

Heritage Impact Assessment

Heritage Impact Assessment for the new Power Line at the
Residential Development at Phidima Village north of
Burgersfort, Limpopo Province.

Compiled for:

Tekplan Environmental

Survey conducted & Report compiled by:

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Executive Summary

Site name and location: New power line at the new development at Phidima village approximately 20km north of Burgersfort in the Limpopo Province.

Local Authority: Sekhukhune District Municipality.

Developer: The Greater Tubatse Local Municipality.

Date of field work: 16 March 2013.

Date of report: March 2013.

Findings: The area where the power line was situated was mostly undisturbed except for sections where previous agricultural activities such as ploughing and planting were performed.

No further site-specific actions or any further heritage mitigation measures are recommended as no sites or finds with heritage value or significance were identified in the indicated study area.

The proposed connection of the power line to the existing ESKOM grid at the indicated area can continue from a heritage point of view.

Disclaimer: *Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. Hutten Heritage Consultants and its personnel will not be held liable for such oversights or for costs incurred as a result of such oversights.*

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ADDENDUM A Photographs

Photo 1: View of the new development at Phidima village.

Photo 2: View of the power line from the south.

Photo 3: View of the power line next to the main gravel road.

Photo 4: View of the power line from the north.

ADDENDUM B Location Maps

1. Introduction

Hutten Heritage Consultants was contracted by TEKPLAN ENVIRONMENTAL to conduct a Heritage Impact Assessment (HIA) on the new power line at the new residential development at Phidima village, approximately 20km north of Burgersfort in the Limpopo Province.

The aim of the study was to identify all heritage sites, to document and to assess their significance within Local, Provincial and National context. The report outlines the approach and methodology implemented before and during the survey, which includes in Phase 1: Information collection from various sources and social consultations; Phase 2: Physical surveying of the area on foot and by vehicle; and Phase 3: Reporting the outcome of the study.

This HIA forms part of the Environmental Impact Assessment (EIA) as required by various Acts and Laws as described under the next heading and is intended for submission to the provincial South African Heritage Resources Agency (SAHRA) for peer review.

Minimum standards for reports, site documentation and descriptions are set by the Association of Southern African Professional Archaeologists (ASAPA) in collaboration with SAHRA. ASAPA is a legal body representing professional archaeology in the Southern African Development Community (SADC) region. As a member of ASAPA, these standards are tried to be adhered to.

The extent of the proposed development sites were determined as well as the extent of the areas to be affected by secondary activities (access routes, construction camps, etc.) during the development.

2. Legislative Requirements

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

National Environmental Management Act (NEMA) Act 107 of 1998

National Heritage Resources Act (NHRA) Act 25 of 1999

Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002

Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

National Environmental Management Act (NEMA) Act 107 of 1998

Basic Environmental Assessment (BEA) – Section (23)(2)(d)

Environmental Scoping Report (ESR) – Section (29)(1)(d)

Environmental Impacts Assessment (EIA) – Section (32)(2)(d)

Environmental Management Plan (EMP) – Section (34)(b)

National Heritage Resources Act (NHRA) Act 25 of 1999

Protection of Heritage resources – Sections 34 to 36; and

Heritage Resources Management – Section 38
Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
Section 39(3)
Development Facilitation Act (DFA) Act 67 of 1995
The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31

3. Proposed Project

Lindile Mteza & Associates has requested, through Tekplan Environmental, a Heritage Impact Assessment as part of the Environmental Screening Report (DESD) for the new power line at the new residential development at Phidima village, approximately 20km north of Burgersfort in the Limpopo Province.

The Environmental Screening Report (DESD) is required before ESKOM will finalise the electricity connection to the new residential development at Phidima village. The power line was already in place and will connect the new residential development with 26 developed erven to the existing ESKOM grid. The new power line was approximately 800m in length and was situated next to and parallel to the main gravel road to Phidima village.

The purpose of the study was to determine if the development of the power line adversely affected any possible sites or finds of value or significance from a heritage point of view.

The project was tabled during February 2013 and the developer intends to commence as soon as possible after receipt of the ROD from the Department of Environmental Affairs.

4. Project Area Description

The new power line was situated at the new development (Photo 1) at Phidima village approximately 20km north of Burgersfort in the Limpopo Province.

The power line (Photo 2) was approximately 800m in length and will connect the new residential development to the existing ESKOM grid. The power line was straight and was situated parallel and approximately 30m east of the main gravel road to Phidima village (Photo 3).

The area sloped gently up to the north where the new residential development was situated and down to the east (Photo 4). It was also very rocky with typical vegetation of that area. Some parts of the area were previously exposed to agricultural activities such as ploughing and the planting of crops. Currently no crops are being cultivated in this area and it is used for the grazing of cattle and other animals.

The development was situated on the Farm Edenvale 124 KT. The development was also situated on the Moroke 2430 AC and Penge 2430 AD 1:50 000 topographical maps (See Appendix B: Location Maps).

5. Archaeological History of the Area

The examination of heritage databases, historical data and cartographic resources represents a critical additional tool for locating and identifying heritage resources and in determining the historical and cultural context of the study area. Therefore an internet literature search was conducted and relevant archaeological and historical texts were also consulted. Relevant topographic maps and satellite imagery were studied. Researching the SAHRA APM Report Mapping Project records and the SAHRIS online database (<http://www.sahra.org.za/sahris>), it was determined that no studies had previously been carried out within the current study area although a number of previous archaeological or historical studies had been performed over the wider vicinity.

Previous Studies

A large number of previous studies are listed for the wider vicinity in the SAHRIS online database (<http://www.sahra.org.za/sahris>) including the APM Report Mapping Project. Within Quarter Degree Squares 2430AC, 2430AD, 2430CA & 2430CB these included (arranged by date):

Huffman, T.N., 2000. **Archaeological Survey of the Lebalelo Pipeline Sukhukhuneland.** An unpublished report by Archaeological Resources Management on file at SAHRA as 2000-SAHRA-0070.

Van Schalkwyk, J.A., 2001a. **A Survey of Cultural Resources in Five Locations of the Steelpoort Area of Sekhukhuneland, Northern Province.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2001-SAHRA-0041.

Huffman, T.N. & Schoeman, M.H., 2001. **Scoping Study for the Proposed Access Road to Planned Winnaarshoek Mine.** An unpublished report by Archaeological Resources Management on file at SAHRA as 2001-SAHRA-0046.

Van Schalkwyk, J.A., 2001b. **A Survey of Cultural Resources in the New Bridge Location Penge Area Sekhukhuneland.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2001-SAHRA-0063.

Van Schalkwyk, J.A., 2001c. **A Survey of Cultural Resources in Segorong Village, Penge Area, Sekhukhuneland, Northern Province.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2001-SAHRA-0076.

Van Schalkwyk, J.A., 2001d. **Identification and Listing of Graves in Segorong Village, Penge Area, Sekhukhuneland, Northern Province.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2001-SAHRA-0092.

Van Schalkwyk, J.A., 2001e. **Penge Borrow Pits: Archaeological Survey.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2001-SAHRA-0127.

Van Schalkwyk, J.A., 2002a. **A Survey of Cultural Resources in the Proposed Host Areas of the Twickenham-Hackney-Paschaskraal-Mining Development Report.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2002-SAHRA-0010

Van Schalkwyk, J.A. 2002b. **A Survey of Cultural Resources for the Borrow-Pit on the Farm Hackney, Sekhukhune District, Limpopo Province.** An unpublished report by the National Cultural History Museum on file at SAHRA as 2002-SAHRA-0045.

Roodt, F., 2002. **Phase 1 Archaeological Impact Assessment (Scoping) Tubatse Water Supply.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2002-SAHRA-0052.

Roodt, F., 2003. **Phase 1 Heritage Impact Assessment Samancor Chrome: Lwala Open Cast Mine Limpopo Province.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2003-SAHRA-0008.

Birkholtz, P.D., 2005. **Phase 1 Heritage Impact Assessment, Motaganeng Project on Portions of the Farm Aapiendoordraai 298 KT.** An unpublished report by Archaeology Africa CC on file at SAHRA as 2005-SAHRA-0157.

Pistorius, J.C.C., 2005. **An Assessment of the Heritage Potential for a Proposed New Route for a 132 kV Power Line Between the Merensky Substation and the Proposed New Burgersfort Substation in the Mpumalanga and Limpopo Provinces of South Africa.** An unpublished report by Archaeologist and Cultural Heritage Management Consultants on file at SAHRA as 2005-SAHRA-0289.

Murimbika, M., 2006. **Archaeological Impact Assessment Study for the Proposed Construction of Electricity Distribution Powerlines Within, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as 2006-SAHRA-0354.

Roodt, F., 2006. **Phase 1 Heritage Resources Impact Assessment Report Chromex Mining Pty Ltd Proposed Development of a New Mine on the Farm Mecklenburg 112 KT Greater Sekhukhune District Municipality Limpopo Province.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2006-SAHRA-0404.

Fourie, W. & van der Walt, J., 2006. **Heritage Impact Assessment: Modulakgogo Eco Estate Mooifontein 313 KT, Tubatse Municipality, Limpopo Province.** An unpublished report by Matakoma Heritage Consultants (Pty) Ltd on file at SAHRA as 2006-SAHRA-0417.

Gaigher, S., 2007. **Heritage Impact Assessment for the Proposed Mooihoek, Burgersfort Bulk Water Supply Phase 2.1 and 2.2 Project, Limpopo.** An unpublished report by Archaeo-Info on file at SAHRA as 2007-SAHRA-0352.

Gaigher, S., 2007. **Exemption of the Following Proposed Vodacom Base Stations and Masts from Full Heritage Impact Assessment Investigation, Riverscross, Burgersfort Town and Van Collerspas.** An unpublished report by Archaeo-Info on file at SAHRA as 2007-SAHRA-0441.

Munyai, R. & Roodt, F., 2007. **An Archaeological Impact Assessment Study for Three Existing Borrow Pit Sites Earmarked for Extracting of Gravel Material Associated with the Upgrading of Road D3899 from Tickline-Sophia.** An unpublished report by Vhufa Hashu Heritage Consultants on file at SAHRA as 2007-SAHRA-0203.

Fourie, W., 2008. **Archaeological Impact Assessment the Proposed 25 km New 132 kV Bersfort Line from Leseding Mountains to Dilokong Substation, Burgersfort, Limpopo Province.** An unpublished report by Matakoma-ARM Heritage Contracts Unit on file at SAHRA as 2008-SAHRA-0104.

Hutten, M., 2008. **Heritage Impact Assessment for the Proposed Groothoek Residential and Industrial Development North-West of Burgersfort, Limpopo Province.** An unpublished report by Archaeo-Info on file at SAHRA as 2008-SAHRA-0385.

Pelser, A.J. & van Vollenhoven, A.C., 2008. **A Report on a Cultural Heritage Impact Assessment on Portion 14 of the Farm Sterkfontein 318 KT, Burgersfort/Steelpoort Area, Limpopo.** An unpublished report by Archaeo-Info on file at SAHRA as 2008-SAHRA-0507.

Roodt, F., 2008. **Phase 1 Heritage Resources Scoping Report: Burgersfort Extension 65 and 74 Burgersfort, Mpumalanga.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2008-SAHRA-0509.

Roodt, F., 2008. **Phase 1 Heritage Resource Scoping Report: Residential Demarcation Tubatse A Extension 7, Burgersfort, Limpopo.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as 2008-SAHRA-0612.

Hutten, M., 2009. **Heritage Impact Assessment for the Proposed Residential Township on the farm Leeuwvallei at Burgersfort, Limpopo Province.** An unpublished report by Hutten Heritage Consultants compiled for Africa Geo-Environmental Services.

Some of the studies listed above located a number of heritage sites of various categories whereas others did not locate any heritage sites or artefacts (e.g. Van Schalkwyk 2001e; Murimbika 2006; Munyai & Roodt 2007). Some of the studies had incomplete reports scanned to the SAHRIS database (e.g. Van Schalkwyk 2001b) or no reports attached (e.g. Fourie 2008).

Some 15 km north-west of the current study area Huffman (2000) located three Middle Stone age sites characterised by surface scatterings of artefacts in some concentration while Van Schalkwyk (2001c) found both Early- and Middle Stone Age material 5 km to the north of the study area as well as a scatterings of lithics to the south west of the study area (Van Schalkwyk 2001a) as did other studies (e.g. Huffman & Schoeman 2001; Roodt 2003). Van Schalkwyk (2002b) noted rich Middle and Late Stone Age archaeology in another survey to the west of the study area remarking that artefacts are found all over but mostly in erosional features and out of context.

An Early Iron Age site (ca. 500-700 AD) was exposed during the excavation of a trench some 14 km west of the study area and up to seven ancient storage pits containing ash, pottery and cattle dung were visible in the sides of the excavation (Huffman & Schoeman 2001). Roodt (2006) surveyed an area approximately 20 km to the north-west of the study area and noted that ceramic pottery from the Early- and Middle Iron Ages was scattered over the entire terrain including pottery from the Doornkop and Eiland facies. Roodt (2003) found similar Doornkop Early Iron Age sites as well as Klingbeil facies sites and Eiland Middle Iron Age sites in a survey 15 km south west of the current study area. He described the Early Iron Age sites as being of high academic value with regard to village layout, pottery classification and artefact collection and being characterised by cattle enclosures, middens, pottery, metal working debris, ostrich eggshell beads and grinding stones. He also located in-situ grinding hollows likely associated with the Early Iron Age settlements (Roodt 2003).

To the north of the study area Van Schalkwyk (2001c) mentioned the existence of a historical structure dating to the 1920s and the grave of a traditional leader while in a subsequent survey of the same vicinity Van Schalkwyk (2001d) located a large number of contemporary graves, a total of 572 in 111 locations. To the south-west another historical structure, an old Lutheran church can be found on the farm Mecklenburg (Van Schalkwyk 2001a) and other studies reported the presence of quite a number of historic period graves (e.g. Hutten 2008), late Pedi settlements characterised by grindstones (Van Schalkwyk 2001c; Huffman & Schoeman 2001; Hutten 2008), pottery and occasional grainbin foundations (Huffman & Schoeman 2001). The presence of historical graves was remarked upon by a number of other studies in the area, for example to the northwest of the current study area (Roodt 2003).

The historical background and timeframe of the study area and other areas in Southern Africa can be divided into the Stone Age, Iron Age and Historical period as follows:

Stone Age sites

The Stone Age is divided into the Early; Middle and Late Stone Age. The *Early Stone Age* (ESA) includes the period from 2.5 million years B.P. to 250 000 years B.P. and is associated with Australopithecines and early *Homo* species who practiced stone tool industries such as the Oldowan and Acheullian. The *Middle Stone Age* (MSA) covers various tool industries, for example the Howiesons Poort industry, in the period from 250 000 years B.P. to 25 000 years B.P. and is associated with archaic and modern *Homo sapiens*. The *Late Stone Age* (LSA) incorporates the period from 25 000 years B.P. up to

the Iron Age and Historical Periods and contact between hunter-gatherers and Iron Age farmers or European colonists. This period is associated with modern humans and characterised by lithic tool industries such as Smithfield and Robberg.

Excavations at several well known sites in the region attest to ESA occupation, for example at Makapansgat to the north-west of the study area which provided evidence of long occupation, initially by *Australopithecus africanus* from approximately 3.3 million years B.P. (Bergh 1999). Bushman Rock Shelter, some 30 km to the south-east of the study site has yielded evidence of a long history of occupation characteristic of the MSA and subsequently the LSA and dating from circa 13,000 B.P. to 8,500 B.P. (Plug 1981). Rock paintings at this site are further evidence of LSA occupation of the area (Louw 1969).

Iron Age

The Iron Age incorporates the arrival and settlement of Bantu speaking people and overlaps the Pre-Historic and Historical Periods. It can be divided into three phases. The *Early Iron Age* includes the majority of the first millennium A.D. and is characterised by traditions such as Happy Rest and Silver Leaves. The *Middle Iron Age* spans the 10th to the 13th Centuries A.D. and includes such well known cultures as those at K2 and Mapungubwe. The *Late Iron Age* is taken to stretch from the 14th Century up to the colonial period and includes traditions such as Icon and Letaba.

A 1968 survey of aerial photographs by Mason documented the presence of 1 792 Iron Age settlements in the drainage basins of the Steelpoort, Sabi, Crocodile and Komati rivers although the modification of the techniques used indicated that this was likely an underestimate (Evers 1975). The well known site at Sterkspruit near Lydenburg yielded the Lydenburg Heads dated to the Early Iron Age of 500 A.D. (Von Bezing & Inskeep 1966). Evers (1975) presents archaeological and anthropological evidence for the contemporaneity of both Early Iron Age and second millennium Iron Age sites on the Escarpment and in the lowveld. Lowveld sites such as Harmony and Eiland contain Lydenburg ceramics and equally the site at Sterkspruit has typical lowveld Early Iron Age ceramics (Evers 1975).

Late Iron Age peoples and the Historical Period

The beginning of the Historical Period overlaps the demise of the late Stone and Iron Ages and is characterised by the first written accounts of the region from 1600 A.D. A number Late Iron Age peoples were settled in the wider region at the beginning of the nineteenth century including the Pedi, Roka, Koni and Tau (Bergh 1999). According to Schoeman (1997), when the BaPedi settled in the Sekhukhuneland region (their heartland being located in the area between the Olifants and Steelpoort Rivers) during the second half of the 17th century they encountered a number of groups such as the Kwena, Roka, Koni and Tau who had preceded them. The 1820s saw the arrival of the Khumalo Ndebele of Mzilikazi in the region and during their short residence in the area they attacked the Koni of Makopole in the vicinity of present-day Lydenburg, before attacking the BaPedi of Maroteng during 1822 during which the Pedi paramount leader Phetedi as well as most of his brothers were killed. However, Sekwati, one of his brothers, managed

to escape northwards. Sekwati returned to the area in 1828 and settled at Phiring, from where he started to rebuild the Maroteng kingdom. (Bergh 1999).

The 1830's saw the arrival of voortrekkers in the area under the leadership of Andries Hendrik Potgieter and it is estimated that by August 1845 there were already a thousand settlers resident, precipitating the development of the town of Ohrigstad. As Ohrigstad developed the surrounding countryside was also increasingly settled and during the period between August 1845 and December 1847 406 farms were proclaimed, many of them along the Spekboom River from its source to the confluence with the Steelpoort River. However, Ohrigstad rapidly declined as a result of discord between the habitants, malaria and poor trade opportunities with Delagoa Bay and in 1849 the *Volksraad* in Potchefstroom decided that a new town, 'Leidenburg' was to be established in a more healthy area to the south (Bulpin 1958).

In July 1845 Potgieter had negotiated a settlement with Sekwati aimed at allowing settlers to establish farms. However, by August 1852, relations had so deteriorated that Potgieter led an unsuccessful commando against Sekwati. A peace agreement concluded between the Boers and Sekwati in 1857 did not last long and the 1860s and 1870s were characterized by land disputes and generally unfriendly relations which culminated in open warfare during the latter part of the 1870s. The role of Sekwati's successor Sekhukhune (who succeeded Sekwati in 1861) was very significant. On 16 May 1876, the *Volksraad* declared war on the BaPedi. After a number of successes, the Z.A.R. forces attacked Tshate, the new capital of Sekhukhune (Bergh, 1999). As the first attacks proved unsuccessful, the decision was made hold the line of the Steelpoort River against Sekhukhune and a fort was built within the junction of the Steelpoort and Spekboom Rivers which was named Fort Burgers, after President Burgers, after initially being referred to as Fort Steelpoort (Kinsey 1973a). The remains of Fort Burgers are approximately 8 km south west of the study area near the modern day town of Burgersfort. Although a peace agreement was signed on 16 February 1877, Sekhukhune was not in agreement with all of the provisions. The subsequent British annexation of the Transvaal in April of that year allowed Sekhukhune a measure of strategic space. Although negotiations were undertaken with the new British authorities, the relations between the British and the BaPedi eventually resulted in the outbreak of war which ended in the attack on Sekhukhune's capital Tshate on 28 November 1879. Although Sekhukhune managed to escape, he was captured on 2 December 1879, and imprisoned at Pretoria (Bergh, 1999). The war saw the pillaging of Fort Burgers (by the BaPedi and the establishment of a number of new forts in the area. One such fort was Fort Faugh-a-ballagh (approximately 30 km southeast of the study area), built of stone in 1878 to protect the Kromskloof pass to Ohrigstad (Kinsey 1973b). This fort and the pass it protects (the route of the 'ou voortrekkerpad') are indicated on the 2430 CB 1:50,000 topographical map.

6. Methodology

Physical Survey

The extent of the proposed development sites were determined as well as the extent of the areas to be affected by secondary activities (access route, construction camp, etc.) during the development.

The physical survey was conducted on foot over the entire area proposed for development. Priority was placed on the undisturbed areas. A systematic inspection of the area on foot along the power line resulted in the maximum coverage of the proposed area. The survey was conducted on March 16, 2013 and was performed by M. Hutten and field worker T. Mulaudzi.

No sampling was done as no sites or finds of heritage value or significance were found.

Interviews

Passersby and neighbouring residents were interviewed or questioned during the survey. These people indicated that they were not aware of anything of heritage value or significance (such as graves) at the indicated study area.

Restrictions

No restrictions were encountered during the survey.

Documentation

All sites/findspots located (if any) during the foot surveys were briefly documented. The documentation included digital photographs and descriptions as to the nature and condition of the site and recovered materials. The sites/findspots were plotted using a Global Positioning System (GPS) (Garmin GPSmap 60CSx) and numbered accordingly.

7. Assessment Criteria

This chapter describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites were based on the following criteria:

- The unique nature of a site
- The amount/depth of the archaeological deposit and the range of features (stone walls, activity areas etc.)
- The wider historic, archaeological and geographic context of the site
- The preservation condition and integrity of the site
- The potential to answer present research questions.

Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

<i>FIELD RATING</i>	<i>GRADE</i>	<i>SIGNIFICANCE</i>	<i>RECOMMENDED MITIGATION</i>
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected (GP.A)	Grade A 4A	High / Medium Significance	Mitigation before destruction
Generally Protected (GP.B)	Grade B 4B	Medium Significance	Recording before destruction
Generally Protected (GP.C)	Grade C 4C	Low Significance	Destruction

Impact Rating

VERY HIGH

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or cultural) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

Example: The loss of a species would be viewed by informed society as being of VERY HIGH significance.

Example: The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with a VERY HIGH significance.

HIGH

These impacts will usually result in long term effects on the social and /or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

Example: The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

Example: The change to soil conditions will impact the natural system, and the impact on affected parties (e.g. farmers) would be HIGH.

MODERATE

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by the public or the specialist as constituting a fairly unimportant and usually short term change to the (natural and/or social) environment. These impacts are real, but not substantial.

Example: The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

Example: The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

LOW

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by society as constituting a fairly important and usually medium term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

Example: The temporary changes in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.

Example: The increased earning potential of people employed as a result of a development would only result in benefits of LOW significance to people living some distance away.

NO SIGNIFICANCE

There are no primary or secondary effects at all that are important to scientists or the public.

Example: A change to the geology of a certain formation may be regarded as severe from a geological perspective, but is of NO SIGNIFICANCE in the overall context.

Certainty

DEFINITE: More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

PROBABLE: Over 70% sure of a particular fact, or of the likelihood of an impact occurring.

POSSIBLE: Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.

UNSURE: Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.

Duration

SHORT TERM: 0 – 5 years

MEDIUM: 6 – 20 years

LONG TERM: more than 20 years

DEMOLISHED: site will be demolished or is already demolished

Mitigation

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be classified as follows:

- **A** – No further action necessary
- **B** – Mapping of the site and controlled sampling required
- **C** – Preserve site, or extensive data collection and mapping required; and
- **D** – Preserve site

8. Assessment of Sites and Finds

This section will contain the results of the heritage site/find assessment.

Phidima Power Line

The new power line was situated at the new development at Phidima village approximately 20km north of Burgersfort in the Limpopo Province. The power line was approximately 800m in length and will connect the new residential development to the existing ESKOM grid. The power line was straight and was situated parallel and approximately 30m east of the main gravel road to Phidima village.

The area sloped gently up to the north where the new residential development was situated and down to the east. It was also very rocky with typical vegetation of that area. Some parts of the area were previously exposed to agricultural activities such as ploughing and the planting of crops. Currently no crops are being cultivated in this area and it is used for the grazing of cattle and other animals.

No sites or finds of any heritage value or significance were identified during the investigations.

Field Rating:	None
Heritage Significance:	None
Impact:	None
Certainty:	None
Duration:	None
Mitigation:	A – No further action necessary

9. Recommendations

The following steps and measures are recommended regarding the investigated area:

Phidima Power Line

- The area where the power line was situated was mostly undisturbed except for sections where previous agricultural activities such as ploughing and planting were performed.
- No further site-specific actions or any further heritage mitigation measures are recommended as no sites or finds with heritage value or significance were identified in the indicated study area.
- The proposed connection of the power line to the existing ESKOM grid at the indicated area can continue from a heritage point of view.

10. References

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APPENDIX A

Photographs



Photo 1: View of the new residential development at Phidima village.



Photo 2: View of the power line from the south.



Photo 3: View of the power line next to the main gravel road.

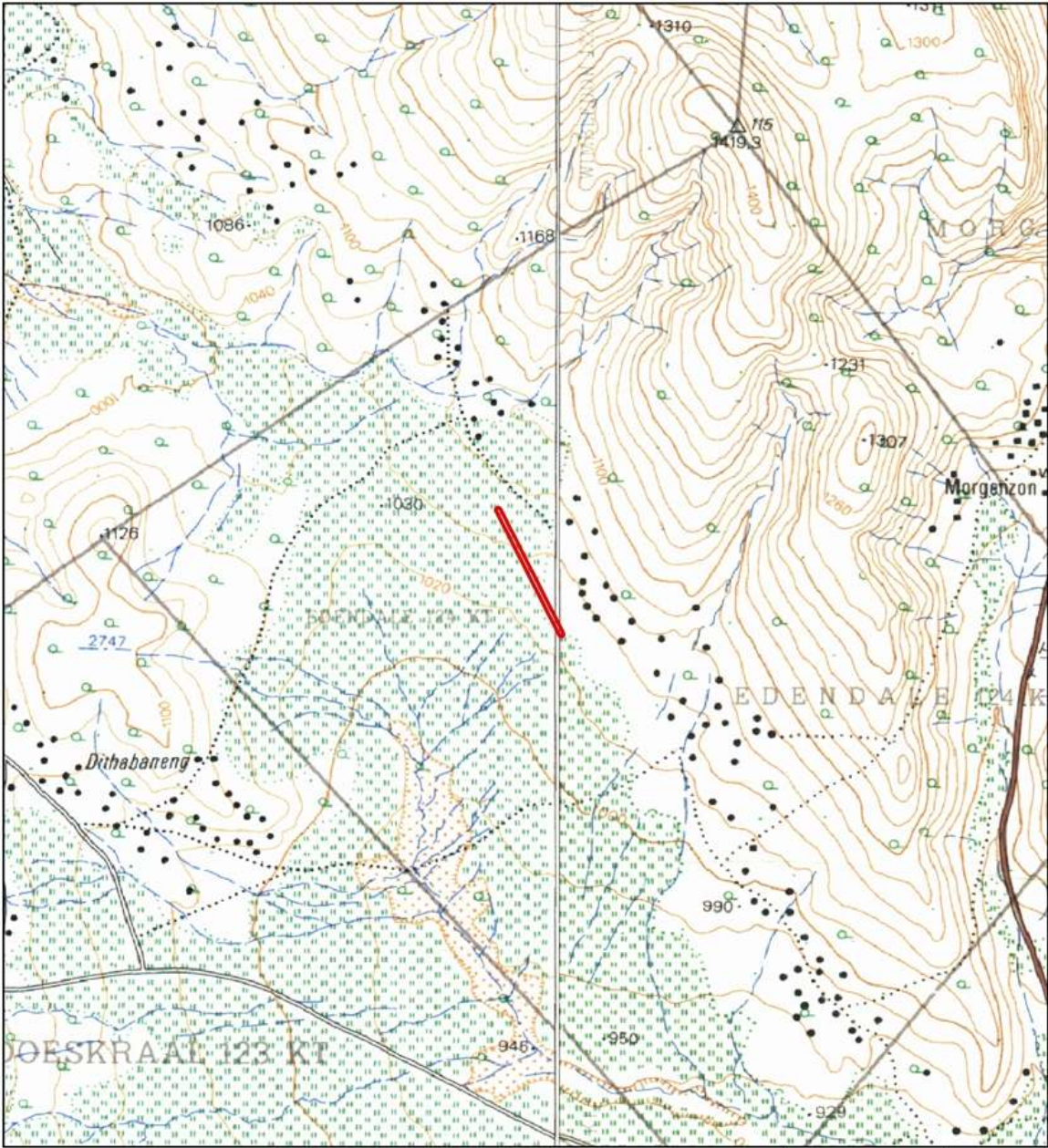


Photo 4: View of the power line from the north.

APPENDIX B

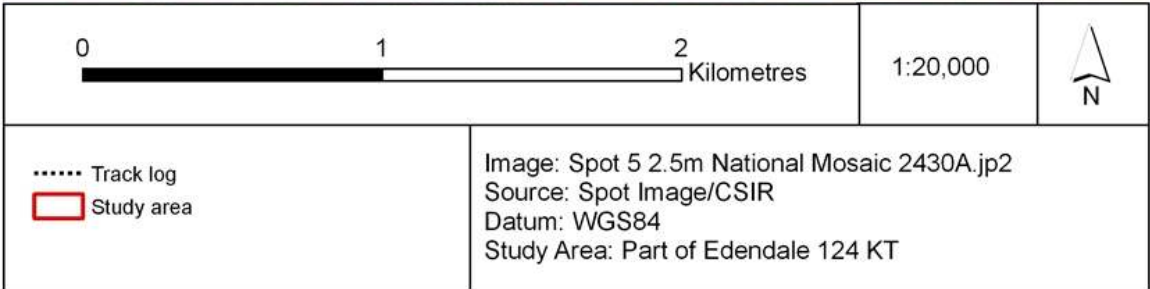
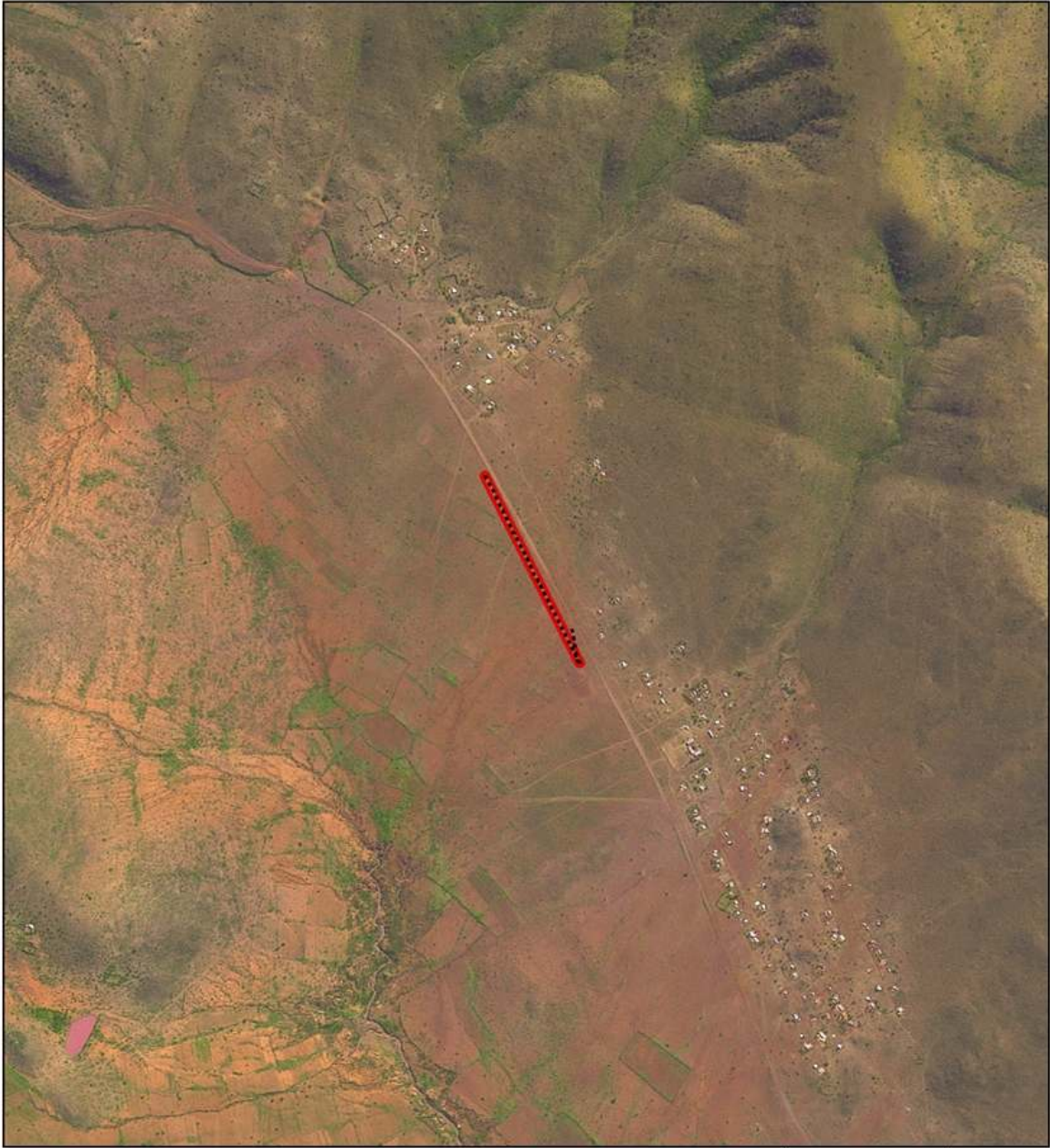
Location Maps

Phidima T-Off DESD

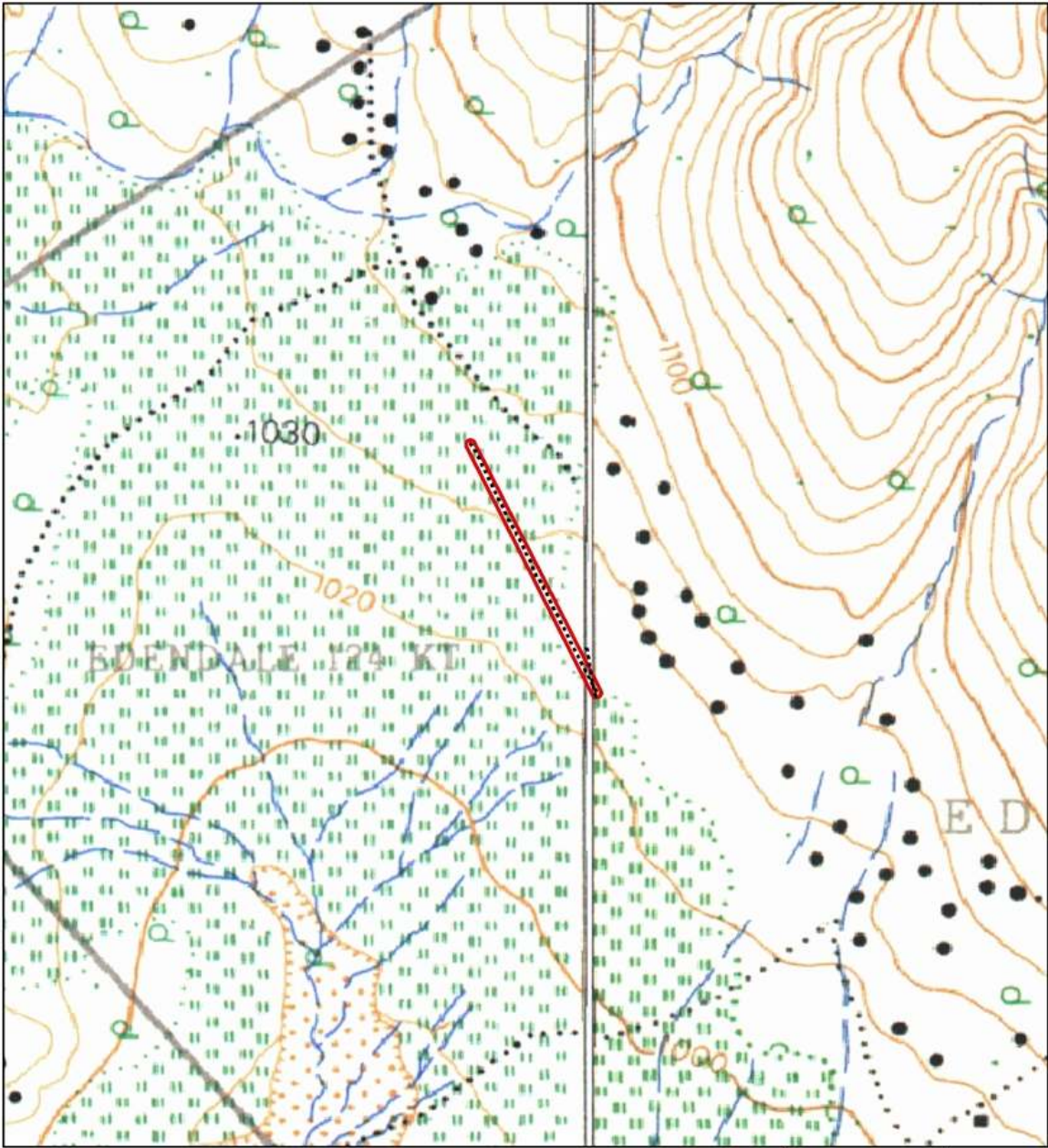


Study area	Imagery: WGS2430AC.TIF & WGS2430AD.TIF Source: Chief Directorate: National Geo-spatial Information Datum: WGS84 Study Area: Part of Edendale 124 KT
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Phidima T-Off DESD



Phidima T-Off DESD



<p>..... Track log</p> <p> Study area</p>	<p>Imagery: WGS2430AC.TIF & WGS2430AD.TIF Source: Chief Directorate: National Geo-spatial Information Datum: WGS84 Study Area: Part of Edendale 124 KT</p>
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Phidima T-Off DESD

