

**Prepared for:**

**JONES AND WAGENER CONSULTING**

**CIVIL ENGINEERS (PTY) LTD**

**KUYASA MINING**

**A PHASE I HERITAGE IMPACT ASSESSMENT (HIA) STUDY FOR A  
PROPOSED 600MW POWER PLANT AND ASSOCIATED  
INFRASTRUCTURE FOR KIPOWER (PTY) LTD NEAR DELMAS ON  
THE EASTERN HIGHVELD IN THE MPUMALANGA PROVINCE OF  
SOUTH AFRICA**

**Prepared by:**

**Dr Julius CC Pistorius**

**Archaeologist and Heritage Consultant**

**Member ASAPA**

**352 Rosemary Street Lynnwood 0081**

**PO Box 1255 BelaBela 0480**

**Tel and fax (014)7362115**

**Cell 0825545449**

**July 2012**

## EXECUTIVE SUMMARY

This document contains the report on a Phase I Heritage Impact Assessment (HIA) study which was done according to Section 38 of the National Heritage Resources Act (No 25 of 1999) for a proposed new power plant and associated infrastructure on portions of the farms Haverglen 269IR and Haverklip 265IR to the south-east of Delmas on the Eastern Highveld in the Mpumalanga Province of South Africa.

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

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1) (except paleontological remains) do occur in the KiPower Project Area and, if so, to determine the nature, the extent and the significance of these remains.
- To establish if any of these heritage resources will be affected by the proposed KiPower Project and, if so, to evaluate what appropriate mitigation measures must be taken if any of the types and ranges of heritage resources will be affected by the proposed project.

The Phase I HIA for the proposed KiPower Project Area revealed the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) near the project area, namely:

- Informal graveyards.
- A historical residence with outbuildings.

The graveyards and historical structures were geo-referenced and mapped (Figure 2, Tables 1& 2).

### **The significance of the heritage resources**

It is highly likely that one of the graveyards (GY04) and the historical residence (S01) with outbuildings will be negatively affected when the proposed KiPower Project is constructed, in operation or when it is eventually closed.

The significance of the heritage resources therefore has to be indicated as well as mitigation measures for those heritage resources which will be affected by the KiPower Project.

### **The significance of the graveyards**

All graveyards and graves can be considered to be of high significance and are protected by various laws (Table 1). Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

### **The significance of the historical residence**

All buildings and structures older than sixty years are considered to be of historical significance and are protected by Section 34 and Section 38 of the National Heritage Resources Act (No 25 of 1999). The historical residence (S01) with outbuildings can be considered to be of medium significance when considering criteria such as the following (Table 2):

- Historical remains on the Eastern Highveld are disappearing at an alarming rate due to agricultural practices and the expansion of the coal mining industry.
- The residence and outbuildings are partly still intact and can add value to our knowledge regarding settlement and life ways during the early twentieth century on the Eastern Highveld.
- The historical structures have some research (scientific) value.

### **Mitigating the heritage resources**

The following mitigation measures have to be applied if any of the graveyards and/or the historical residence with outbuildings is affected during the construction, operation or the closure of the proposed Kipower Plant Project, namely:

#### **Mitigating the graveyards**

Graveyards can be mitigated in two ways depending on whether they may be affected, directly or indirectly, namely:

- By means of exhumation and relocation when graveyards are affected directly. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty

years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

- Graveyards can be demarcated with a brick wall or with a fence when it is not affected in any physical way (but only indirectly). Conserving graveyards *in situ* in developed areas create the risk and responsibility that they may be damaged, accidentally, that the developer remains responsible for the graveyards' future unaffected existence, maintenance and that controlled access must exist for any relatives or friends who wish to visit the deceased.

### **Mitigating the historical residence**

The historical residence (S01) and outbuildings have to be documented by a conservation architect before they may be destroyed. A letter providing approval for the destruction of these structures has to be issued by the South African Heritage Resources Agency (SAHRA) after these structures have been documented by the conservation architect.

### General: disclaimer

It is possible that this Phase I HIA study may have missed heritage resources in the Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

If any heritage resources of significance is exposed during the construction, operation or closure of the proposed KiPower Project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

	<b>Executive Summary</b>	<b>2</b>
<b>1</b>	<b>INTRODUCTION</b>	<b>6</b>
<b>2</b>	<b>TERMS OF REFERENCE</b>	<b>9</b>
<b>3</b>	<b>THE PROJECT AREA</b>	<b>10</b>
3.1	Location	10
3.2	Within a cultural landscape	11
3.3	The nature of the project	11
<b>4</b>	<b>APPROACH AND METHODOLOGY</b>	<b>12</b>
4.1	Fieldwork	12
4.2	Databases, literature survey and maps	12
4.3	Assumptions and limitations	13
4.4	Some remarks on terminology	13
<b>5</b>	<b>CONTEXTUALISING THE PROJECT AREA</b>	<b>17</b>
5.1	Stone Age and rock art sites	17
5.2	Iron Age remains	18
5.3	The Historical Period	20
5.4	A coal mining heritage	21
5.5	A vernacular stone architectural heritage	22
<b>6</b>	<b>THE PHASE I HERITAGE IMPACT ASSESSMENT</b>	<b>24</b>
6.1	Types and ranges of heritage resources	24
6.2	Graveyards	26
6.2.1	Graveyard 01	26
6.2.2	Graveyard 02	27
6.2.3	Graveyard 03	28
6.2.4	Graveyard 04	29
6.3	Historical remains	30
6.4	The significance of the heritage resources	31
6.4.1	The significance of the graveyards	33

6.4.2	The significance of the historical residence	33
6.5	Mitigating the heritage resources	34
6.5.1	Mitigating the graveyards	34
6.5.2	Mitigating the historical remains	35
<b>7</b>	<b>CONCLUSION AND RECOMMENDATIONS</b>	<b>36</b>
<b>8</b>	<b>SELECT BIBLIOGRAPHY</b>	<b>39</b>

## **APPENDIX A: DECLARATION OF INDEPENDENCE**

## **1 INTRODUCTION**

This document contains the report on a Phase I Heritage Impact Assessment (HIA) study which was done for the proposed KiPower power station and associated infrastructure to the south-east of Delmas on the Eastern Highveld in the Mpumalanga Province of South Africa.

The Mpumalanga 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 Mpumalanga Province therefore 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 Section 3 of the National Heritage Resources Act (No 25 of 1999) occur in the Mpumalanga Province (see Box 1, next page).

**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;
- (a) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (b) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (c) 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)
- (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;
- (i) sites of significance relating to the history of slavery in South Africa



## 2 TERMS OF REFERENCE

KiPower (Pty) Ltd (KiPower) is a subsidiary of Kuyasa Mining which also owns Delmas Coal and iKhwezi Colliery which are located approximately 20km to the south-east of Delmas in the Victor Khanye Municipality within the Nkangala District Municipality in the Mpumalanga Province. KiPower wishes to establish a new 600MW power plant with associated infrastructure in close proximity to Delmas Coal. The power station will utilise coal from this mine as fuel for the power plant. Associated with the power plant would be an ash disposal facility that will be located in close proximity to the plant.

Activities relating to the construction, operation and eventual closure of the power plant may impact on any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No. 25 of 1999). Consequently, Jones & Wagener (Pty) Ltd, the environmental consultant responsible for compiling the Environmental Impact Assessment (EIA) report for the new development, commissioned the author to undertake a Phase I HIA study for the proposed new KiPower Project.

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

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1) (except paleontological remains) do occur in the KiPower Project Area and, if so, to determine the nature, the extent and the significance of these remains.
- To establish if any of these heritage resources will be affected by the proposed KiPower Project and, if so, to evaluate what appropriate mitigation measures must be taken if any of the types and ranges of heritage resources will be affected by the proposed project.

### 3 THE PROJECT AREA

#### 3.1 Location

The proposed KiPower Plant Project is located on portions of the farms Haverglen 269IR and Haverklip 265IR which are located approximately 20km to the south-east of Delmas in the Victor Khanye Municipality within the Nkangala District Municipality in the Mpumalanga Province. The proposed new power plant and ash disposal facility with associated infrastructure is located to the south of the R50 which runs from Delmas in the west to Leandra in the east(2628BD Leandra& 2628BB Kendal 1: 50 000 topographical map & 2628 East Rand 1: 250 000 map) (Figures 1& 2).



**Figure 1- The proposed KiPower Project Area to the south-east of Delmas on the Eastern Highveld of the Mpumalanga Province is characterised by abandoned open cast mining areas which border on outstretched agricultural fields (above).**

The proposed KiPower Project Area is largely covered by abandoned open cast mining activities. It also incorporates and borders on agricultural fields in the north-east, east and in the south and therefore cannot be described as a pristine piece of land any longer.

### **3.2 Within a cultural landscape**

The proposed KiPower Project is located on the Eastern Highveld in the Mpumalanga Province. This part of the country is characterised by heritage resources which date from the pre-historical into the historical (colonial) period. Stone Age sites, including rock paintings, Iron Age sites and colonial remains therefore do occur in the Eastern Highveld. The archaeological and historical significance of this cultural landscape is briefly outlined in this report (see Part 5, 'Contextualising the Project Area').

### **3.3 The nature of the project**

The proposed KiPower Project will involve the development of a power station; the establishment of an ash disposal facility next to the power plant; building of conveyor belts between the power plant and Delmas Colliery and the construction of associated infrastructure. The footprint of these developmental components is referred to as the Project Area whilst the project is referred to as the proposed KiPower Project.

## **4 APPROACH AND METHODOLOGY**

This Phase I HIA study was conducted by means of the following:

- Surveying the Project Area with a vehicle and selected spots on foot.
- Briefly surveying literature relating to the pre-historical and historical context of the Project Area.
- Consulting maps of the proposed Project Area.
- Consulting archaeological (heritage) data bases.
- Synthesising all information obtained from the data bases, fieldwork, maps and literature survey.

### **4.1 Fieldwork**

The Project Area was surveyed with a vehicle where accessible roads existed while selected, sensitive spots in the Project Area were surveyed on foot.

### **4.2 Databases, literature survey and maps**

Databases kept and maintained at institutions such as the Provincial Heritage Resources Agency (PHRA) and the Archaeological Data Recording Centre at the National Flagship Institute (Museum Africa) in Pretoria were consulted to determine whether any heritage resources of significance has been identified during earlier heritage surveys in or near the Project Area.

The author is not unacquainted with the Project Area at large as he has done several heritage impact assessment studies near the proposed Project Area (see Part 9, 'Select Bibliography').

Literature relating to the pre-historical and the historical unfolding of the region where the Project Area is located was reviewed (see Part 5, 'Contextualising the Project Area' and Part 9 'Select Bibliography').

It is important to contextualise the pre-historical and historical background of the Project Area in order to comprehend the identity and meaning of heritage sites in and near the Project Area.

In addition, the Project Area was studied by means of maps on which it appears (2628BD Leandra & 2628BB Kendal 1: 50 000 topographical map & 2628 East Rand 1: 250 000 map).

### **4.3 Assumptions and limitations**

It is possible that this Phase I HIA study may have missed heritage resources in the Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

If any heritage resources of significance is exposed during the construction, operation or closure of the KiPower Project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

### **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 16<sup>th</sup> century and the 19<sup>th</sup> 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 20<sup>th</sup> 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 activities (refer to Figure 3).
- 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.



## **5 CONTEXTUALISING THE PROJECT AREA**

The following brief overview of pre-historical, historical, cultural and economic evidence will help to contextualise the Project Area.

### **5.1 Stone Age and rock art sites**

Stone Age sites are marked by stone artefacts that are found scattered on the surface of the earth or as parts of deposits in caves and rock shelters. The Stone Age is divided into the Early Stone Age (ESA) (covers the period from 2.5 million years ago to 250 000 years ago), the Middle Stone Age (MSA) (refers to the period from 250 000 years ago to 22 000 years ago) and the Late Stone Age (LSA) (the period from 22 000 years ago to 200 years ago).

Dongas and eroded areas at Maleoskop near Groblersdal is one of only a few places in Mpumalanga where ESA Olduwan and Acheulian artefacts have been recorded.

Evidence for the MSA has been excavated at the Bushman Rock Shelter near Ohrigstad. This cave was repeatedly visited over a prolonged period. The oldest layers date back to 40 000 years BP and the youngest to 27 000BP.

LSA occupation of the Mpumalanga Province also has been researched at Bushman Rock Shelter where it dates back 12 000BP to 9 000BP and at Höningnestkrans near Badfontein where a LSA site dates back to 4 870BP to 200BP.

The LSA is also associated with rock paintings and engravings which were done by San hunter-gatherers, KhoiKhoi herders and early iron age farmers. Approximately 400 rock art sites are distributed throughout Mpumalanga, notably in the northern and eastern regions at places such as Emalahleni (Witbank) (4), Lydenburg (2), White River and the southern Kruger National Park (76), Nelspruit and the Nsikazi District (250). The Ermelo area holds eight rock paintings.

The rock art of the Mpumalanga Province can be divided into San rock art which is the most wide spread, herder or KhoeKhoe paintings (thin scattering from the Limpopo Valley) through the Lydenburg district into the Nelspruit area) and localised late white farmer paintings. Farmer paintings can be divided into Sotho-Tswana finger paintings and Nguni engravings (Only 20 engravings occur at Boomplaats, north-west of Lydenburg). Farmer paintings are more localised than San or herder paintings and were mainly used by the painters for instructional purposes.

During the LSA and Historical Period, San people called the Batwa lived in sandstones caves and rock shelters near Lake Chrissie in the Ermelo area. The Batwa are descendants of the San, the majority of which intermarried with Bantu-Negroid people such as the Nhlapo from Swazi-descend and Sotho-Tswana clans such as the Pai and Pulana. Significant intermarriages and cultural exchanges occurred between these groups. The Batwa were hunter-gatherers who lived from food which they collected from the veldt as well as from the pans and swamps in the area. During times of unrest, such as the *difaqane* in the early nineteenth century, the San would converge on Lake Chrissie for food and sanctuary. The caves, lakes, water pans and swamps provided relatively security and camouflage. Here, some of the San lived on the surfaces of the water bodies by establishing platforms with reeds. With the arrival of the first colonists in the nineteenth century many of the local Batwa family groups were employed as farm labourers. Descendants of the Batwa people still live in the larger Project Area.

## **5.2 Iron Age remains**

The Iron Age is associated with the first agro-pastoralists or farming communities who lived in semi-permanent villages and who practised metal working during the last two millennia. The Iron Age is usually divided into the Early Iron Age (covers the 1<sup>st</sup> millennium AD) and the Later Iron Age (LIA) (covers the first 880 years of the 2<sup>nd</sup> millennium AD).

Evidence for the first farming communities in the Mpumalanga Province is derived from a few early iron age potsherds which occur in association with the LSA occupation of the Höningnest Shelter near Badfontein. The co-existence of early iron

age potsherds and LSA stone tools suggest some form of 'symbiotic relationship' between the Stone Age hunter-gatherers who lived in the cave and early iron age farmers in the area (also note Batwa and Swazi/Sotho Tswana relationship).

The Welgelegen Shelter on the banks of the Vaal River near Ermelo also reflects some relationship between early iron age farmers who lived in this shelter and hunter-gatherers who manufactured stone tools and who occupied a less favourable overhang nearby during AD1200.

Early iron age sites were also investigated at Sterkspruit near Lydenburg (AD720) and in Nelspruit where the provincial governmental offices were constructed. The most infamous early iron age site in South Africa is the Lydenburg head site which provided two occupation dates, namely during AD600 and from AD900 to AD1100. At this site the Lydenburg terracotta heads were brought to light. Doornkop, located south of Lydenburg, dates from AD740 and AD810.

The Late Iron Age is well represented in Mpumalanga and stretches from AD1500 well into the nineteenth century and the Historical Period. Several spheres of influence, mostly associated with stone walled sites, can be distinguished in the region. Some of the historically well-known spheres of influence include the following:

- Early arrivals in the Mpumalanga Province such as Bakone clans who lived between Lydenburg and Machadodorp and Eastern Sotho clans such as the Pai, Pulana and Kutswe who established themselves in the eastern parts of the province.
- Swazi expansion into the Highveld and Lowveld of the Mpumalanga Province occurred during the reign of Sobhuza (AD1815 to 1836/39) and Mswati (AD1845 to 1868) while Shangaan clans entered the province across the Lembombo Mountains in the east during the second half of the nineteenth century.
- The Bakgatla (Pedi) chiefdom in the Steelpoort Valley rose to prominence under Thulare during the early 1800's and was later ruled by Sekwati and

Sekhukune from the village of Tsjate in the Leolo Mountains. The Pedi maintained an extended sphere of influence across the Limpopo and Mpumalanga Provinces during the nineteenth century.

- The Ndzundza-Ndebele established settlements at the foot of the Bothasberge (KwaMaza and Esikhunjini) in the 1700's and lived at Erholweni from AD1839 to AD1883 where the Ndzundza-Ndebele's sphere of influence became known as KoNomthjarhelo which stretched across the Steenkampsberge.
- The Bakopa lived at Maleoskop (1840 to 1864) where they were massacred by the Swazi while the Bantwane live in the greater Groblersdal and Marble Hall areas.
- Corbelled stone huts which are associated with ancestors of the Sotho on Tafelkop near Davel which date from the AD1700's into the nineteenth century.
- Stone walled settlements spread out along the eastern edge of the Groot Dwarsriver Valley served as the early abode for smaller clans such as the Choma and Phetla communities which date from the nineteenth century.

### **5.3 The Historical Period**

Historical towns closest to the Project Area include Leandra and Delmas.

Delmas was laid out in 1907 on the farm Witklip ('white stone') which was divided into 192 residential stands, 48 smallholdings of 4 ha each and a commonage of 138ha. The farm belonged to Frank Dumat who originated from France where his grandfather had a small farm. He named the town Delmas which is derived from 'mas' which means a small farm in a southern dialect of French. In 1909 the government added another 5 500 ha to Frank Dumat's original rural settlement.

The town of Leandra's name is derived from two townships, Leslie and Eendrag, which are incorporated in this mining village.

Kinross, about 20 km east of Leandra, is the railhead for the township of Leandra and four gold mines in the region, namely Winkelhaak, Leslie, Bracken and Kinross who all opened in the 1950's.

The village was proclaimed in the 1915 and named for Kinross in Scotland by the engineers who constructed the railway line between Springs and Breyton. Kinross is near the watershed that separates the rivers flowing towards the Indian Ocean in the east and the rivers flowing towards the Atlantic Ocean in the west.

#### **5.4 A coal mining heritage**

Coal mining on the Eastern Highveld is now older than one century and has become the most important coal mining region in South Africa. Whilst millions of tons of high-grade coal are annually exported overseas more than 80% of the country's electricity is generated on low-grade coal in Eskom's power stations such as Duvha, Matla and Arnot situated near coalmines on the Eastern Highveld.

The earliest use of coal (charcoal) in South Africa was during the Iron Age (300-1880AD) when metal workers used charcoal, iron and copper ores and fluxes (quartzite stone and bone) to smelt iron and copper in clay furnaces.

Colonists are said to have discovered coal in the FrenchHoek Valley near Stellenbosch in the Cape Province in 1699. The first reported discovery of coal in the interior of South Africa was in the mid-1830 when coal was mined in Kwa Zulu/Natal.

The first exploitation for coal was probably in Kwa Zulu/Natal as documentary evidence refers to a wagon load of coal brought to Pietermaritzburg to be sold in 1842. In 1860 the coal trade started in Dundee when a certain Pieter Smith charged ten shillings for a load of coal dug by the buyer from a coal outcrop in a stream. In 1864 a coal mine was opened in Molteno. The explorer, Thomas Baines mentioned that farmers worked coal deposits in the neighbourhood of Bethal (Transvaal) in 1868. Until the discovery of diamonds in 1867 and gold on the Witwatersrand in 1886, coal mining only satisfied a very small domestic demand.

With the discovery of gold in the Southern Transvaal and the development of the gold mining industry around Johannesburg came the exploitation of the Boksburg-Spring coal fields, which is now largely worked out. By 1899, at least four collieries were operating in the Middelburg-Witbank district, also supplying the gold mining industry. At this time coal mining also has started in Vereeniging. The Natal Collieries importance was boosted by the need to find an alternative for imported Welsh anthracite used by the Natal Government Railways.

By 1920 the output of all operating colliers in South Africa attained an annual figure of 9,5 million tonnes. Total in-situ reserves were estimated to be 23 billion tonnes in Witbank-Springs, Natal and Vereeniging. The total in situ reserves today are calculated to be 121 billion tonnes. The largest consumers of coal are Sasol, Eskom and the steel making industry.

## **5.5 A vernacular stone architectural heritage**

A unique stone architectural heritage was established in the Eastern Highveld from the second half of the 19<sup>th</sup> century well into the early 20<sup>th</sup> century. During this time period stone was used to build farmsteads and dwellings, both in urban and in rural areas. Although a contemporary stone architecture also existed in the Karoo and in the Eastern Free State Province of South Africa a wider variety of stone types were used in the Eastern Highveld. These included sandstone, ferricrete ('ouklip'), dolerite ('blouklip'), granite, shale and slate.

The origins of a vernacular stone architecture in the Eastern Highveld may be ascribed to various reasons of which the ecological characteristics of the region may be the most important. Whilst this region is generally devoid of any natural trees which could be used as timber in the construction of farmsteads, outbuildings, cattle enclosures and other structures, the scarcity of fire wood also prevented the manufacture of baked clay bricks. Consequently stone served as the most important building material in the Eastern Highveld.

LIA Sotho, Pedi, Ndebele and Swazi communities contributed to the Eastern Highveld's stone walled architecture. The tradition set by these groups influenced settlers from Natal and the Cape Colony to utilize the same resources to construct dwellings and shelters. Farmers from Scottish, Irish, Dutch, German and Scandinavian descent settled and farmed in the Eastern Highveld. They brought the knowledge of stone masonry from Europe. This compensated for the lack of fire wood on the eastern Highveld which was necessary to bake clay bricks.

## **6 THE PHASE I HERITAGE IMPACT ASSESSMENT**

### **6.1 Types and ranges of heritage resources**

The Phase I HIA for the proposed KiPower Project Area revealed the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) near the project area, namely:

- Informal graveyards.
- A historical residence with outbuildings.

The graveyards and historical structures were geo-referenced and mapped (Figure 2, Tables 1& 2).

The significance of these heritage resources is indicated as well as mitigation measures should any of these heritage resources be affected by the KiPower Project.



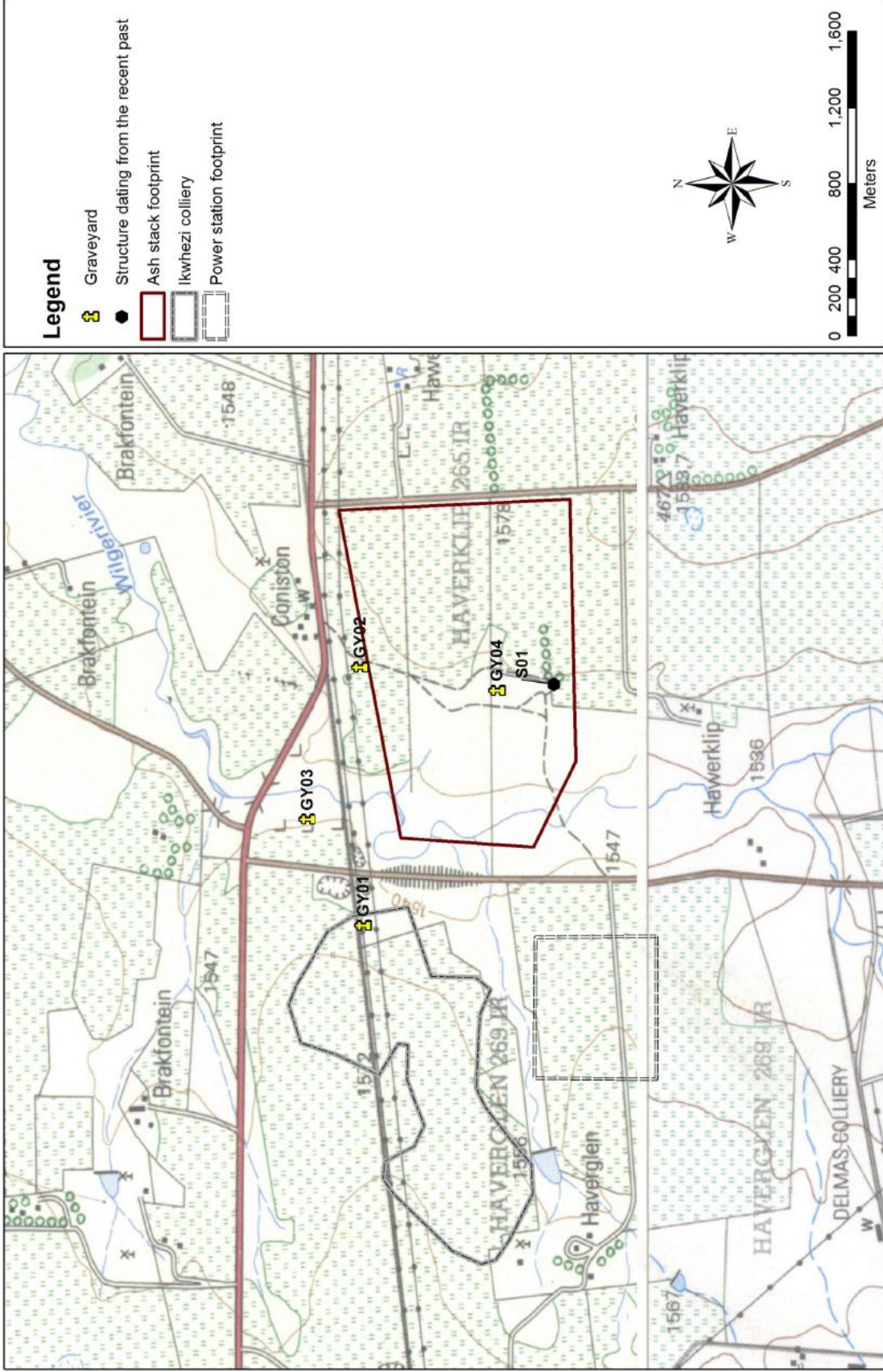


Figure 2. The proposed KiPower Project on portions of the farms Haverghien 269 IR and Haverklip 265 IR to the south-east of Delmas on the Eastern Highveld in the Mpumalanga Province. Note the presence of graveyards near the Project Area.

## 6.2 Graveyards

The following graveyards were observed in and near the Project Area, namely:

### 6.2.1 Graveyard 01

This historical graveyard on Haverglen 269IR holds as many as twenty five graves and is located in close proximity of Eskom's 400kV power lines. Most of the graves are fitted with cement headstones.

Inscriptions on some of the headstones read as follow:

- 'Martha MguniWabhubHangoMhlaka'
- 'William MguniWabhubHangoMhlaka'
- 'EvangelisMtetwaSameulMasangoWazalwa 13-12-1927 Washona 4-5-1977 LalaNgoxolo'



**Figure 3- GY01 on Haverglen 365IR holds approximately twenty five graves which are located close to Eskom's 400kV power lines (above).**



## 6.2.2 Graveyard 02

GY02 on Haverklip 265IR is also located in close proximity of Eskom's proposed 400kV power line. It holds approximately forty graves of which the majority is decorated.

Inscriptions on some of the graves read as follow:

- 'Sarah Mahlangu Born 01-01-1918 Died 08-04-1991 Job 7:7 Rest in peace'
- 'CatrienaHansuWashona 28 Feb'
- 'Lapakulele William 5-10-76 Exodus 14 Ves 13'
- Lucia Agent Skhosana 1928-04-26 1975-10-11 LalaNgoxolo'



**Figure 4- GY02 on Haverklip 265IR may hold as many as forty graves, most of which are decorated (above).**

### 6.2.3 Graveyard 03

GY03 on Haverklip 265IR is located to the north of Eskom's proposed 400kV power line and to the south of the R50. It is associated with the disintegrated remains of dwellings and both the dwellings and the graveyard are located on the western banks of the Wilgespruit.

This graveyard is divided into different sections and may contain more than fifty graves.

Inscriptions on some of the headstones read as follow:

- 'In loving memory of our mother AlettaMahlangu 11-11-1978
- ' Maria ZintoMabhene Died 12-3-1924 Matevu 4:25'
- 'Elias Mahlangu'



**Figure 4- GY03 on Haverklip 265IR contains more than fifty graves and is divided into different sections indicating that families from different clans were buried here (above).**



#### 6.2.4 Graveyard 04

This family graveyard holds two graves which are fenced-in. The graves are fenced-in with a metal framework. The inscriptions on the two gravestones read as follow:

- 'Dirk JakobusGerhardusStephanus Botha \*13 Aug 1890 †25 Jan 1940'
- 'Wilhelmina Hart Botha (geb Browne) \*9 Feb 1900 †27 April 1966'



**Figure 6- GY04 holds the remains of two individuals and is located in the midst of a Blue Gum lot (above).**

<b>GRAVEYARDS</b>	<b>COORDINATES</b>	<b>SIGNIFICANCE</b>
GY01	26° 14.222'S 28° 50.991'E	<b>HIGH</b>
GY02	26° 14.213'S 28° 51.725'E	<b>HIGH</b>
GY03	26° 14.060'S 28° 51.293E	<b>HIGH</b>
GY04	26° 14 36.12'S 28° 51 39.54E	<b>HIGH</b>

**Table 1- The coordinates and the significance of graveyards near the Project Area (above).**

### **6.3 Historical remains**

Remains such as those of dwellings do occur in the KiPower Project Area. However, most of these remains have been constructed with mud and have disintegrated. Some of these remains date from the more recent and are considered to be of low significance. A single historical residence with two small outbuildings was recorded in the project area.

#### **6.3.1 A historical residence**

At least one structure (S01) with outbuildings which date from the more recent past was recorded. These structures were constructed with face bricks and cement and were probably fitted with corrugated iron roofs which now have disappeared. These structures were geo-referenced and mapped (Figure 2, Table 2). These structures may approach sixty years of age and therefore may have historical significance.



**Figure 7- A historical residence (S01) with outbuildings on Haverklip 269IR. These structures were constructed with face bricks and cement and are partially still intact (above).**

<b>STRUCTURES</b>	<b>COORDINATES</b>	<b>SIGNIFICANCE</b>
S01	26° 14.764'S 28° 51.677'E	Medium

**Table 2- The coordinates and the significance of a structure dating from the more recent pas in the KiPower Project Area (above).**

#### **6.4 The significance of the heritage resources**

It is highly likely that one of the graveyards (GY04) and the historical residence (S01) with outbuildings will be negatively affected when the proposed KiPower Project is implemented, in operation or when it is eventually closed.

The significance of the heritage resources therefore has to be indicated as well as mitigation measures for those heritage resources which will be affected by the KiPower Project.

The significance of potential environmental impacts was determined using a ranking scale, based on the following:

- Occurrence
  - Probability of occurrence (how likely is it that the impact may/will occur?), and
  - Duration of occurrence (how long may/will it last?)
- Severity
  - Magnitude (severity) of impact (will the impact be of high, moderate or low severity?), and
  - Scale/extent of impact (will the impact affect the national, regional or local environment, or only that of the site?)

Each of these factors has been assessed for each potential impact using the following ranking scales:

Probability: 5 – Definite/don't know 4 – Highly probable 3 – Medium probability 2 – Low probability 1 – Improbable 0 – None	Duration: 5 – Permanent 4 - Long-term (ceases with the operational life) 3 - Medium-term (5-15 years) 2 - Short-term (0-5 years) 1 – Immediate
Scale: 5 – International 4 – National 3 – Regional 2 – Local 1 – Site only 0 – None	Magnitude: 10 - Very high/don't know 8 – High 6 – Moderate 4 – Low 2 – Minor

The environmental significance of each potential impact was assessed using the following formula:

$$\text{Significance Points (SP)} = (\text{Magnitude} + \text{Duration} + \text{Scale}) \times \text{Probability}$$

The maximum value is 100 Significance Points (SP). Potential environmental impacts are rated as very high, high, moderate, low or very low significance on the following basis:

- More than 80 significance points indicates VERY HIGH environmental significance.
- Between 60 and 80 significance points indicates HIGH environmental significance.
- Between 40 and 60 significance points indicates MODERATE environmental significance.
- Between 20 and 40 significance points indicates LOW environmental significance.
- Less than 20 significance points indicates VERY LOW environmental significance.



### 6.4.1 The significance of the graveyards

All graveyards and graves can be considered to be cultural resources and are protected by various laws (Table 1). Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended). The impact assessment for the various grave sites is given in Table 3.

Grave-yard	Probability of project impacting on this site	Magnitude if project impacts on this site	Duration if project impacts on this site	Scale if project impacts on this site	Significance points	Significance rating
GY01	1	8	5	2	15	Very Low
GY02	4	8	5	2	60	High
GY03	1	8	5	2	15	Very low
GY04	5	8	5	2	75	Very high

**Table 3: Significance of potential impacts on grave sites in close proximity to the project area**

### 6.4.2 The significance of the historical residence

All buildings and structures older than sixty years are considered to be of historical significance and are protected by Section 34 and Section 38 of the National Heritage Resources Act (No 25 of 1999). The historical residence (S01) with outbuildings can be considered to be of medium significance when considering criteria such as the following (Table 2):

- Historical remains on the Eastern Highveld are disappearing at an alarming rate due to agricultural practices and the expansion of the coal mining industry.

- The residence and outbuildings are partly still intact and can add value to our knowledge regarding settlement and life ways during the early twentieth century on the Eastern Highveld.
- The historical structures have some research (scientific) value.

The impact assessment for the historical residence is given in Table 4.

Historical Residence	Probability of project impacting on this site	Magnitude if project impacts on this site	Duration if project impacts on this site	Scale if project impacts on this site	Significance points	Significance rating
S01	5	8	5	2	75	Very high

**Table 4: Significance of potential impacts on historical residence in close proximity to the project area**

## 6.5 Mitigating the heritage resources

The following mitigation measures have to be applied if any of the graveyards and/or the historical residence with outbuildings is affected during the construction, operation or the closure of the proposed Kipower Plant Project, namely:

### 6.5.1 Mitigating the graveyards

Graveyards can be mitigated in two ways depending on whether they may be affected, directly or indirectly, namely:

- By means of exhumation and relocation when graveyards are affected directly. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days

statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

- Graveyards can be demarcated with a brick wall or with a fence when it is not affected in any physical way (but only indirectly). Conserving graveyards *in situ* in developed areas create the risk and responsibility that they may be damaged, accidentally, that the developer remains responsible for the graveyards' future unaffected existence, maintenance and that controlled access must exist for any relatives or friends who wish to visit the deceased.

### **6.5.2 Mitigating the historical residence**

The historical residence (S01) and outbuildings have to be documented by a conservation architect before they may be destroyed. A letter providing approval for the destruction of these structures has to be issued by the South African Heritage Resources Agency (SAHRA) after these structures have been documented by the conservation architect.

## **7 CONCLUSION AND RECOMMENDATIONS**

The Phase I HIA for the proposed KiPower Project Area revealed the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) near the project area, namely:

- Informal graveyards.
- A historical residence with outbuildings.

The graveyards and historical structures were geo-referenced and mapped (Figure 2, Tables 1 & 2).

### **The significance of the heritage resources**

It is highly likely that one of the graveyards (GY04) and the historical residence with outbuildings (S01) will be negatively affected when the proposed KiPower Project is constructed, in operation or when it is eventually closed.

The significance of the heritage resources therefore has to be indicated as well as mitigation measures for those heritage resources which will be affected by the KiPower Project.

### **The significance of the graveyards**

All graveyards and graves can be considered to be of high significance and are protected by various laws (Table 1). Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

## **The significance of the historical residence**

All buildings and structures older than sixty years are considered to be of historical significance and are protected by Section 34 and Section 38 of the National Heritage Resources Act (No 25 of 1999). The historical residence (S01) with outbuildings can be considered to be of medium significance when considering criteria such as the following (Table 2):

- Historical remains on the Eastern Highveld are disappearing at an alarming rate due to agricultural practices and the expansion of the coal mining industry.
- The residence and outbuildings are partly still intact and can add value to our knowledge regarding settlement and life ways during the early twentieth century on the Eastern Highveld.
- The historical structures have some research (scientific) value.

## **Mitigating the heritage resources**

The following mitigation measures have to be applied if any of the graveyards and/or the historical residence with outbuildings is affected during the construction, operation or the closure of the proposed Kipower Plant Project, namely:

### **Mitigating the graveyards**

Graveyards can be mitigated in two ways depending on whether they may be affected, directly or indirectly, namely:

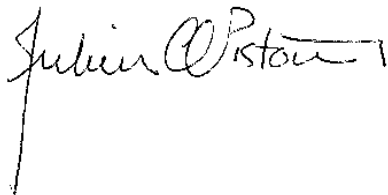
- By means of exhumation and relocation when graveyards are affected directly. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the

descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

- Graveyards can be demarcated with a brick wall or with a fence when it is not affected in any physical way (but only indirectly). Conserving graveyards *in situ* in developed areas create the risk and responsibility that they may be damaged, accidentally, that the developer remains responsible for the graveyards' future unaffected existence, maintenance and that controlled access must exist for any relatives or friends who wish to visit the deceased.

### **Mitigating the historical residence**

The historical residence (S01) and outbuildings have to be documented by a conservation architect before they may be destroyed. A letter providing approval for the destruction of these structures has to be issued by the South African Heritage Resources Agency (SAHRA) after these structures have been documented by the conservation architect.

A handwritten signature in black ink, appearing to read 'Julius C. Pistorius'. The signature is written in a cursive style with a long vertical line extending downwards from the end of the name.

**DR JULIUS CC PISTORIUS**

**Archaeologist & Heritage Consultant**

**Member ASAPA**

## 8 SELECT BIBLIOGRAPHY

Bergh, J.S. (red.) 1998. *Geskiedenisatlas van SuidAfrika. Die viernoordelikeprovinsies*. J.L. van Schaik: Pretoria.

Erasmus, B.P.J. 1995. *Oppad in SuidAfrika. 'n Gids tot SuidAfrika, StreekvirStreek*. Jonathan Ball UitgewersBpk.

Evers, T.M. 1981. The Iron Age in the Eastern Transvaal, South Africa. In Voight, E.A. (ed). *Guide to archaeological sites in Northern and Eastern Transvaal*. Pretoria: South African Association of Archaeologists, 64-109.

Mason, R.J. 1968. Transvaal and Natal Iron Age settlement revealed by aerial photography and excavation. *African Studies*. 27:167-180.

Naude, M. 1993. The use of stone on farmsteads on the eastern Transvaal. *Africana Society of Pretoria* (11): 49-55.

Naude, M. 2000. Vernacular stone buildings and structures on farmsteads in the southern districts of the Mpumalanga Province. *South African Journal of Cultural History*. 14(2): 31-64

Pistorius, J.C.C. 2002. *A Heritage Impact Assessment (HIA) study for a new power line on the farm Rietvallei 397JS between Middelburg and Arnot in the Mpumalanga Province of South Africa*. Unpublished report done for Eskom, Menlyn.

Pistorius, J.C.C. 2003. *A Heritage Impact Assessment study for the proposed 22kV Duvha Colliery power line deviation near Middelburg in the Mpumalanga Province of South Africa*. Unpublished report done for Eskom, Menlyn.

Pistorius, J.C.C. 2004. *A Heritage Impact Assessment (HIA) study for the EMP Amendment for Douglas Colliery in the Mpumalanga Province of South Africa*. Unpublished report for Pulles, Howard and De Lange.

Pistorius, J.C.C. 2004. *A Heritage Impact Assessment (HIA) study for the proposed new Optimum Colliery on the farm Schoonoord 164IS in the Mpumalanga Province of South Africa*. Unpublished report done for African EPA.

Pistorius, J.C.C. 2005. *Results of a Phase II Heritage Impact Assessment Study: An investigation of a historical sandstone farmstead and outbuildings on the banks of the Olifants River on the farm Kleynkopje 15IS within the boundaries of Douglas Colliery in the Mpumalanga Province of South Africa*. Unpublished report for the South African Heritage Resources Authority (SAHRA), Pulles Howard and De Lange (PHD) and Douglas Colliery.

Pistorius, J.C.C. 2007. *A Phase I Heritage Impact Assessment (HIA) study for the proposed deviation of a tributary of the Riet River in the Matla Colliery mining area on the Eastern Highveld in the Mpumalanga Province of South Africa*. Unpublished report for Golder.

Pistorius, J.C.C. 2008. *A Phase I Heritage Impact Assessment (HIA) study for Keaton Mining's (Pty) Ltd proposed new opencast and underground mining activities on the farm Vanggatfontein 251 east of Delmas on the Eastern Highveld in the Mpumalanga Province of South Africa*. Unpublished report prepared for Metago Environmental Engineers.

Pretorius, Fransjohan. 1999. *Life on commando during the Anglo Boer War 1899-1902*. Human & Rousseau: Cape Town.



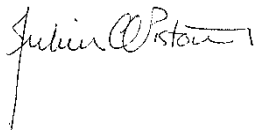
## APPENDIX A: DECLARATION OF INDEPENDENCE

I, Julius CC Pistorius, declare that:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the National Heritage Resources Act (No 25 of 1999) and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- I will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations;
- and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

### **Disclosure of Vested Interest**

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010.



Signature of the environmental practitioner:  
Private Consultant

Name of company:  
20 December 2011

Date:

Signature of the Commissioner of Oaths:

Date:

Designation: