

TO:
THE NETWORK SERVICES MANAGER
ESKOM, RUSTENBURG

A CULTURAL HERITAGE ASSESSMENT FOR ESKOM'S
PROPOSED POWER SUPPLY FOR THE ANGLO
PLATINUM WESTERN LIMB TAILINGS RETREATMENT
PROJECT BETWEEN THE BIGHORN POWER STATION
AND THE TURF SHAFT SUBSTATION IN THE
RUSTENBURG DISTRICT OF THE NORTH-WEST

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ADDENDUM D
PHASE 1 HERITAGE IMPACT ASSESSMENT

EXECUTIVE SUMMARY

The Eskom study area is located in the Rustenburg District of the North-West Province of South Africa. Three critical areas (corridors) relevant to Anglo Platinum's Western Limb Tailings Retreatment Project, namely the CCT Option, the Karee Option and the proposed new Deviation with a T-junction were subjected to a heritage impact assessment (Figures 1-5). The ranges of heritage resources discovered in the Karee Option and along the Deviation and T-junction were Late Iron Age sites and features (LIA01 to LIA11 and EO1), a village (RRP01) and a cemetery (GY01) dating from the relatively recent past. These heritage resources have been tabulated and mapped. The coordinates for the heritage resources are indicated (Table 1, Figure 5).

Some of the heritage resources have already been affected (damaged) by various development activities in the past (Site LIA01, Site LIA03, Site LIA04, Site LIA06 and Site LIA07). A cemetery (GY01) and part of a village (RRP01) dating from the relatively recent past are located under the existing Karee power line.

The majority of the heritage resources are located in or near the Deviation and T-junction corridor. Some of the resources are located outside the proposed new power line corridor and will not be affected by the building of the proposed new 88kV power line (Site LIA02, Site LIA05, Site LIA08 [destroyed], Site LIA09, Site LIA10). Heritage resources located close to the proposed new power line corridor that may be affected when the proposed new 88kV power line is built are Site LIA01, Site LIA03, Site LIA04, Site LIA06 and Site LIA07.

Eskom's development does not need to damage the sites when the proposed new power line is built if the pylons (that support the power line) are spaced to stand outside the perimeters (borders) of these sites. However, if Eskom intends to erect the pylons in any one of these sites, Eskom has to obtain a permit from the South African Heritage Resources Agency (SAHRA) before the development can proceed.

The cemetery (GY01) located under the Karee power line must be fenced in as a precautionary measure if Eskom decides to use the Karee Option. This will ensure that the graves are not damaged during the construction period. The fence can be removed after the power line has been built as it is likely to be stolen later. The village dating from the relatively recent past (RRP01) is not considered to be of outstanding historical importance.

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1 INTRODUCTION

This document contains the report on the results of a cultural heritage impact assessment study done for Eskom in the Bankeveld in the Rustenburg District of the North-West Province of South Africa. The Bankeveld is located, ecologically speaking, between the Bushveld (to the north) and the Highveld (to the south). The Bankeveld has a rich archaeological heritage comprised of remains dating from the prehistoric and the historical (or colonial) periods of South Africa. Prehistoric and historical remains in the Bankeveld form a record of the cultural heritage of most groups living in South Africa today. These remains include:

- limestone caves and underground dwelling sites of the earliest hominids (ape-man creatures) who lived near Krugersdorp in South Africa 2 to 3 million years ago;
- Stone Age sites that may be associated with the San people and which date back hundreds of thousands of years;
- rock engraving sites located near diabase outcrops and dating from the last 20 000 years;
- rock painting sites in the Magaliesberg and in the Pilanesberg which date from the last 10 000 years;
- Early Iron Age sites occupied by the first Bantu-Negroid agriculturists and possibly cattle herders which date back 1 500 years;
- Late Iron Age sites dating from the last 500 years;
- remains dating from the previous century when the first immigrant Boers settled in various places to the north, the south and to the west of the Magaliesberg from the 1840's onwards;
- blockhouses built by British troops during the Anglo-Boer War (1899-1900) on the Magaliesberg and other mountain ranges;
- graves and graveyard sites dating from historic and prehistoric times; and

- numerous other formal historical features (the Voortrekker Monument, the Willem Prinsloo agricultural museum, the Pioneers' Open Air Museum, Melrose House, the Sammy Marks Museum, the Paul Kruger house museum in Pretoria and Paul Kruger's farm Boekenhoutfontein to the north of Rustenburg, the Rustenburg and Zeerust museums, etc).

2 CULTURAL HERITAGE REMAINS AND LEGISLATION

Eskom's study area is situated in the archaeologically sensitive Bankeveld. All settlements older than hundred years and all structures or parts of structures older than sixty years located in this region are protected by legislation. A synopsis of the relevant legislation is provided below. It must serve as a guideline to be considered before any development project is undertaken.

2.1 The Environment Conservation Act (Act No 73 of 1989)

The Environment Conservation Act (Act No 73 of 1989) makes provision for the drawing up of reports concerning the impact on the environment of activities identified and prohibited in terms of Sections 21 and 22 respectively. These reports must evaluate the impact that development may have on the natural and man-made environment, and this includes archaeological sites.

Local and regional authorities (Town Councils, Regional Governments and Regional Services Councils) also have regulations requiring evaluation of the possible effects that rezoning and development schemes may have on the environment, including the cultural environment. These regulations must be studied to ensure that they are implemented correctly.

2.2 The Minerals Act (Act No 50 of 1991)

The Minerals Act (Act No 50 of 1991) and the Minerals Amendment Act (Act No 103 of 1993) require plans for the conservation of the environment at or in the vicinity of any mine or works to be detailed in an environmental management programme (EMP). The EMP must indicate how the natural and the 'man-made' environment will be protected and rehabilitated during and after the mining.

2.3 The National Heritage Resources Act (Act No 25 of 1999)

The National Heritage Resources Act (Act No 25 of 1999) requires all developers (including engineers, farmers [agriculturists] and mines, previously excluded from the bill) to undertake impact assessment studies whenever any development activities are undertaken. The law also provides guidelines for impact assessment studies to be done whenever cultural resources may be destroyed by development activities. Permits must be acquired from the South African Heritage Resources Agency (SAHRA) before a heritage site can be affected or destroyed during the course of development activities.

Archaeological impact assessment studies have therefore become a common procedure for all development activities, even if such development may be exempted in terms of the Environment Conservation Act.

The new law stipulates the types of remains which qualify as cultural resources (heritage). These cultural resources are classified into national, provincial and other cultural heritage resources. The law stipulates general principles for heritage resources management and involves all three levels of government in the management of the country's cultural heritage. The law also requires community participation in the protection of living heritage resources.

SAHRA establishes and maintains a national policy, strategy plans and standards for heritage resources management and monitors the system as a whole. Heritage authorities assist and co-operate with individuals and organisations concerned with the study, the conservation and the promotion and utilisation of national heritage resources. A newly established National Heritage Resources Fund provides financial assistance for heritage projects.

2.4 Legislation relevant to graves, the exhumation and relocation of human remains

Different legislation applies to different categories of graves, namely:

2.4.1 Graves younger than 60 years

Graves younger than 60 years are protected by Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983). These graves fall under the jurisdiction of the National Department of Health and the relevant Provincial Department of Health. Approval for the removal of graves and bodies must be directed to the Office of the relevant Provincial Minister. (This function is usually delegated to the Provincial MEC for Local Government and Planning, or, in some cases, the MEC for Housing and Welfare). Authorisation for exhumation and re-interment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must be adhered to. In order to handle and transport human remains, the institution conducting the relocation must have authorisation under Section 24 of Act 65 of 1983 (the Human Tissues Act).

2.4.2 Graves older than 60 years

Graves older than 60 years but younger than 100 years fall under Section 36 of Act 25 of 1999 (the National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and under the jurisdiction of the South African Heritage Resources Agency (SAHRA). The Procedure for Consultation Regarding Burial Grounds and Graves (Section 36[5] of Act 25 of 1999, National Heritage Resources Act) is applicable to graves older than 60 years which are situated outside a formal cemetery administered by a local authority. Graves in this category located inside a formal cemetery administered by a local authority also require the same authorisation as set out for graves younger than 60 years, over and above SAHRA authorisation. If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authorities must be adhered to. In order to handle and to transport human remains, the institution conducting the relocation needs authorisation under Section 24 of Act 65 of 1983 (the Human Tissues Act). Any alteration to a grave in this category or the relocation thereof must be supervised by an archaeologist accredited by SAHRA and the Cultural Resource Management Section of the South African Association for Archaeologists.

2.4.3 Graves older than 100 years

All graves older than 100 years are legislated as being archaeological and therefore protected under Act 25 of 1999 (the National Heritage Resources Act). SAHRA authorisation is required for all graves in this category, regardless of where they are located. Any alteration to a grave in this category or the relocation thereof must be supervised by an archaeologist accredited by SAHRA and the Cultural Resources Management Section of the South African Association of Archaeologists. If the grave is situated in a cemetery administered by a local authority, the authorisation as set out for graves younger than 60 years are also applicable, over and above SAHRA authorisation. At the discretion of SAHRA, the Procedure for Consulting Regarding Burial Grounds and Graves (Section 36[5] of the National Heritage Resources Act) might also be required. In order to handle and transport human remains, the institution conducting the relocation must have authorisation under Section 24 of Act 65 of 1983 (the Human Tissues Act).

2.4.4 Graves of victims of conflict

All graves of victims of conflict, regardless of how old they are or where they are situated, are protected by Act 25 of 1999 (the National Heritage Resources Act). SAHRA authorisation is required for all graves in this category. Any alteration to a grave in this category or the relocation thereof must be supervised by an archaeologist accredited by SAHRA and the Cultural Resources Management Section of the South African Association for Archaeologists. If the grave is situated in a cemetery administered by a local authority, the authorisation as set out for graves younger than 60 years is also applicable, over and above SAHRA regulations. On the discretion of SAHRA, the Procedure for Consulting Regarding Burial Grounds and Graves (Section 36[5] of the Act 25 of 1999, National Heritage Resources Act) might also be required. In order to handle and transport human remains, the institution conducting the relocation must have authorisation under Section 24 of Act 65 of 1983 (the Human Tissues Act).

3 AIM OF THIS REPORT

Anglo Platinum has requested Eskom to establish a power supply between the Big Horn Power Station on the farm Rooikoppies 297JQ near Marikana (in the east) and the Turf Shaft Substation on the farm Turffontein 302JQ (in the west). The Anglo Platinum Western Limb Tailings Retreatment Project requires that Eskom has to establish a 88kV power line between the Big Horn Power Station and the Turf Shaft Substation. This new power line will follow one of two options incorporating a Deviation and T-junction, namely the CCT Option or the Karee Option. The project also requires Eskom to build a new substation (the Western Limb Substation) along the proposed new deviation (Figure 1).

In order to comply with legislation, Eskom requires knowledge of the presence, relevance and the significance of any heritage resources that may occur in or near the critical areas (power line corridors, see Terminology, Part 4.4) where Eskom intends to undertake these developments. Eskom needs this information in order to take pro-active measures with regard to any heritage remains that may be affected, damaged or destroyed by the proposed new development project. Eskom therefore commissioned me to undertake a heritage impact assessment study of the critical areas (corridors) to be affected by the proposed development. The aim of the heritage impact assessment study is:

- to establish whether any heritage resources do occur in or near the critical areas (corridors) and, if so, what the nature, the extent and the significance of these remains are;
- to determine whether such remains will be affected by the proposed development activities; and
- to evaluate what appropriate actions could be taken to reduce the impact of the development activities on such remains.

4 METHODOLOGY

4.1 A survey on foot

Three main critical areas (corridors) in the Eskom power supply for the Anglo Platinum Western Limb Tailings Retreatment Project are relevant with regard to this cultural heritage impact assessment study. These three corridors were divided into different stretches (or parts) that were subjected to a survey on foot. These stretches of power lines are outlined and discussed in detail in Part 6 of this report.

4.2 Databases and literature survey

Information derived from databases kept and maintained at institutions such as the South African Heritage Resources Agency (SAHRA) and the National Cultural History Museum in Pretoria were used to determine whether any heritage remains have been identified in or near the critical areas (corridors).

A survey of literature relating to the cultural and historical context of the study area was also undertaken in order to establish whether any heritage remains of significance occur in or near the study area (see Part 5.3).

The author of this report also has completed several impact assessment studies in the Rustenburg District and is therefore not totally unacquainted with the region in which the development is planned. Several impact assessment studies have been done close to where this study has been conducted (see Bibliography, Part 11).

4.3 Assumptions and limitations

It must be kept in mind that cultural heritage surveys may not detect all heritage resources in any given study area. While certain remains may simply be missed during surveys (observations), others may occur below the surface of the earth and may only be exposed once development (such as the digging of holes for pylons) commences.

4.4 Some remarks on terminology

The cultural heritage assessment referred to in the title of this report includes a survey of heritage resources as outlined in the National Heritage Resources Act (Act No 25 of 1999).

Cultural heritage (or cultural resources) includes 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.

The term 'pre-historic' generally 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 Rustenburg area, to the first appearance or use of 'modern' Western writing brought to Rustenburg by the first Colonists who settled in this area c. 1840. The historical period for the Rustenburg area therefore dates from c. 1840.

The term 'relatively 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.

It is not always possible, based on observations alone, to distinguish clearly between archaeological remains and historical remains, or between historical remains and remains from the relatively recent past. Although certain criteria may help to make this distinction possible, these criteria are not always present, or, when they are present, they are not always clear enough to interpret with great accuracy. Criteria such as square floor plans (a historical feature) may serve as a guideline. However, circular and square floors may occur together on the same site.

The term 'sensitive remains' is sometimes used to distinguish graves and cemeteries as well as ideologically significant features such as holy mountains, initiation sites or other sacred places. Graves in particular are not necessarily heritage resources if they date from the recent past and do not have tombstones that are older than sixty years.

The term 'Stone Age' refers to the prehistoric past, although Late Stone Age peoples lived in the area 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).

The term 'Late Iron Age' refers to the period between the 17th century and the 19th century and can therefore include the historical period.

The term 'study area' or 'project area' refers to the area where Eskom wants to focus its development activities.

The 'critical areas' refer to the areas (or corridors) that will be affected by Eskom's proposed development project.

The 'peripheral area' refers to the area where Eskom does not intend to focus its development activities, but which are in close proximity to the critical areas (or corridors).

Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types of heritage resources in any given area.

Phase II studies include in-depth cultural heritage studies such as archaeological mapping and excavating work, the documenting of rock art sites, engraving sites or historical dwellings and other architectural features and structures, the sampling of archaeological sites or shipwrecks, etc. Phase II work requires the co-operation and approval of SAHRA.

5 THE STUDY AREA

5.1 Location

The Eskom study area is located east of Rustenburg and west of Marikana on the farms Turffontein 302JQ, Klipfontein 300JQ, Brakspruit 299JQ, Hoedspruit 298JQ, Middelkraal 466JQ and Rooikoppies 297JQ (see the 1:50 000 topographical maps of Rustenburg East [2527CB]) and Wolhuterskop [2527DA]. The Eskom power supply for the Anglo Platinum Western Limb Tailings Retreatment Project is located in the Rustenburg District of the North-West Province. The study area overlaps with the Bushveld Igneous Complex which includes the Merensky Reef and its Platinum Group of Metals (PGM's). The three critical areas (corridors) relevant to Anglo Platinum's Western Limb Tailings Retreatment Project, namely the CCT Option, the Karee-Option and the proposed new Deviation with a T-junction, are indicated in Figure 1.

Whilst the eastern part of the study area is located on a level stretch of turf veld, the western end of the study area incorporates the southern tip of a series of granite hills. These hills were historically known as the Thaba-ee-Maralla range of mountains and they are associated with hundreds of settlements dating from the Iron Age and the historical period. These sites are associated with the predecessors of the Tswana people, including clans such as the Fokeng, Kwena Mogale and Kwena Mógopa.

5.2 The developed and disturbed nature of the study area

Eskom's study area is not a pristine piece of land any longer. Both the eastern and the western parts of the study area are characterised by a wide range of past development activities.

The eastern part of the study area, including the farms Middelkraal and Rooikoppies, is characterised by infrastructure such as residential houses on erven or plots, roads, agricultural fields, a school building, a soccer field, newly established shacks, etc. The central part of Zwartkoppies, Rooikoppies and Brakfontein has largely been turned into agricultural fields onto which mining infrastructure has been superimposed in more recent times. The Thaba-ee-Maralla range of mountains in the west runs from north to south across the farms Klipfontein and Turffontein.

Developments in the study area include both new and old abandoned mining infrastructure such as buildings, towers rising above shafts, ventilation shafts, roads, etc. Other developments include:

- freshly ploughed fields;
- large pieces of disturbed land (e.g. a soccer field);
- primary (tar) and secondary (dirt) roads;
- railroad lines with service roads; and
- numerous overhead lines such as telephone and power lines.

5.3 The historical context of the study area

The study area is situated to the south and to the west of the prominent chain and series of granite hills which are marked, from an archaeological point of view, by large numbers of stone walled settlements dating from the Late Iron Age. The majority of these sites are located along the bases of the granite hills, although some also occur on level areas between the kopjes.

The eastern part of the Eskom study area is nearly totally devoid of any granite kopjes or other protrusions that could have provided building material for Late Iron Age villages. However, other remains such as villages and homesteads dating from the historical period or from the relatively recent past may have been located in this area. Large numbers of squatter dwellings have also been built in this part of the study area in more recent times.

No rock paintings or rock engravings dating from the Stone Age are known to exist in the immediate surroundings of the study area. However, rock engravings have been found in the Maanhaarand and Buffelspoort areas, closer to the Magaliesburg and further to the south of the study area. A very small number of stone tools dating from the Stone Age have been observed between the granite kopjes located to the north and in the western part of the study area. It would appear as if the Bankeveld, between Rustenburg and Marikana, was not occupied on a large scale by Stone Age peoples.

Late Iron Age communities, predecessors of the historically known Tswana people, occupied the Thaba-ee-Maralla range of mountains in the western part of the study area from the 17th to the 19th centuries. The remains of their

villages, consisting of stone walls and enclosures, cover the base and in places the higher slopes of the mountain.

Some of the earliest Voortrekkers who moved across the Magaliesberg in the early 19th century established themselves on the farm Schaapkraal, slightly to the north of the study area. Since the second half of the 19th century, farmers and workers have occupied the Mooinooi and Marikana 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 still exist on farms adjacent to the study area.

Small-scale mining activities to the north of the Magaliesberg during the 1920's 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 followed by the establishment of numerous platinum and chrome mines in the study area close to Eskom's new proposed development.

