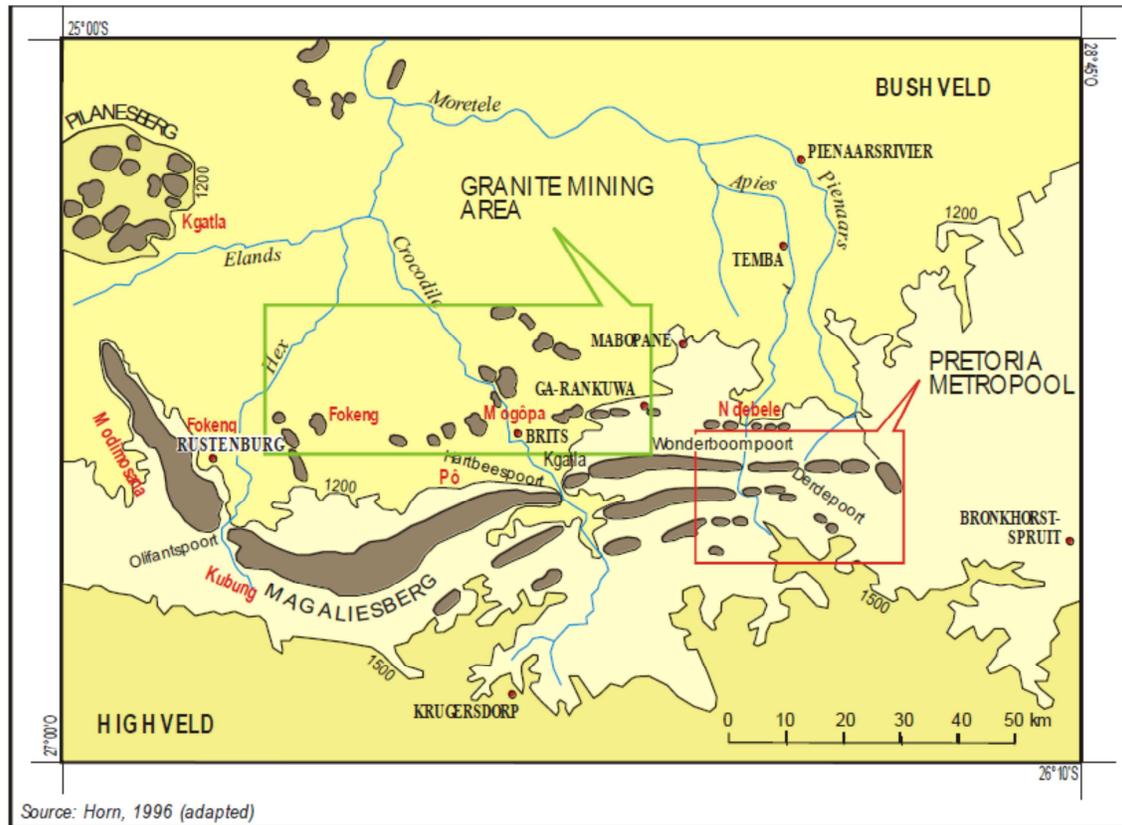


Figure 2 The Central Bankeveld is characterised by a conspicuous chain of granite hills which stretch between Pretoria and the Pilanesberg. Stone walled settlements occur along these hills and represent the spheres of influence of several Tswana chiefdoms which emerged in this fertile eco-zone during the last four centuries (adapted from Horn, 1996).

The settlements of these early Tswana chiefdoms are characterised by an impressive and elaborate stone-built tradition. Hundreds and perhaps thousands of sites were built along the bases of the granite hills. The most formidable of these chiefdoms close to Project Area were the Kwena M'ogopa and the Kwena M'ogale (Bapô) the latter whose spheres of influence overlapped with Project Area. Further to the west, closer to Rustenburg was the Fokeng chiefdom while several Kgatla spheres of influence emerged further to the west near Brits (Pistorius 2000). The Kgatla were subjected by Mzilikazi and were used as labourers to build one of the Ndebele's villages, probably known as emHlalandlela, which is located to the north-east of Project Area (Pistorius 1998).

The Bapô, a people whose earliest ancestors were descended from the Amambô Nguni from Kwa Zulu/Natal, arrived in the Magaliesberg during the 16th or 17th centuries. They established a sphere of influence close to Tharisa. One of their capitals was Tlhôgôkgôlô (Wolhuterskop). Several of the chiefs of this clan were known by the name of M'ogale. The name of the Magalies Mountains (Magaliesberg) was derived from the name M'ogale (Breutz 1953, 1986).

Numerous difaqane wars were fought during the last quarter of the 18th century and during the first quarter of the 19th century in the Central Bankeveld. These wars led to the displacement of large numbers of Tswana in the Bankeveld. The difaqane wars were caused by the Ndebele (Matabele) of

Mzilikazi who arrived from the Vaal River region to occupy the Bankeveld in August 1827. The Ndebele destroyed the Kwena Mōgōpa, the Kgatla and what had remained of the Bapō after an earlier defeat by the Pedi of Thulare. These wars exacerbated the havoc started earlier in the Bankeveld and gradually became a characteristic feature of historical events in this region during the early 19th century (Rasmussen 1978).

The Ndebele established several settlement complexes in the Central Bankeveld from whence they maintained their grip on the indigenous population. Four of these Zulu/Nguni residences (imisi) and military kraals (amakhanda) have been discovered during the course of earlier archaeological surveys (Pistorius 1997a, 1997b & 1998).

Internal strife between the various Tswana chiefdoms also seems to have been on the increase from the latter half of the 18th century onwards. Paternal relatives fought against each other to attain the chieftaincy of the various Tswana chiefdoms. Succession disputes also led to the splintering of the existing chiefdoms into a growing number of independent spheres of influence in the Bankeveld (Manson and Bhenga 2000).

During the early 19th century travellers, traders and missionaries visited the Central Bankeveld where they encountered the devastated Tswana chiefdoms. They also mentioned that numerous Tswana tribes were displaced. These travellers included the traders Robert Schoon and William McLuckie in August 1829. They were soon followed by the missionary Robert Moffat who visited Mzilikazi in an umuzi near what is today Pretoria. In June 1835 Charles Bell and other members of Andrew Smith's expedition visited a Ndebele village near Rustenburg which Bell subsequently painted (Lye (ed.) 1975). One year later, in December 1836, Cornwallis Harris also visited the Central Bankeveld where he painted the village of emHlalandlela (Harris 1963).

The Bankeveld was rich in fauna which attracted the Griqua and the first white hunters to the region. Ivory was plentiful, with herds of elephants roaming the area. Ivory and the skins of the wide variety of fauna were sought after as precious trade commodities. Although the Tswana hunted the fauna of the Bankeveld, they were more renowned as agriculturists and cattle herders than as hunters.

Complex causes led to the unfolding of the numerous Tswana chiefdoms and their spheres of influence throughout the Bankeveld during the last decades of the 18th century and during the first decades of the 19th century. These causes were multidimensional and included the ecological potential of the region, the social and political formation and expansion of different spheres of influence, the establishment of short and long distance trade relations and local and regional wars. These causes and historical events were complex and are not fully recorded in oral traditions or in any other records.

4.3 Historical context

Some of the earliest Voortrekkers who moved across the Magaliesberg in the early 19th century established themselves on the farms Kafferskraal and Witpensfontein (today Rustenburg) and Schaapkraal, to the west and north of the study area. Since the second half of the 19th century,

farmers and workers have occupied the Rustenburg District (including the Moinooi, Marikana, Hartebeespoort and Brits areas). Tobacco and citrus farming, together with cattle herding, became a subsistence pattern that has lasted to this day. Old farm homesteads, agricultural implements and other infrastructure such as tobacco drying sheds may still exist on farms adjacent to the study area (Bergh 1992).

During the Second/Anglo Transvaal Boer War (1899-1902) British blockhouses were built along the ridge of the Magaliesburg, from Pretoria in the east to Rustenburg in the west. Several of these structures are located in Kommandonek and in Pampoennek in the Magaliesberg, to the south of Project Area (Carruthers, 2000).

4.4 Mining

After the discovery of the Merensky Reef in 1929, the economy of the area was gradually changed from farming into platinum and chrome mining. What started as small scale mining activities north of the Magaliesberg during the 20th century was soon eclipsed by the rise of the platinum mining complex near Rustenburg. The discovery of the Merensky Reef and the accompanying platinum boom was soon followed by the establishment of numerous chrome and norite mines in the North-West Province.

5. STUDY APPROACH AND METHODOLOGY

4.1 Field survey

Field assessment was undertaken on the 5th September 2017. The timing of field survey coincided with early spring season whereby vegetation cover is still sparse on the farm.

4.2 Databases, literature survey and maps

Literature relating to the pre-historical and the historical unfolding of the Bankeveld was reviewed. This review focused primarily on the pre-history as well as the Historical Period of the central part of the Bankeveld. The literature research contextualises the pre-historical and historical background of the Central Bankeveld which again contributes to a better understanding of the identity and meaning of heritage sites which occur in and near the farm.

4.3 Documentation

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

4.4 Some remarks on terminology

Terms that may be used in this report are briefly outlined below:

- **Conservation:** The act of maintaining all or part of a resource (whether renewable or non-renewable) in its present condition in order to provide for its continued or future use. Conservation includes sustainable use, protection, maintenance, rehabilitation, restoration and enhancement of the natural and cultural environment.
- **Cultural resource management:** A process that consists of a range of interventions and provides a framework for informed and value-based decision-making. It integrates professional, technical and administrative functions and interventions that impact on cultural resources. Activities include planning, policy development, monitoring and assessment, auditing, implementation, maintenance, communication, and many others. All these activities are (or will be) based on sound research.
- **Cultural resources:** A broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. Cultural resources include traditional systems of cultural practice, belief or social interaction. They can be, but are not necessarily identified with defined locations.
- **Heritage resources:** The various natural and cultural assets that collectively form the heritage. These assets are also known as cultural and natural resources. Heritage resources (cultural resources) include all human-made phenomena and intangible products that are

the result of the human mind. Natural, technological or industrial features may also be part of heritage resources, as places that have made an outstanding contribution to the cultures, traditions and lifestyles of the people or groups of people of South Africa.

- In-Situ Conservation: The conservation and maintenance of ecosystems, natural habitats and cultural resources in their natural and original surroundings.
- Iron Age: Refers to the last two millennia and 'Early Iron Age' to the first thousand years AD. 'Late Iron Age' refers to the period between the 16th century and the 19th century and can therefore include the Historical Period.
- Maintenance: Keeping something in good health or repair.
- Pre-historical: Refers to the time before any historical documents were written or any written language developed in a particular area or region of the world. The historical period and historical remains refer, for the Project Area, to the first appearance or use of 'modern' Western writing brought to the Eastern Highveld by the first Colonists who settled here from the 1840's onwards.
- Preservation: Conservation activities that consolidate and maintain the existing form, material and integrity of a cultural resource.
- Recent past: Refers to the 20th century. Remains from this period are not necessarily older than sixty years and therefore may not qualify as archaeological or historical remains. Some of these remains, however, may be close to sixty years of age and may, in the near future, qualify as heritage resources.
- Protected area: A geographically defined area designated and managed to achieve specific conservation objectives. Protected areas are dedicated primarily to the protection and enjoyment of natural or cultural heritage, to the maintenance of biodiversity, and to the maintenance of life-support systems. Various types of protected areas occur in South Africa.
- Reconstruction: Re-erecting a structure on its original site using original components.
- Replication: The act or process of reproducing by new construction the exact form and detail of a vanished building, structure, object, or a part thereof, as it appeared at a specific period.
- Restoration: Returning the existing fabric of a place to a known earlier state by removing additions or by reassembling existing components.
- Stone Age: Refers to the prehistoric past, although Late Stone Age peoples lived in South Africa well into the Historical Period. The Stone Age is divided into an Earlier Stone Age (3 million years to 150 000 thousand years ago) the Middle Stone Age (150 000 years to 40 000 years ago) and the Late Stone Age (40 000 years to 200 years ago).

- Sustainability: The ability of an activity to continue indefinitely, at current and projected levels, without depleting social, financial, physical and other resources required to produce the expected benefits.
- Translocation: Dismantling a structure and re-erecting it on a new site using original components.
- Project Area: refers to the area (footprint) where the developer wants to focus its development.
- Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types and ranges of heritage resources in any given Project Area (excluding paleontological remains as these studies are done by registered and accredited palaeontologists).
- Phase II studies include in-depth cultural heritage studies such as archaeological mapping, excavating and sometimes laboratory work. Phase II work may include the documenting of rock art, engraving or historical sites and dwellings; the sampling of archaeological sites or shipwrecks; extended excavations of archaeological sites; the exhumation of human remains and the relocation of graveyards, etc. Phase II work involve permitting processes, require the input of different specialists and the co-operation and approval of SAHRA.

6. THE PHASE I HERITAGE SURVEY

6.1 The field survey

One (1) grave site consisting of about five graves was identified during the field survey.

GPS Coordinate: 25°44'53"S 27°29'22"E

The location of the grave site in relation to the crusher plant is illustrated in Figure 3 below.

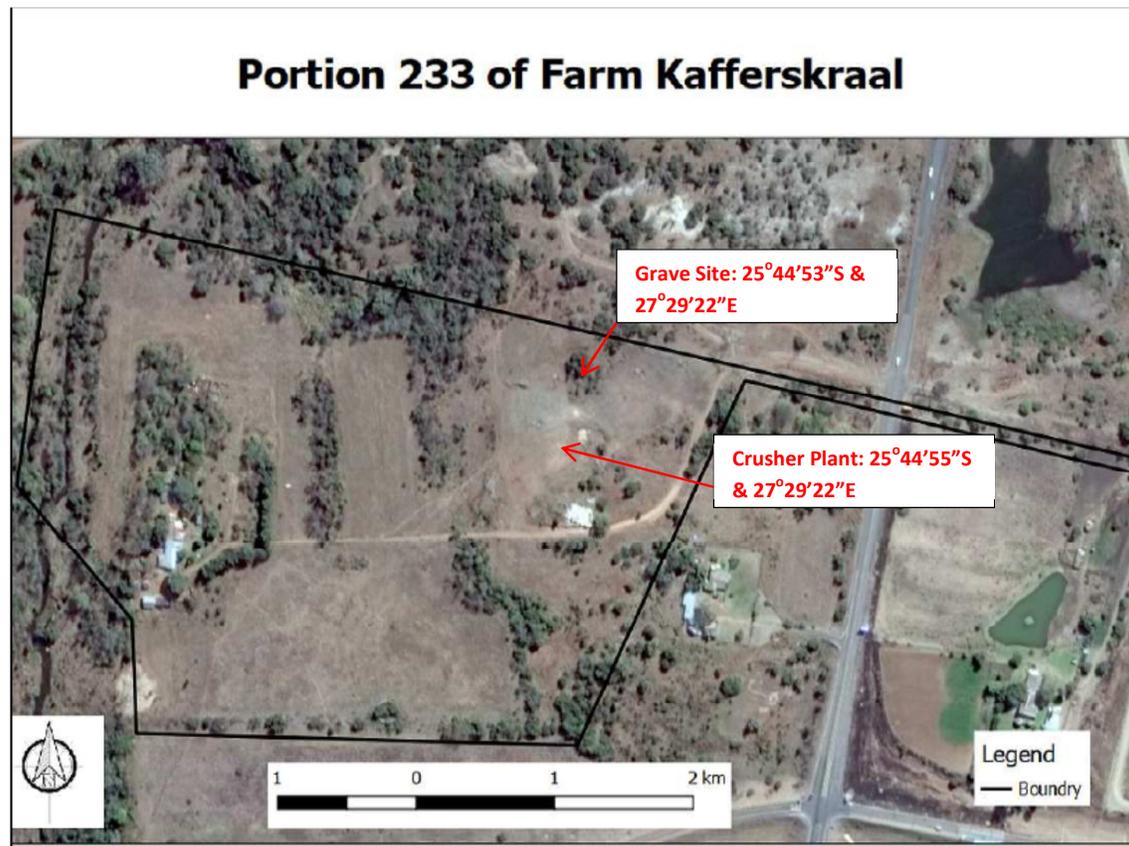


Figure 3: Location of grave site on the farm.

The grave site is an informal cemetery containing about five stone packed graves, situated under a large tree (see plate 1 and 2 below). The age of the graves could not be determined as they are not marked and landowners did not know.



Plate 1: Grave located under a tree



Plate 2: Grave located under a tree

No other heritage resources were identified on site during the field survey.

7. CONCLUSION AND RECOMMENDATION

In conclusion it is possible to say that the assessment of the grave site identified during the field survey was conducted successfully. The aim with this assessment was also to provide a Guidelines Document on the protection of the site during the construction phase of the development, as well as the long-term management of the site that will be impacted on by the development.

Although the location of the project related infrastructure in terms of the proposed project is unlikely to materially affect or be affected by the identified grave site, it should be protected against either direct and negative or indirect impacts. The following is therefore recommended:

- a) that the site should be demarcated with danger tape for the duration of the construction phase and that a 10m buffer zone from the outer perimeter should be maintained.
- b) that once the construction phase of the development has been completed that the site should be properly fenced-in, with an entrance gate each, to provide ease of access for community members and descendants of the deceased.

As with any survey, archaeological materials lie sub-surface and may be therefore unidentifiable to the surveyor until unearthed during the development process. It is important for the developer to note that should any archaeological site be found within a stratigraphic context/subsurface during construction, SAHRA/Northwest Provincial Heritage Authority must be notified immediately. **Finally it should be noted that there is always a possibility that individual graves or sites could have been missed during the field survey. This would be the result of dense vegetation in areas, as well as the fact that some graves might be unmarked or only marked with low packed cairns or single stones as markers. If any graves are therefore uncovered during the development then these should be reported to a heritage specialist to investigate.**

REFERENCE

- Bergh, J.S. 1992. Die vestiging van die Voortrekkers noord van die Vaalrivier tot 1840. *Historia*, 37(2); 38-42.
- Breutz, P.L. 1953. *The tribes of Rustenburg and the Pilanesberg districts*. Pretoria: Government Printer.
- Breutz, P.L. 1986. *A History of the Batswana and Origin of Bophuthatswana*. Thumbprint: Margate.
- Carruthers, V.C. 2000. *The Magaliesberg*. Pretoria: Protea Book House
- De Beer, B.K. 1975. *Agter die Magalies*. Fontainebleau: Postma Publikasies
- Harris, C. 1963. *The wild sports of Southern Africa*. London:John Murray.
- Horn, A.C. 1996. Okkupasie van die Bankeveld voor 1840 n.C.: 'n sintese. *Suid Afrikaanse Tydskrif vir Etnologie*. 19(1), 17-27.
- Lye, W.F. (ed.) 1975. *Andrew Smith's journal of his expedition into the interior of South Africa, 1834-1836*. Cape Town: Balkema.
- Mason, R.J. 1968. Iron Age settlement in the Transvaal and Natal revealed by aerial photography and excavation. *African Studies*, 27(4)
- Pistorius, J.C.C. 1998. EmHlalandlela, a Matabele settlement in the Bankeveld. *South African Journal of Ethnology*. 21(2), 55-65.
- Pistorius, J.C.C. 2000. A Phase I archaeological survey of portions of the farm Middelkraal 466JQ in the Central Bankeveld for Western Platinum Mine's proposed tailings dam. Unpublished report prepared for C. van der Westhuizen (Private geo-hydrologist) and for Western Platinum Mine.
- Pistorius, J.C.C. 1997a. The Matabele village which eluded History, Part I. *South African Journal of Ethnology*. 20(1), 26-38.
- Pistorius, J.C.C. 1997b. The Matabele village which eluded History, Part II. *South African Journal of Ethnology*. 20(2), 43-55.
- SLR. 2014. Environmental impact assessment and management programme report for changes to the pit, tailings dam and waste rock facilities; a chrome sand drying plant and other operational and surface infrastructure changes. 1-69, 6-1