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A PHASE I HERITAGE IMPACT ASSESSMENT (HIA) STUDY FOR ESKOM'S PROPOSED 132kV POWER LINES BETWEEN THE PROPOSED TSHATANE AND LESEGO SUBSTATIONS AND BETWEEN THE PROPOSED TSHATANE SUBSTATION AND THE EXISTING JANE FURSE SUBSTATION IN THE LIMPOPO 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 (No 25 of 1999) was done for Eskom's proposed Tshatane and Lesego Substations and for the proposed 132kV power lines between the proposed Tshatane and Lesego Substation and the 132kV power lines between the proposed Tshatane Substation and the existing Jane Furse Substation in the Limpopo Province. The construction of the proposed new substations and 132kV power lines is hereafter referred to as the Eskom Project whilst the areas (footprints of the developmental components) to be affected by the power lines is referred to as the Eskom Project Area.

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 (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 and management of significant heritage resources that may be affected by the Eskom Project.

No heritage resources as those listed in Section 3 of the National Heritage Resources Act (No 25 of 1999) were observed in the Eskom Project Area. Although remains of possible dwellings and a number of small stones piles (collected when agricultural fields were cleared) were observed along Option 01, 02, 03 and 04 for the proposed 132kV power lines between Tshatane and Lesego these remains are considered to be of low significance. The stones were probably collected when the veld was cleared in preparation of being utilised as agricultural fields.

There is consequently no reason from a heritage point of view why any of the options for the proposed Tshatane Substation or for the proposed Lesego Substation could not be used for the development of these substations. There is also no reason from a heritage point of view why any of the options for the proposed 132kV Tshatane-Lesego power line or the proposed132kv Tshatane-Jane Furse power lines cannot be constructed by Eskom.

General

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 Eskom 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.

CONTENTS

1 INTRODUCTION

This document contains the report on the results of the Phase I Heritage Impact Assessment (HIA) study that was done for Eskom's proposed Tshatane and Lesego Substations and for 132kV power lines between the proposed Tshatane and Lesego Substations and between the proposed Tshatane Substation and the existing Jane Furse Substation in the Limpopo Province.

Focused archaeological research has been conducted in the Limpopo 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 Limpopo 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 Limpopo 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 [No 25 of 1999]) occur in the Limpopo 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 AIMS WITH THIS REPORT

Eskom intends to construct the Tshatane and Lesego Substations and 132kV power lines between the proposed Tshatane and Lesego Substations and between the Tshatane Substation and the existing Jane Furse Substation in the Limpopo Province. This Eskom 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 (No 25 of 1999).

In order to comply with heritage legislation, Eskom requires knowledge of the presence, relevance and the significance of any heritage resources that may be affected by the Eskom Project. Eskom needs this knowledge in order to take pro-active measures with regards to any heritage resources that may be affected, damaged or destroyed when the Eskom Project is implemented. Dynamic Integrated Geohydro Environmental Services (DIGES), the environmental company responsible for compiling the Environmental Impact Assessment (EIA) for the Eskom Project therefore commissioned the author to undertake a Phase I HIA study for the Eskom Project Area.

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 (No 25 of 1999) do occur in the Eskom Project Area and, if so to determine the significance of these heritage resources.
- To make recommendations regarding the mitigation and management of significant heritage resources that may be affected by the Eskom Project.

3 METHODOLOGY

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

3.1 Fieldwork

The proposed Eskom Project Area (which involves the sites for the proposed Tshatane and Lesego Substations and for the proposed Tshatane-Lesego power lines as well as for the proposed Tshatane-Jane Furse power lines) was surveyed with a vehicle (where accessible roads existed) as these power lines run along more than sixty kilometres. Selected stretches of the power lines as well as spots along the power line corridors were surveyed on foot, e.g. where evidence for earlier occupation could be observed. This sort of evidence mostly comprises surface features such as ecological indicators reflecting an altered environment from the original, e.g. unnatural plant growth, bald or overgrown areas, evidence for an uneven terrain, etc..

Short stretches of Option 01 for the proposed Tshatane to Lesego and Tshatane to Jane Furse power line (after leaving the Tshatane Substation site 01) cross mountain ranges running through a mountain range on the eastern outskirts of the village of Ga-Maja and runs between the series of mountains Magaragareng, Ramobe, Marolo, Legwele). These short stretches were inaccessible and were not surveyed.

The survey for the two options for the Lesego Substation was restricted due to the presence of dense sickle bush on these sites. However, by following bare patches in the sickle bush a pedestrian survey of these spots revealed no heritage resources of significance.

No GPS track pathway is available as this survey was conducted *prior* to SAHRA advising the use of this application.

3.2 Databases, literature survey and maps

The desktop study also involved consulting heritage data banks maintained at institutions such as the Limpopo/Mpumalanga Provincial Heritage Resources Agencies, the Archaeological Data Recording Centre at the National Flagship Institute (Museum Africa) in Pretoria and the national heritage resources register at the South African Heritage Resources Agency (SAHRIS) in Cape Town.

The author is acquainted with the Eskom Project Area at large as he had done several heritage impact assessment studies near the Eskom Project Area (see Part 8, 'Select Bibliography').

Literature relating to the pre-historical and the historical unfolding of the Eskom Project Area was reviewed (see Part 5, 'Contextualising the Project Area') in order to comprehend the identity and meaning of heritage sites which may be found in and near the Project Area.

Maps outlining the Eskom Project Area were studied (2429BC Lebowakgomo, 2429BD Ga Mankopane and 2429DB Sekwati 1:50 000 topographical maps; 2428 Modimolle 1: 250 000 map and Google imagery).

3.3 Assumptions and limitations

It is possible that this Phase I HIA study may have missed heritage resources in the Eskom 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 Eskom 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 authorization (permits) from SAHRA to conduct the mitigation measures.

3.4 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 do 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.

4 THE PROJECT AREA

4.1 Location

The Eskom Project is located in a triangular region which is demarcated between the Strydpoort and Makaa mountain ranges in Chuniespoort in the north-west, traditionally the influence sphere of the Bakgaga Bamakaa of Mphalele, the Tsjate cultural landscape in the north-east where the Pedi reached its zenith under Sekhukhune during the nineteenth century and the Sekwati/Jane Furse area further towards the south which used to be the sphere of influence of Mampuru of the Pedi.

This vast region is characterised by extensive mountain ranges with flat valley floors in-between. These valleys are covered with agricultural fields and numerous networks of streams and dongas. The Olifants River cuts across the north-western corner of this rugged terrain and is joined by the Mohaletsi River towards the central part of the Project Area (2429BC Lebowakgomo, 2429BD Ga Mankopane and 2429DB Sekwati 1:50 000 topographical maps) (Figures 1 and 2).

4.2 The nature of the Eskom Project Area

The Project Area is not a pristine piece of land any longer as informal villages are scattered throughout the area. Communities have practised mixed farming for decades and perhaps even for centuries. This is definitely the case for historical villages such as Tsjate and others which occur along the Leolo, Makaa and Thaba ya Sekhukhune mountain ranges which delineate the Project Area towards the north-west, north and east. This used to be the home of numerous diverse clans who eventually were moulded into the nineteenth century Pedi chiefdom (see Part 5, ‘Contextualising the Project Area’).

Archaeological and heritage resources in the Project Area, as elsewhere in Sekhukhuneland, are being destroyed at an increasing rate as a result of three main factors, namely:

- Uncontrolled agricultural practises on valley floors where hundreds of archaeological sites have been under-ploughed particularly since tractors have been introduced in agriculture in this part of the country.

- Erosion, which washes archaeological deposits away. Archaeological remains consisting of stone tools and potsherds that have been washed from archaeological deposits can be seen in the numerous dongas that are scattered across the region.
- Settlements in Sekhukhuneland are established on top of older (archaeological and historical) settlements while expanding villages gradually incorporates older villages which are mainly located along the footslopes of the Thaba ya Sekhukhune and the Leolo Mountain ranges.

Figure 1- The Eskom Project Area between the villages of Ga-Kgaphela and Ga-Mankopane (Ga-Modupi) characterises the Project Area at large. Note how wide agricultural fields (or plots) are spread across the Project Area (above).

The people of Sekhukhuneland practised cultivating and stock farming for many centuries – practices that are still continued today. Agricultural plots are utilized by local communities. In the past, chiefs allocated pieces of land to the heads of wards that then provided plots to married men. The sizes of plots were determined by the number of wives a man had, but each plot was usually 1 to 2 hectares, which is the

maximum that a woman could cultivate using a hoe. The introduction of the plough allowed families to cultivate larger areas of land, up to about 4, 5 hectares.

Crops included sorghum (*mabele*) and millet (*letsoa*), which were later largely replaced by maize (*mahea*) as a staple food. Supplementary crops included pumpkins (*marotse*), various varieties of gourd (*maraka*), beans (*dinawa*) and a type of groundnut (*ditloo*). Tobacco and sugarcane were also planted.

Although each person usually possessed his own stock, pasturage was used on a communal basis. At a fixed time the tribal ruler declared the reaped grain fields open for use as winter grazing. Grazing cattle in particular disturbs heritage resources, as deposits on sites are churned underhoof and low stone foundations are broken and scattered.

Figure 2- View across the Eskom Project Area from the foot of the Ramola mountain range reveals the large number of agricultural fields (plots) in this part of the Eskom Project Area (above).

The uninterrupted occupation of Sekhukhuneland over a long period of time, an increase in population numbers as well as un-preceded development in the region is

however gradually changing a once extraordinary cultural landscape with unique heritage characters and features.

4.3 The nature of the Eskom Project

The key development components of the proposed Eskom Project include the following:

- The construction of the proposed Tshatane Substation. Three alternatives are proposed for the substation, namely Option 01, Option 02 and Option 03.
- The construction of the proposed 132kV power line between the Tshatane Substation and the Lesego Substation. Four alternatives are proposed for the power line, namely Option 01 to Option 04. Long stretches of these alternatives for the power line overlaps.
- The construction of the proposed 132kV power line between the Tshatane Substation and the existing Jane Furse Substation. Four alternatives are proposed for the power line, namely Option 01 to Option 04. Long stretches of these alternatives for the power line overlaps.
- The construction of the proposed Lesego Substation. Two alternatives are proposed for the substation, namely Option 01 and Option 02.

The different developmental components (substation sites and power line alternatives) for the project are referred to as the Eskom Project whilst the areas (footprints) of the various developmental components are referred to as the Project Area.

4.4 The heritage potential of the Project Area

The Project Area is located to the south of the Leolo Mountain range and also to the south of the heartland of the pre-historical and the historical Pedi chiefdom. This part of Sekhukuneland is relatively unknown with regard to its heritage potential. The archaeological and historical significance of the larger region which incorporates the Pedi heartland is therefore briefly described before the results of the Phase I HIA study is discussed (see Part 5, ‘Contextualising the Project Area’).

5 CONTEXTUALISING THE PROJECT AREA

The Project Area is located to the south of the Pedi heartland in Sekhukhune. The following background information is aimed at contextualising the Project Area with regard to the presence of certain types and ranges of heritage resources that may be found in the region.

5.1 Pre-historical context

Stone Age sites are scattered in the extensive network of dongas which occur across the wide valleys floors between the Leolo and other mountain ranges in the northern part of the Steelpoort Valley. Some sites have been observed by the author on farms such as Hendriksplaats 281, Derde Gelid 278, Onverwacht 292, Winterveld 293, Annex Grootboom 335 and Apiesboomen 295 (Pistorius 2005a, 2005b). These stone tools date from the Early Stone Age (500 000 to 200 000 years ago), the Middle Stone Age (200 000 to 40 000 years ago) and from the Late Stone Age (40 000 to 200 years ago).

However, no archaeological survey for Stone Age sites as part of any extensive or in-depth Stone Age research project has to the knowledge of this author been done in the Steelpoort River Valley as yet.

5.2 Pre-historical and early Historical Period

The origins of the first Bantu-Negroid farming communities who practised agriculture, live-stock herding and metal working can be traced to the Steelpoort Valley. These Early Iron Age farming communities whose settlements have been recorded on amongst others Hendriksplaats 281 and Derde Gelid 278 were related to Early Iron Age communities who, contemporaneously AD500 to AD900, settled further towards the east in the Lydenburg Valley (Pistorius 2005a). One of the settlements belonging to the Early Iron Age Lydenburg culture won international acclaim as the Lydenburg clay masks were discovered at this site near the Sterkspruit, south of Lydenburg (Inskeep 1978, Whitelaw 1996).

The historical period in the Steelpoort Valley is associated with the second millennium AD when a predominantly Northern Sotho-speaking population occupied the Steelpoort. These people are part of a larger Northern Sotho-speaking community who occupy a vast area between the Limpopo River in the north, the Drakensberg in the east and the Sekhukhune Mountains in the west. Numerous divisions and groups or clans therefore occupy this vast region. The history of the people of this area can be divided into several periods (Mönnig 1978; Delius 1984, 2007):

The earliest period of settlement is characterized by small groups of Bantu people who started to drive the San and Khoi Khoi from the area and who are difficult to identify. From approximately AD1700 ancestral groupings of the present inhabitants of the land began to arrive in the area. Groups that can be distinguished include:

- A large group of Sotho who came from the north-eastern parts of the Lowveld and who settled on the plateau to the north and to the south of the Strydpoortberge.
- Small groups of Kgatla and Huruthshe-Kwena origin moved from the Tswana area (Brits and Rustenburg) into the territory. Amongst them were the present Pedi (or Rota) who moved into what is now Sekhukhuneland, where they subjected the Sotho already living there.
- During these times Sekhukhuneland was also penetrated by Sotho arriving from the south-east.
- After AD1600 the Northern Ndebele arrived from the south-east and settled in what is now the Mokerong district.

It is assumed that during the period from AD1700 to AD1826 the Pedi took political control over the territory previously known as Lebowa, but to the south of the Strydpoortberge. The Pedi chiefdom reached its zenith during the reign of Thulare who died in 1824.

During the disruption of the *difaqane* (AD1822 to AD1828) Mzilikazi attacked the Pedi from the south-east in 1826 and in 1827/1828. This caused large-scale

depopulation of the southern part of the Northern-Sotho territory. The Pedi sought refuge in the Soutpansberg in 1822 and only returned in 1828.

After the wars with Mzilikazi there were wars with the Swazi. The Voortrekkers arrived in the Steelpoort area in the late 1840's. Several armed struggles between the Voortrekkers and the Pedi ensued.

5.3 The Historical Period

After the British annexed the Transvaal (AD1877 to AD1881) the Pedi was subjugated by the British who were supported by the Swazi during the war of Sekhukhune in 1879 (see more detail below).

In 1842 Andries Hendrik Potgieter wished to move from the British sphere of influence and to establish trade relations with Delagoa Bay. He moved with his followers from Potchefstroom to the Eastern Transvaal and founded Andries Ohrigstad (named after himself and Gergios Gerhardus Ohrig, a merchant from Amsterdam who was well disposed towards the Voortrekkers). The name was later abbreviated to Ohrigstad. The town also served as the seat of the Volksraad (Erasmus 1995).

During 1848 to 1849 Ohrigstad was abandoned when many people died of malaria. The town of Lydenburg was founded further to the south near the confluence of the Sterkspruit and the Spekboom River. This area was located on higher ground and was therefore healthier than Ohrigstad.

The railway line between Steelpoort and Lydenburg was constructed in 1924 due to an increase in the mining of chrome and magnetite. The name Steelpoort is derived from a hunting expedition that took place either in the late 19th century or the early 20th century. When a group of Voortrekkers from Natal under Frans Joubert had settled there, a man called Scholtz shot an elephant at dusk and on returning next morning found that the tusks had been removed. When the wagons were searched, the tusks were found in the possession of a man called Botha, after which the farm Bothashoek was named. Because an elephant had been killed there, the poort was

named Olifantspoort. The river flowing through the poort was called Steelpoort River ('steel' meaning steal).

The Pedi were governed by Thulware until his death in 1824. His main village was Monganeng on the banks of the Tubatse River. His son, Sekwati, fled to the Soutpansberg in the north during the raids of Mzilikazi in 1822. He returned in 1828 and occupied the mountain fortress Phiring, his capital from where he united the Pedi.

The Pedi initially maintained good relations with the Voortrekkers who arrived in Ohrigstad from 1845. However, after a clash with Andries Hendrik Potgieter in 1852 Sekwati moved his capital to Thaba ya Mosego. Border disputes with the Zuid-Afrikaansche Republiek (ZAR) were settled in 1857 with an accord that stated that the Steelpoort River served as the border between Pedi land and the Lydenburg Republic.

Sekwati gave the Berlin Missionary Society permission to establish the Maandagshoek missionary station in Pedi territory. After Sekwati's death in 1861, his son Sekhukhune succeeded his father and also established his village at Thaba Mosego. He ordered the Berlin Missionary Society to discontinue their work and the mission station was burn down. Alexander Merensky, one of the missionaries, thereafter established the well-known Botšabelo missionary station at Middelburg.

The good relationship between the ZAR and the Pedi was gradually weakened. The period from 1876 to 1879 was one of conflict and war, first with the ZAR and then with the British who annexed the Transvaal in 1877. During the First Sekhukhune War in August 1876 the Voortrekkers attacked Thaba Mosego and partly destroyed the settlement.

The Second Sekhukhune War followed in November 1879 during which Sekhukhune was captured in the Mamatamageng cave and sent to prison in Pretoria. Two divisions attacked the Pedi. The main division, comprised of 3 000 whites and 2 500 black allies, attacked from the north-east. The Lydenburg division consist of 5 000 to

8 000 Swazi *impi*, 400 other black allies and 400 white soldiers who attacked from Burgersfort in the south. The Second Sekhukhune War is associated with the settlements of Thaba Mosego and Tšate, a new village established by Sekhukhune close to Thaba Mosego (Mönnig 1978; Delius 1984, 2007).

6 THE PHASE I HERITAGE IMPACT ASSESSMENT STUDY

The Phase I HIA study is now briefly discussed and illustrated with photographs. The following components of the Eskom Project are discussed, namely:

6.1 The proposed Tshatane Substation

Three options are proposed for the substation, namely Option 01, Option 02 and Option 03. Options 01 and 02 are located approximately five hundred meters from each other on the farm Parys 779KS. Option 03 is situated on the farm Eenzaam 811KS on the northern shoulder of a road near the foot of the Marolo Mountains.

Both Option 01 and Option 02 fall within the confines of agricultural fields which are currently productive. No heritage resources of significance were observed were these two options is planned.

Figure 4 – View from the west across agricultural plots on Parys 799KS were Option 01 and Option 02 for the proposed Tshatane Substation will be established. Both stands for the proposed substations fall within the confines of active agricultural fields or small demarcated plots of land (above).

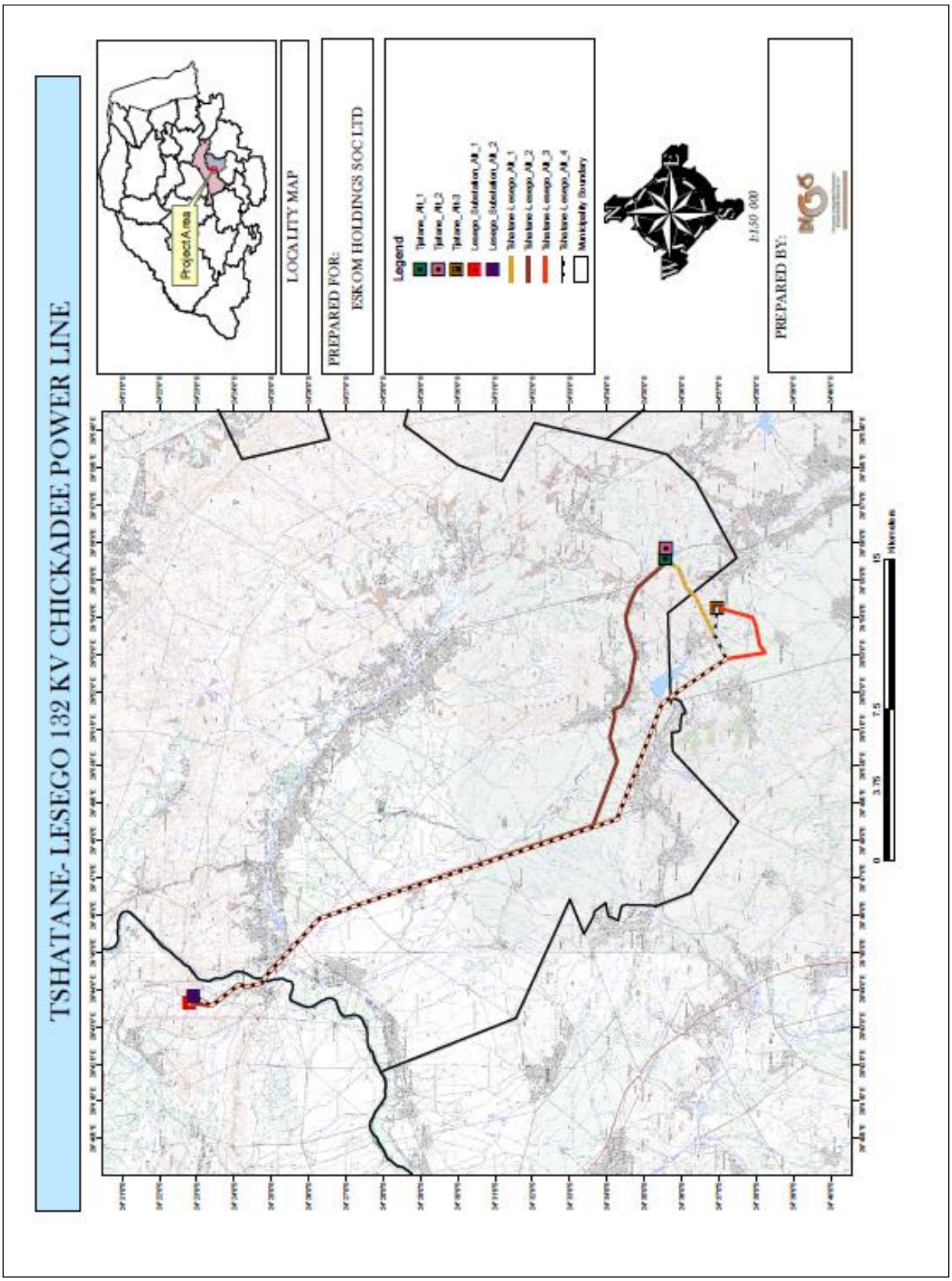
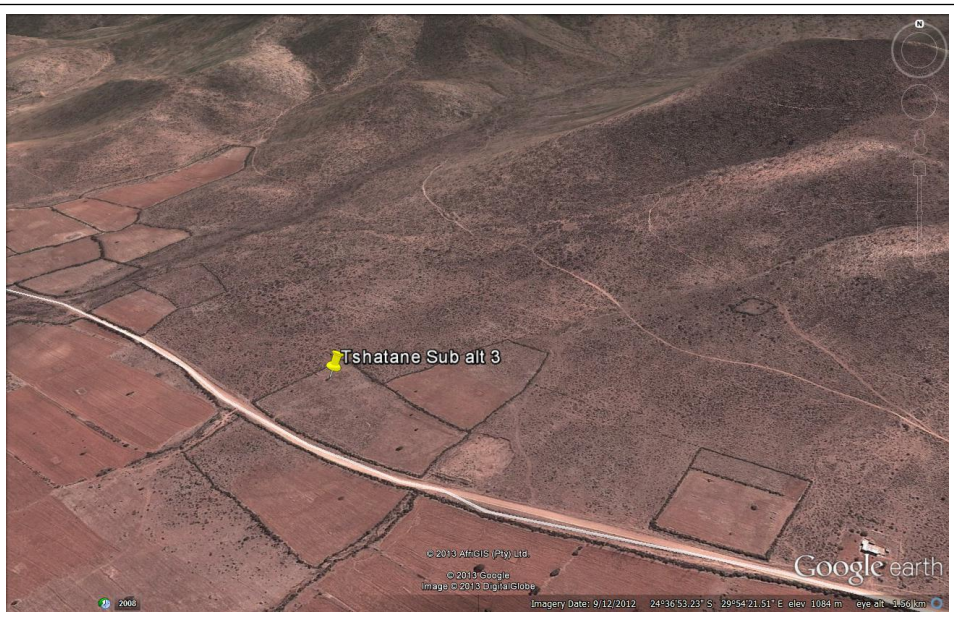


Figure 5 – The Eskom Project Area involving the proposed Tshatane Substation with the proposed 2x132kV power lines between the Tshatane and the proposed Lesego Substation in Sekhukhuneland in the Limpopo Province (above).

Figures 6 & 7– Agricultural plots on Parys 799KS and Eenzaam 811KS were Options 01, 02 and 03 for the proposed Tshatane Substation is located. All three plots are actively used for agriculture but were laying foul when the fieldwork was done (above and below).



6.2 The power line between Tshatane and Lesego

Four options are proposed for the 132kV power lines which will run between the Tshatane and Lesego Substations. Stretches of these four options overlap with each other, namely:

6.2.1 Option 01 (and Option 04)

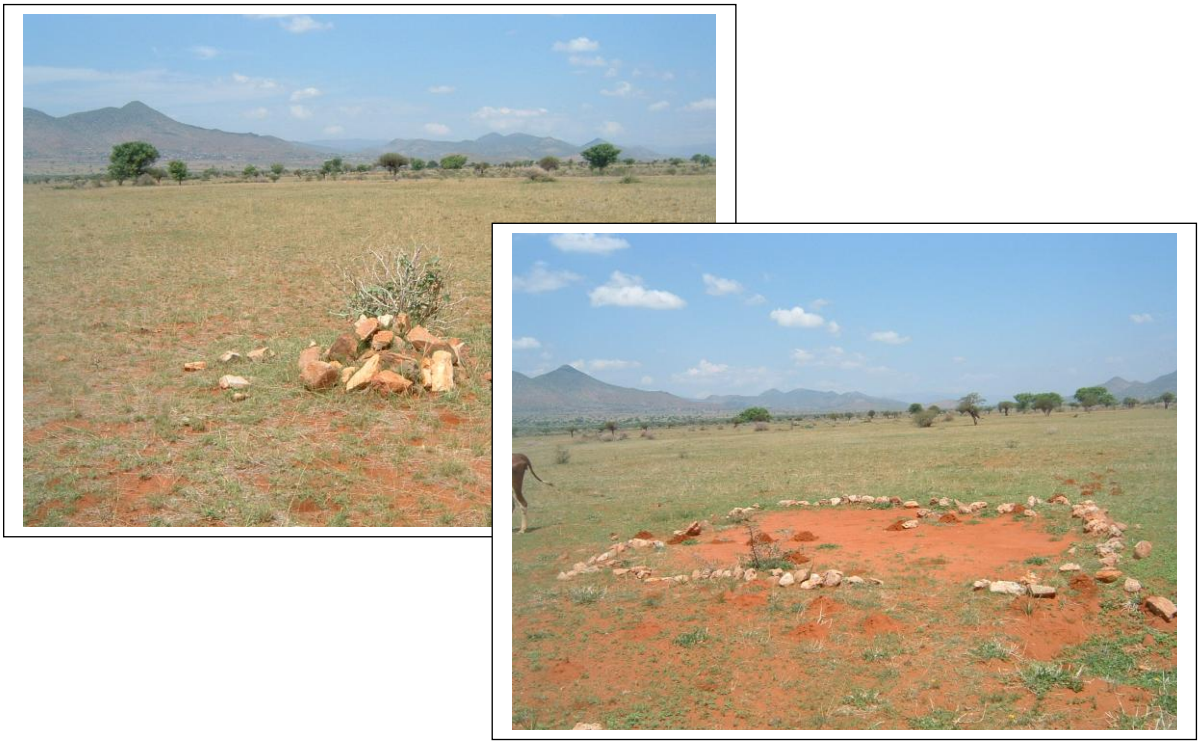
This option runs along the following main stretches, namely:

- Option 01 runs from the Tshatane Substation on Parys 779KS south-westwards across Geluk and through a mountain range to the eastern outskirts of the village of Ga-Maja.
- From the south-eastern outskirts of Ga-Maja Option 01 joins Option 04 so that Option 01 and Option 04 henceforth follow a similar route to the Lesego Substation. These Options are also joined by Options 02 and Option 03 at different intersections along the route. This route runs as follows:
- On the south-eastern outskirts of Ga-Maja Option 01 turns to the north-west and runs across Geluk to the village of Mamphahlane where it bends to the north-west following the outer perimeters of villages such as Marulaneng and Ga-Kgaphela.
- At Kgaphela Option 01 turns to the north and follow the shoulder of the road between Ga-Kgapela and Ga-Modupi north-eastwards across farms such as Middelin 538KS, Eerste Recht 802KS and Olifantspoort 479KS.
- Option 01 crosses the Olifants and the Mohlaletsi Rivers before reaching the Lesego Substation which will be established on the farm Spelonk 478KS.

<u>Remains from the recent past: piles of stone</u>

A number of stone piles which were collected when agricultural fields were cleared and some remains of dwellings from the recent past occur along the eastern shoulder of the road that runs between Ga-Kgaphela and Ga-Modupi. These remains occur more or less in the vicinity where Option 01, Option 02, Option 03 and Option 04 for the proposed 132kV Tshatane-Lesego power line will be established.

Figure 8 – View along the road running to Ga-Mankopane (Ga-Modupi). All four options for the proposed 132kV Tshatane-Lesego power lines follow the eastern shoulder (to the right) of the dirt road (above).



Figures 9 & 10– A number of stone piles and remains of foundations of dwellings from the recent past occur along the road between Ga-Kgaphela and Ga-Mankopane (Ga-Modupi). These stone piles were collected when agricultural fields were cleared before being planted (above).

6.2.2 Option 02

Option 02 runs from the Tshatane Substation on Parys 779KS along the following main stretches, namely:

- The first stretch runs along the shoulder of the road that runs between Tshatane and Mohlaletsi.
- The middle part of Option 02 then runs north-westwards between the Phepane mountain range following mountains with names such as Magaragareng, Petsang, Nalaneng, Marokolong and finally through the village of Ga Radingwana which is located to the north of the Lepellane Dam.

Figure 11- Option 02 for the proposed 132kV Tshatane-Lesego power lines runs between the mountains of Magaragareng, Petsang, Nalaneng and Marokolong (background) through the village of Ga-Radingwana which is located on the northern banks of the Lepellane Dam (above).

- The penultimate stretch for Option 02 runs westwards across Geluk to join the road that runs between Ga-Kgaphela and Ga- Mankopane (Ga-Modupi).
- From the joining point at this road Option 02 follows a similar corridor than Options 01 and 04 to the proposed Lesego Substation.

6.2.3 Option 03

Option 03 runs from the proposed Tshatane Substation (Option 03) southwards across Eenzaam 811KS and crosses the Ga-Maya and Sebitse road to run to the south-western corner of Ga-Maya. From here Option 03 follows a similar route than Option 01 and Option 04 and eventually also joins Option 02 in order to run to the Lesego Substation.

6.3 The proposed Lesego Substation

Option 01 and Option 02 for the proposed Lesego Substation are located next to each other on the farm Spelonk 478KS.

Figures 12 & 13- Option 01 and Option 02 for the proposed Lesego Substation are located between a dirt road and a small kopje (above) on Spelonk 478KS. The survey for the substations sites was restricted due to the presence of dense

sickle bush across both sites (below). The two sites were surveyed where bare patches in the sickle bush allow for the pedestrian survey to take place.

6.4 The power lines between Tshatane and Jane Furse

Four options are proposed for the 132kV power line running between the proposed Tshatane Substation and the existing Jane Furse Substation.

6.4.1 Option 01 (and Option 04)

Option 01 runs along the following main stretches, namely:

- The first stretch runs south-eastwards from the proposed Tshatane Substation across Parys 779KS and bends several times in different directions before running through the Phebane mountain range on Eenzaam 811KS before joining Option 03 for the proposed Tshatane Substation.
- Option 04 for the proposed Tshatane to Jane Furse power line commences (with Option 01) at Option 03 for the proposed Tshatane Substation. From here Option 04 follows a similar route as Option 01 only to depart from Option 01 along the shoulder of the Monganeng/Seuwe road where Option 03 and Option 04 travel together in a southerly direction to the Jane Furse Substation.
- The second main stretch for Option 01 runs to the south-east across Eenzaam 811KS and then bends to the south on Groenland 813 KS.

Figure 14- Options 01 and 03 for the proposed 132kV Tshatane-Jane Furse power lines run across active and abandoned agricultural plots on Geluk (above).

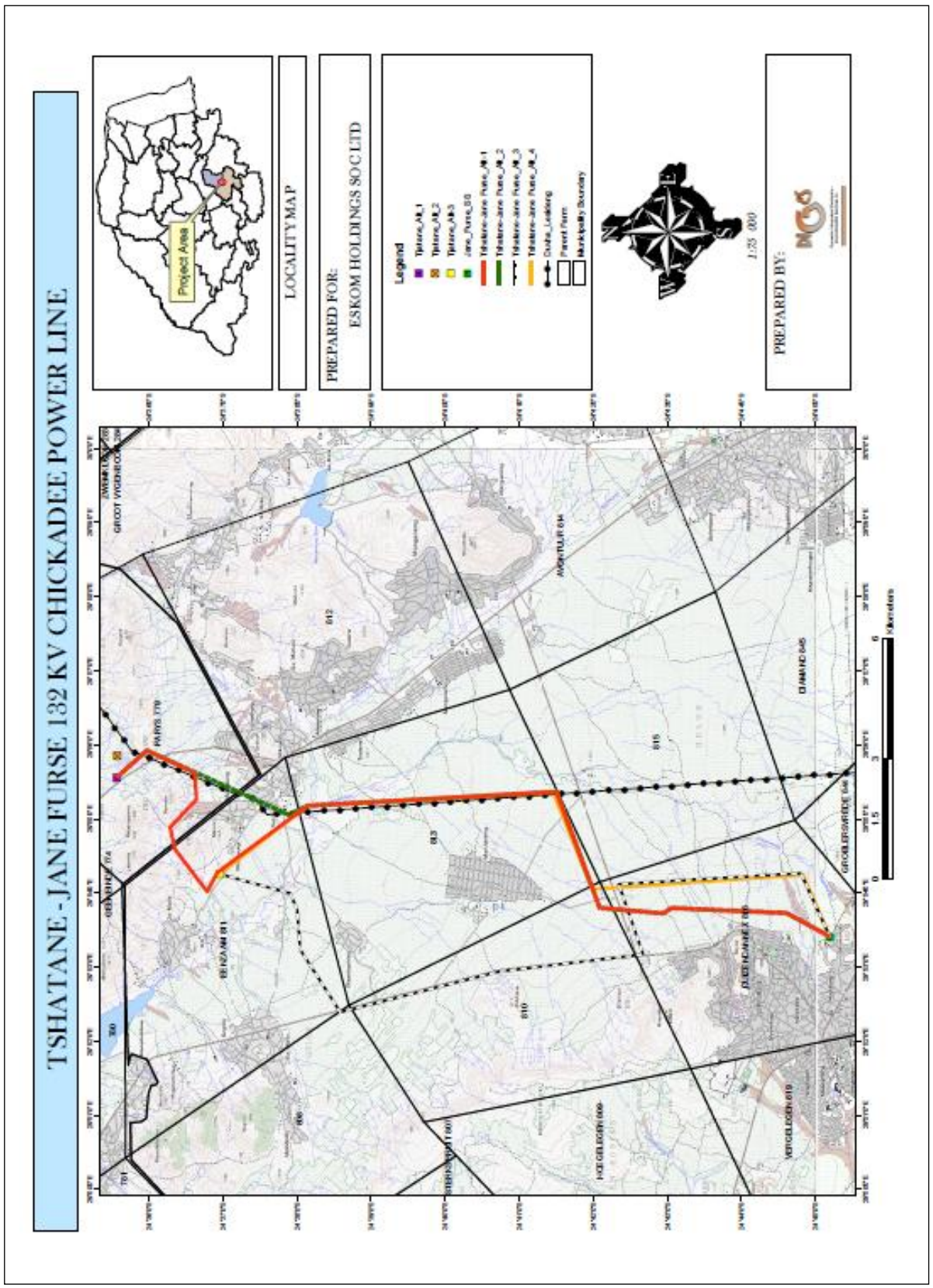


Figure 15 – The Eskom Project Area involving the proposed Tshatane Substation with the proposed 2x132kV power lines between the Tshatane and the existing Jane Furse Substation in Sekhukhuneland in the Limpopo Province (above).

Figures 16 & 17– Options 01 and 03 for the proposed 132kV Tshatane-Jane Furse power lines run across active and abandoned agricultural plots on Geluk 815KS (above).

- Option 01 follows the shoulder of the Manganeng/Seuwe road westwards and then bends southwards and westwards along the eastern border of the village of Madibone in order to run to the existing Jane Furse Substation.

6.4.2 Option 02

Option 2 follows a similar route than Option 01 except that this option runs from the proposed Tshatane Substation on Parys 779KS south-westwards across Groenland 813 KS and through the village of Mathibang. Here, Option 02 joins the long southern stretch which Option 01 follows to the existing Jane Furse Substation.

6.4.3 Option 03

This option runs along the following stretches, namely:

- This option runs from Option 03 for the proposed Tshatane Substation south-westwards across the road which runs between Ga-Maila and Malegale and then further westwards to the road that runs between Ga-Maile and Jane Furse.
- The second and longest stretch runs southwards along the western shoulder of this road before bending to the east following the southern shoulder of the road that runs between Seuwe and Manganeng for approximately two kilometres.
- The penultimate and last stretches for Option 04 bends to the south following Option 03 in a southerly direction before bending the south-west in order to run to the Jane Furse Substation.

Figures 18 & 19- The penultimate and last stretches for Option 03 and Option 04 for the proposed 132kV Tshatane-Jane Furse power line run from the dirt road between Seuwe and Manganeng to the Jane Furse Substation crossing a low magnetite outcrop on Groenland 813 KS (background) (above and below).

6.5 Table

Table outlining remains in the Project Area (also note coordinates and level of significance):

Piles of stone	Coordinates	Significance
Pile of stones	24º 33.724's 29º 48.508'e	Low
Pile of stones	24º 33 39.47's 29º 48 29.18'e	Low

Table 1- Coordinates for remains from the recent past comprising piles of stone which was collected when agricultural fields were cleared (above).

6.6 Summary

Although remains of possible dwellings and a number of small stones piles (probably collected when agricultural fields were cleared) were observed along Option 01, 02, 03 and Option 04 for the proposed 132kV power line between Tshatane and Lesego these remains are considered to be of low significance.

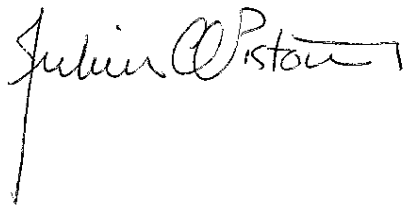
7 CONCLUSION AND RECOMMENDATIONS

No heritage resources as those listed in Section 3 of the National Heritage Resources Act (No 25 of 1999) were observed in the Eskom Project Area. Although remains of possible dwellings and a number of small stones piles (collected when agricultural fields were cleared) were observed along Option 01, 02, 03 and 04 for the proposed 132kV power lines between Tshatane and Lesego these remains are considered to be of low significance. The stones were probably collected when the veld was cleared in preparation of being utilised as agricultural fields.

There is consequently no reason from a heritage point of view why any of the options for the proposed Tshatane Substation or for the proposed Lesego Substation could not be used for the development of these substations. There is also no reason from a heritage point of view why any of the options for the proposed 132kV Tshatane-Lesego power line or the proposed 132kv Tshatane-Jane Furse power lines cannot be constructed by Eskom.

It is possible that this Phase I HIA study may have missed heritage resources in the Eskom 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 Eskom 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 authorization (permits) from SAHRA to conduct the mitigation measures.



DR JULIUS CC PISTORIUS

Archaeologist and Heritage Consultant

Member ASAPA

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APPENDIX A: DETAILS OF THE SPECIALIST

Profession: Archaeologist, Museologist (Museum Scientists), Lecturer, Heritage Guide Trainer and Heritage Consultant

Qualifications:

BA (Archaeology, Anthropology and Psychology) (UP, 1976)

BA (Hons) Archaeology (distinction) (UP, 1979)

MA Archaeology (distinction) (UP, 1985)

D Phil Archaeology (UP, 1989)

Post Graduate Diploma in Museology (Museum Sciences) (UP, 1981)

Work experience:

Museum curator and archaeologist for the Rustenburg and Phalaborwa Town Councils (1980-1984)

Head of the Department of Archaeology, National Cultural History Museum in Pretoria (1988-1989)

Lecturer and Senior lecturer Department of Anthropology and Archaeology, University of Pretoria (1990-2003)

Independent Archaeologist and Heritage Consultant (2003-)

Accreditation: Member of the Association for Southern African Professional Archaeologists. (ASAPA)

Summary: Julius Pistorius is a qualified archaeologist and heritage specialist with extensive experience as a university lecturer, museum scientist, researcher and heritage consultant. His research focussed on the Late Iron Age Tswana and Lowveld-Sotho (particularly the Bamalatji of Phalaborwa). He has published a book on early Tswana settlement in the North-West Province and has completed an unpublished manuscript on the rise of Bamalatji metal workings spheres in Phalaborwa during the last 1 200 years. He has written a guide for Eskom's field personnel on heritage management. He has published twenty scientific papers in academic journals and several popular articles on archaeology and heritage matters. He collaborated with environmental companies in compiling State of the Environmental Reports for Ekhurhuleni, Hartebeespoort and heritage management plans for the Magaliesberg and Waterberg. Since acting as an independent consultant he has done approximately 800 large to small heritage impact assessment reports. He has a longstanding working relationship with Eskom, Rio Tinto (PMC), Rio Tinto (EXP), Impala Platinum, Angloplats (Rustenburg), Lonmin, Sasol, PMC, Foskor, Kudu and Kelgran Granite, Bafokeng Royal Resources etc. as well as with several environmental companies.

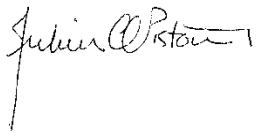
APPENDIX B: DECLARATION OF INDEPENDENCE

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;
•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

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Name of company:
5 January 2012

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Date:

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Signature of the Commissioner of Oaths:

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Date:

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Designation: