

SPECIALIST REPORT
PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR
PROPOSED SHANDUKA COAL REROUTING OF 2 X 88kV TRACTION LINES
(POWER LINES), MIDDELBURG

MPUMALANGA PROVINCE

REPORT COMPILED FOR
WANDIMA ENVIRONMENTAL SERVICES cc

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EXECUTIVE SUMMARY

A Phase 1 Heritage Impact Assessment (HIA) regarding archaeological and other cultural heritage resources was conducted on the footprint for the proposed Shanduka Mine 88kV power line deviation. Shanduka Coal requested that the current 88kV lines be deviated as they are already mining in the area where the existing 88kV lines are.

The study area is situated on topographical maps 1:50 000, 2529CD Middelburg, which fall within the Mpumalanga Province, and is situated on portions of the following farms: Uitkyk 290JS, Elandspruit 291JS, and government land which was previously the Middelburg plantation. This area falls under the jurisdiction of the Nkangala district municipality and Steve Tswete local municipality.

The National Heritage Resources Act, no 25 (1999)(NHRA), protects all heritage resources, which are classified as national estate. The NHRA stipulates that any person who intends to undertake a development such as a power line, is subjected to the provisions of the Act.

Shanduka Coal is requesting the deviation of 9,271km, 88kV power line, which is situated on their property. The proposed new lines will deviate from the existing 88kV lines on the farm Uitkyk, continues in a western direction towards the farm Elandspruit and then directly south to the railway line (Both these portions of Uitkyk and Elandspruit currently belong to Shanduka Coal). It then follows the railway line in an easterly direction, crosses the tarred road and goes directly north to join up with the existing Athlone line.

Before the mine started its development, this entire area was disturbed by commercial plantations and cultivated land. Other historic information is scarce and the heritage features and graves that were encountered, are all outside the proposed development and will therefore not be affected.

Based on the findings in this report, Adansonia Heritage Consultants cc, states that there are no compelling reasons that may prevent the proposed deviation of 88kV power lines to continue.

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**PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR
PROPOSED SHANDUKA COAL REROUTING OF 2x 88kV TRACTION LINES
(POWER LINES), MIDDELBURG**

A. BACKGROUND INFORMATION TO THE PROJECT

Shanduka Coal applied for the rerouting of 2x 88kV traction lines on the property of Shanduka Coal, Middelburg. The two 88kV traction overhead power lines are currently running over mining ground. At present the mine's operations are on both sides of these two lines. For the mine to continue their operations, these two lines need to be deviated to a new route around the mine's property as proposed.

Adansonia Heritage Consultants were appointed by Wandima Environmental Services cc to conduct a phase 1 heritage impact assessment (HIA) on archaeological and other heritage resources on the study area. The proposed deviation includes 9,271km of 88kV power lines from the mining area to connect with the existing Athlone line, Middelburg, Mpumalanga province.

A literature study, relevant to the study area was done, to determine that no archaeological or heritage resources will be impacted upon. (See **Appendix 2: Topographical Map: Proposed Eskom lines, Middelburg**).

The aims for this report will therefore be to source all relevant information on archaeological and heritage resources in the study area, and to advise the client on sensitive heritage areas and where it is viable for the development to take place in terms of the specifications as set out in the National Heritage Resources Act no., 25 of 1999 (NHRA). Recommendations for maximum conservation measures for any heritage resource will also be made. The study area is indicated in **Appendix 1** ESKOM: Proposed new line routes & **Appendix 2**, Topographical Map: Proposed Eskom lines, Middelburg.

- This study forms part of an EIA, Consultant: Wandima Environmental Services, P.O. Box 1072, Nelspruit, 1200, Tel: 013 7525452 / Fax: 013 – 7526877 / e-mail: nhlanhla@wandima.co.za
- Type of development: 9,271 km rerouting of 88kV power lines from Shanduka Coal (from the actual mining area) to connect with the existing Athlone

line, Middelburg, Mpumalanga province.

- No rezoning or subdivision of land is involved.
- Location of Province, Magisterial district / Local Authority and Property (farms):
The area falls within the Mpumalanga Province under the jurisdiction of the Nkangala district municipality and Steve Tswete local municipality. It includes portions of the following farms:
Uitkyk 290JS;
Elandspruit 291JS;

- List of Land owners for proposed Shanduka powerline project:

Owner / Representative	Contact number
Shanduka Coal representative: David Sichamba.	0718607872
Uitkyk 290 JS = Shanduka Coal	013 - 2448000
Elandspruit 291 JS = Shanduka Coal	013 - 244800
South = Middelburg Municipality	013 - 7497236
East = Black Wattle Colliery	013 - 2469013

- **Terms of reference:** As specified by section 38 (3) of the NHRA, the following information is provided in this report.
 - a) The identification and mapping of heritage resources where applicable;
 - b) Assessment of the significance of the resources;
 - c) Assessment of the impact of the power line development;
 - d) Evaluation of the impact of the power line development;
 - e) Consultation with community members to be affected by the proposed development.
 - f) Alternatives given to affected heritage resources by the power line development;
 - g) Plans for measures of mitigation.

- **Legal requirements:**

The legal context of the report is grounded in the National Heritage Resources Act no. 25, 1999, as well as the National Environmental Management Act (1998) (NEMA):

- **Section 38 of the NHRA**

This report constitutes a heritage impact assessment investigation linked to the environmental impact assessment required for the power line development. The

proposed development is a listed activity in terms of Section 38 (1) of the NHRA. Section 38 (2) of the NHRA requires the submission of a HIA report for authorisation purposes to the responsible heritage resources agency, (SAHRA). Heritage conservation and management in South Africa is governed by the NHRA and falls under the overall jurisdiction of the South African Heritage Resources Agency (SAHRA) and its provincial offices and counterparts.

Section 38 of the NHRA requires a Heritage Impact Assessment (HIA) to be conducted by an independent heritage management consultant, for the following development categories:

- Construction of a road, wall, **power line**, pipeline, canal or other linear form of development or barrier exceeding 300m in length;

In addition, the new EIA regulation promulgated in terms of NEMA, determine that any environmental report will include cultural (heritage) issues.

The end purpose of this report is to alert Wandima Environmental Services, the client, and interested and affected parties about existing heritage resources that may be affected by the proposed development, and to recommend mitigation measures aimed at reducing the risks of any adverse impacts on these heritage resources. Such measures could include the recording of any heritage buildings or structures older than 60 years prior to demolition, in terms of section 34 of the NHRA and also other sections of this act dealing with archaeological sites, buildings and graves.

The NHRA section 2 (xvi) states that a “heritage resource” means any place or object of cultural significance, and in section 2 (vi) that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

Apart from a heritage report assisting a client to make informed development decisions, it also serves to provide the relevant heritage resources authority with the necessary data to perform their statutory duties under the NHRA. After evaluating the heritage scoping report, the heritage resources authority will decide on the status of the resource, whether the development may proceed as proposed or whether mitigation is acceptable,

and whether the heritage resource require formal protection such as a Grade I, II or III resource, with relevant parties having to comply with all aspects pertaining to such grading.

- **Section 35 of the NHRA**

Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. This section may apply to any significant archaeological sites that may be discovered. In the case of such chance finds, the heritage practitioner will assist in investigating the extent and significance of the finds and consult with an archaeologist about further action. This may entail removal of material after documenting the find or mapping of larger sections before destruction.

This section does not apply since no archaeological material was found which might be impacted upon by the development.

- **Section 36 of the NHRA**

Section 36 of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority. This section may apply in case of the discovery of chance burials. This section does not apply since graves or burial sites that were identified during the survey, will not be affected by the proposed development.

- **Section 34 of the NHRA**

Section 34 of the NHRA stipulates that no person may alter, damage, destroy, relocate etc, any building or structure older than 60 years, without a permit issued by SAHRA or a provincial heritage resources authority. This section does not apply since no buildings / structures older than 60 years that were identified during the survey, will be affected by the proposed development.

- **Section 37 of the NHRA**

This section deals with public monuments and memorials but does not apply in this report.

- **NEMA**

The regulations in terms of Chapter 5 of the National Environmental Management Act, (107/1998), provide for an assessment of development impacts on the cultural (heritage) and social environment and for specialist studies in this regard.

B. BACKGROUND TO ARCHAEOLOGY AND HISTORY OF THE STUDY AREA

- **Literature review, museum databases & previous relevant impact assessments**

In order to place the study area and Middelburg in archaeological context, primary and secondary sources were consulted. Ethnographical and linguistic studies by early researchers such as Ziervogel, Theal and Van Warmelo shed light on the cultural groups living in the area since ca 1600. Historic and academic sources by Küsel, Bergh, were consulted, as well as historic sources by Makhura and Webb.

There are no museums in Middelburg town which could be consulted, and no historical information was available at the municipality or information centre. The author had to rely on the assistance of local people documenting relevant history in the area. The 1974 topographical map 2529CD Middelburg, revealed that the study area was highly disturbed before the coal mining activities with a large section of government land which was used as plantations, as well as cultivated land with orchards, excavated quarries and mines on the adjacent land (See **Appendix 2**: Topographical map: Proposed Eskom lines, Middelburg).

Very little contemporary research has been done on prehistoric African settlements in the study area, although the 1974 topographical map 2529CD Middelburg show some “kraals” to the north, outside the current study area (See **Appendix 2**: Topographical map: Proposed Eskom lines, Middelburg). According to Bergh, there are no recorded sites that date from the Stone Age, (including Rock paintings or engravings), Early or Later Iron Age.¹

The Middelburg area was sparsely populated in the 19th century, and although Bergh ²

¹ J.S. Bergh, *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, pp. 4-7.

² *Ibid.*, p. 10.

indicates that only the *Ndzundza Ndebele* group is situated to the north of Middelburg, ethnographical and linguistic studies by early researchers such as D. Ziervogel and N.J. Van Warmelo, revealed that the study area was inhabited by the *Ndzundza abaga* (Ndebele), *Nhlapo abakwa*, and various tribes of the *baSotho* (baKôpa, baPedi). (See **Appendix 5: Bantu Tribes of South Africa: NJ Van Warmelo, Survey 1935**).³ Van Warmelo based his 1935 survey of *Bantu Tribes of South Africa* on the amount of taxpayers living in the area. One dot on the map represented 10 taxpayers, which were mainly male.

- **AmaNDEBELE**

According to Van Warmelo, the *amaNdebele* are the earliest known offshoot of the *Nguni* group. The Ndebele is divided into two groups, the Southern and the Northern, and they are separated from one another. A certain legendary chief *Msi* or *Musi* heads a list of about twenty-five successive chiefs who lived just north of where Pretoria now stands. His two sons were *Manala* and *Ndzundza* and form the most important tribes of the Southern group. The *abagaNdzundza* moved eastwards and settled near Roos Senekal, approximately 85km north-east of Middelburg, and it is said that some of *Manala's* followers, the *abagaManala*, settled in the Witbank district. The tribes slowly broke up after the days of the Republic.⁴

- **CENTRAL SOTHO**

The tribes in this group were at one time largely under the rule of the baPedi, who's last independent king was *Sekhukhune*, who's stronghold was to the north of Middelburg (Steelpoort area) although his domain was extremely large.⁵ Great numbers of *baSotho* who belong to the above group, who still speak *sePedi* but which became detribalized, live in the districts of Middelburg, Lydenburg, Witbank and Springs. They mingle freely with other groups such as the Zulu, Swazi and Tonga.

- **HISTORY OF MIDDELBURG**

Middelburg was established as Nasareth (meaning root from dry land), in 1864 by the Voortrekkers on the banks of the Klein Olifants river. The name was changed in 1872 to

³ N.J. Van Warmelo, *A preliminary Survey of the Bantu Tribes of South Africa*, p. 18.

⁴ *Ibid.*, p. 87.

⁵ *Ibid.*, p. 108.

Middelburg to mark its situation halfway between the Transvaal capital of Pretoria and the gold mining town of Lydenburg. A Dutch Reformed Church was built in 1890. The British built a large concentration camp in Middelburg during the Second Boer War. North of Middelburg, the township of Mhluzi developed simultaneously (Botshabelo) and became part of greater Middelburg in 1994.⁶

Middelburg is a large farming and industrial town in Mpumalanga. It is known as the “Stainless Steel Capital” of Africa.

C. DESCRIPTION OF AREA TO BE AFFECTED BY DEVELOPMENT

The proposed project will involve the following:

- Approximately 9,271km of 88kV deviation of power line from Shanduka Coal to join with the existing Athlone line;

Information supplied by Wandima Environmental Services (See list of GPS co-ordinates below).

D. LOCALITY

The site of origin for the proposed deviation of the power line is inside Shanduka Coal property, next to the town of Middelburg. The proposed deviation will follow a route around the mine’s property. The proposed new line will deviate from the existing 88kV lines on the farm Uitkyk, continues in a western direction towards the farm Elandspruit and then directly south to the railway line. It then goes parallel with the railway line in an easterly direction (towards Uitkyk), crosses the tarred road and goes directly north to join up with the existing Athlone line (**Appendix 1** ESKOM: Proposed new line routes & **Appendix 2**: Topographical Map: Proposed Eskom lines, Middelburg), as indicated by ESKOM and information supplied by Wandima Environmental Services. The area is within the Mpumalanga Province.

The proposed area for development is situated on two (2) farms, Uitkyk 290JS and Elandspruit 291JS, as well as a section which was previously government plantation land. Shanduka Coal owns most of the area under study but where the line leaves the mining property, it is in the existing servitude which is municipal land. (see **section A**, for list of landowners).

The general study area is highly disturbed by current mining activities. The small section

⁶ Middelburg Information, <http://www.infomiddelburg.co.za/history.html>.

to the south of Shanduka Coal, where the proposed line will be rerouted, is next to the existing railway line, a service road and where the SASOL gas pile line is situated. The private land to the south is disturbed cultivated land with orchards, excavated quarries, further mining activities and wattle plantations.

Before this section was disturbed by the above activities it was classified as Highveld grassland of the Witbank-Middelburg area in central Mpumalanga. The natural vegetation was sour grassland. The most serious transformation of the natural environment consists of numerous open cast and underground coal mines and several large power stations that are visible on all horizons. Due to these land uses, almost no natural habitats remain in the study area.⁷

GPS co-ordinates were used to locate any heritage features within the study area.

- **Description of methodology:**

The ESKOM: Proposed new line routes (**Appendix 1**), Topographical Map: Proposed Eskom lines, Middelburg (**Appendix 2**), as well as Google Earth images (**Appendix 3 - 4**), indicate the study area. These were intensively studied to assess the current and historic disturbed areas and infrastructure. In order to reach a comprehensive conclusion regarding the cultural heritage resources in the study area, the following methods were used:

- The desktop study consists mainly of archival sources studied on distribution patterns of early African groups who settled in the area since the 17th century, and which have been observed in past and present ethnographical research and studies.
- Literary sources, books and government publications, which were available on the subject, have been consulted, in order to establish relevant information.
- Several specialists currently working in the field of anthropology and archaeology have also been consulted on the subject.

-Literary sources: A total number of ten books and government publications about prehistory and history of the area were consulted, and revealed some information;

-Archaeological database of the National Cultural History Museum were consulted.

⁷ D. van der Walt & C. van der Walt, *Specialist Biodiversity Report, Vegetation & Terrestrial fauna*, pp. 10-11.

-Personal communication with land owners were conducted.

- The fieldwork and survey was conducted on foot and with vehicles, with three people over 2 days of the proposed power line route, approximately 9,271 km.
- Local inhabitants in specific areas were consulted throughout the survey.
- Most of the area is under cultivated land, orchards, excavated quarries, wattle plantation and old mines, as well as cattle grazing.
- The terrain was even and accessible.
- The relevant data was located with a GPS instrument (Garmin Etrex) datum WGS 84, and plotted. Co-ordinates were within 4-6 meters of identified sites.
- Evaluation of the resources which might be impacted upon by the footprint, was done within the framework provided by the National Heritage Resources Act, no. 25 (1999);
- Personal communication with relevant stakeholders on the specific study area, were held, such as with land owners and Principal Investigator, Dr. U Küsel, who worked in the area and confirmed that he is not aware and has not encountered any archaeological sites in this study area.

- **GPS: Co-ordinates of the proposed power line route**

CO-ORDINATES		
NO	LONG	LAT
A	29° 24' 20.923" E	25° 49' 07.740" S
B	29° 24' 23.388" E	25° 49' 11.807" S
C	29° 24' 20.793" E	25° 49' 15.126" S
D	29° 24' 13.942" E	25° 49' 13.676" S
E	29° 24' 27.261" E	25° 49' 45.579" S
F	29° 25' 23.501" E	25° 49' 39.374" S
G	29° 25' 41.532" E	25° 48' 37.247" S

E. DESCRIPTION OF IDENTIFIED SITES

All comments should be studied in conjunction with the appendices, which indicate the areas, and which corresponds with the summary below.

Please note: Shanduka Coal has expanded its property since the Google image (Appendix 3) was taken in 2006. The image shows that the area west of Shanduka Coal, is still privately owned cultivated area, but it is in fact now the property of Shanduka, and currently a highly disturbed coal mining area.

A – E: Is situated on Shanduka Coal property

E – F: Is situated on road servitude and belongs to Middelburg municipality.

F – G: Land belongs to Black Wattle Colliery, with a small section where Shanduka Coal Central offices are.

Site location	Description/Comments	Heritage feature
A – B	The area A – B is situated in highly disturbed coal mining area Fig. 1.	No archaeological or heritage features were observed
B – C	The area B – C is situated in highly disturbed coal mining area. Fig. 1.	No archaeological or heritage features were observed
C – D	The area C – D is situated in highly disturbed coal mining area. Fig. 1.	No archaeological or heritage features were observed
D – E	The area D – E is situated in highly disturbed coal mining area. Fig. 2.	No archaeological or heritage features were observed
E – F	The area E – F is situated next to an existing railway line and service road. The sasol gas line from Secunda is also situated in this section as well as existing power lines. This is municipal land, which was also previously disturbed by cultivation, orchards and plantations. Further east, the area is highly disturbed and currently under wattle plantation. There was also an old mine that is no longer in use and illegal dumping takes place along this route. See Fig. 3,5,6,7. This is also municipal property.	No archaeological or heritage features were observed. A homestead is situated to the north of the proposed line (Feature “H 1”) on the Google Earth image S25° 49' 35.84" E29° 25' 13.35" (Appendix 3), but will not be impacted upon by the proposed power lines. Fig. 8, homestead Fig. 4, gas line.
F – G	The area F – G is situated next to an existing tarred road on land that is currently used for cattle grazing, and mainly wattle plantation. Near point F is the foundation of a grain silo which was most probably used by the previous farmers. Access to Shanduka Coal offices is situated in this section. A worker Josiah Maleshane stated that he worked here for a number of years and is not aware of any graves or pre-colonial features in this section.	Feature “F2” (Appendix 3) Foundation of a grain silo S25° 49' 40.5" E29° 25' 23.2" Fig. 9, grain silo No other archaeological or heritage features were observed
G	Point G is where the proposed deviation of the lines will link up with the existing lines towards Athlone.	No archaeological or heritage features were observed in this section Fig. 11.

Other: Feature "G 1 & G 2":	"G 1 & G 2": Two burial sites were found on the property but will not be impacted upon by the proposed development. G 1: There are 3 to 4 graves and the mine has demarcated them by surrounding it with a berm wall. G 2: One grave with stone casing is situated approximately 20m from "F 1".	Grave site 1 S25° 49' 32.9" E29° 22' 50.2" Fig. 12. Grave site 2 S25° 49' 32.9" E29° 22' 50.2" Fig. 13.
Feature "D":	"D": A farmhouse was previously demolished when mining activities started in this area.	"D" = Demolished farmhouse S25° 49' 32.58" E29° 23' 11.45" Fig. 14.
Feature "F1":	"F 1" Square stone Foundations of a colonial homestead is situated approximately 20m from G 2 (single grave). There is also a round foundation visible.	"F" = Foundations of colonial homestead S25° 49' 28.0" E29° 23' 14.5"

F. DISCUSSION ON THE FOOTPRINT OF THE PROPOSED DEVELOPMENT

<i>ACT</i>	<i>COMPONENT</i>	<i>IMPLICATION</i>	<i>RELEVANCE</i>	<i>COMPLIANCE</i>
NHRA	S 34	Impact on buildings and structures older than 60 years	No foundations or houses will directly be impacted upon by the proposed power line	None on the proposed route of study area
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	Graves, burial sites are present but fall outside the proposed route of the power line	None on the proposed route of study area
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	HIA done

ACT	COMPO- NENT	IMPLICATION	RELEVANCE	COMPLIANCE
NEMA	EIA regulations	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

- **Summarised identification and cultural significance assessment of affected heritage resources:** (See significance assessment criteria in **Appendix 7**):
(Standardized set of conventions used to assess the impact of projects on individual heritage features)
- **General issues of site and context:**

Context		
Urban environmental context	No	-
Rural environmental context	No	Mining context
Natural environmental context	No	Highly disturbed area by mining activity / cultivation and plantations
Formal protection (NHRA)		
(S. 28) Is the property part of a protected area?	No	-
(S. 31) Is the property part of a heritage area?	No	-
Other		
Is the property near to or visible from any protected heritage sites	No	-
Is the property part of a conservation area of special area in terms of the Zoning scheme?	No	-
Does the site form part of a historical settlement or townscape?	No	-
Does the site form part of a rural cultural landscape?	No	-
Does the site form part of a natural landscape of cultural significance?	No	-
Is the site adjacent to a scenic route?	No	-

Context		
Is the property within or adjacent to any other area which has special environmental or heritage protection?	No	-
Does the general context or any adjoining properties have cultural significance?	No	-

Property features and characteristics		
Have there been any previous development impacts on the property?	Yes	The site was originally cultivated farmland and is currently subjected to coal mining activity. A railway line, service roads, SASOL gas pipeline as well as existing power lines, are situated directly adjacent to the mine property. Smallholdings with cultivated land, orchards, wattle plantation, and previous mining also disturb the adjacent landscape.
Are there any significant landscape features on the property?	No	-
Are there any sites or features of geological significance on the property?	No	-
Does the property have any rocky outcrops on it?	No	-
Does the property have any fresh water sources (springs, streams, rivers) on or alongside it?	No	-

Heritage resources on the property		
Formal protection (NHRA)		
National heritage sites (S. 27)	Yes	All graves, burial sites and cemeteries are formally protected by NHRA – but will not be disturbed by the current proposed development.
Provincial heritage sites (S. 27)	No	-

Heritage resources on the property		
Provincial protection (S. 29)	No	-
Place listed in heritage register (S. 30)	No	-
General protection (NHRA)		
Structures older than 60 years (S. 34)	Yes	Foundations and a house – will not be impacted upon by the development.
Archaeological site or material (S. 35)	No	-
Palaeontological site or material (S. 35)	No	-
Graves or burial grounds (S. 36)	Yes	Two burial sites have been encountered but not close to the proposed development
Public monuments or memorials (S. 37)	No	-
Other		
Any heritage resource identified in a heritage survey (author / date / grading)	No	-
Any other heritage resources (describe)	No	-

NHRA S (3)2 Heritage resource category	ELEMENTS	INDICATORS OF HERITAGE SIGNIFICANCE										RISK	
		Historical	Rare	Scientific	Typical	Technological	Aesthetic	Person / community	Landmark	Material condition	Sustainability		
Buildings / structures of cultural significance	Foundations encountered	Yes	0	0	0	0	0	0	Yes	0	0	0	No risk: Will not be impacted upon by the proposed development

NHRA	ELE-	INDICATORS OF HERITAGE SIGNIFICANCE										RISK	
Areas attached to oral traditions / intangible heritage	No	0	0	0	0	0	0	0	0	0	0	0	
Historical settlement/ townscapes	No	0	0	0	0	0	0	0	0	0	0	0	-
Landscape of cultural significance	No	-	-	-	-	-	-	-	-	-	-	-	-
Geological site of scientific/ cultural importance	No	-	-	-	-	-	-	-	-	-	-	-	-
Archaeological / palaeontological sites	No	-	-	-	-	-	-	-	-	-	-	-	-
Grave / burial grounds	Two burial sites were identified – one with 3-4 graves and the other a single grave	Yes	-	-	Yes	-	-	Yes	-	-	-	-	No risk as it will not be impacted upon by the proposed power line route
Areas of significance related to labour history	No	-	-	-	-	-	-	-	-	-	-	-	-

NHRA	ELE-	INDICATORS OF HERITAGE SIGNIFICANCE										RISK	
Movable objects	No	-	-	-	-	-	-	-	-	-	-	-	-

- **Summarised recommended impact management interventions**

NHRA S (3)2 Heritage resource category	SITE	IMPACT SIGNIFICANCE Cultural significance rating		Impact management	Motivation
		Cultural significanc	Impact significanc		
Buildings / structures of cultural significance	Yes	Yes	None	-	No risk involved as sites will not be impacted upon by the proposed power line development
Areas attached to oral traditions / intangible heritage	No	None	None	-	-
Historical settlement/ townscape	No	None	None	-	-
Landscape of cultural significance	No	None	None	-	-
Geological site of scientific/ cultural importance	No	None	None	-	-
Archaeological / palaeontological sites	No	None	None	-	-
Grave / burial grounds	Yes	Yes	None	-	No graves / burial sites will be impacted upon by the proposed power line development

NHRA S (3)2 Heritage	SITE	IMPACT SIGNIFICANCE Cultural significance rating		Impact management	Motivation
Areas of significance related to labour history	No	None	None	-	-
Movable objects	No	None	None	-	-

ACT	COMPO- NENT	IMPLICATION	RELEVANCE	COMPLIANCE
NHRA	S 34	Impact on buildings and structures older than 60 years	Foundation of colonial and modern structures were identified but will not be impacted upon	None – There will be no impact on the building or foundations in the proposed development
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	Graves identified on property – but not close to the proposed development	None - There will be no impact on the graves in the proposed development
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	Full HIA
NEMA	EIA regulations	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

G. STATEMENT OF SIGNIFICANCE & EVALUATION OF HERITAGE RESOURCES IN THE STUDY AREA

Section 38 of the NHRA, rates all heritage resources into National, Provincial or Local significance, and proposals in terms of the above is made for all identified heritage features.

- **Evaluation methods**

Site significance is important to establish the measure of mitigation and / or management of the resources. Sites are evaluated as *HIGH (National importance)*, *MEDIUM (Provincial importance or LOW, (local importance)*, as specified in the NHRA. It is explained as follows:

- **National Heritage Resources Act**

The National Heritage Resources Act no. 25, 1999 (NHRA) aims to promote good management of the national estate, and to enable and encourage communities to conserve their legacy so that it may be bequeathed to future generations. Heritage is unique and it cannot be renewed, and contributes to redressing past inequities.⁸ It promotes previously neglected research areas.

All archaeological and other cultural heritage resources are evaluated according to the NHRA, section 3(3). A place or object is considered to be part of the national estate if it has cultural significance or other special value in terms of:

- (a) its importance in the community, or pattern of South Africa's history;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.⁹

⁸National Heritage Resources Act, no. 25 of 1999. p. 2.

⁹National Heritage Resources Act, no. 25 of 1999. pp. 12-14

- **Graves**

SAHRA Policy on burial grounds

The policy is that graves and cemeteries should be left undisturbed, no matter how inaccessible and difficult they are to maintain. It is our obligation to empower civil society to nurture and conserve our heritage. It is only when essential developments threaten a place of burial, that human remains should be disinterred to another cemetery or burial ground.

From a historical point of view and for research purposes, it is vital that burial sites are not disturbed. The location and marking of an individual's grave tells a life story, where he / she died defending (or attacking) a particular place or situation and makes it easier to understand the circumstances of his / her death.¹⁰

- **The significance and evaluation of the archaeological and cultural heritage features in the study area, can be summarised as follows:**

Site no	Cultural Heritage features	Significance	Measures of mitigation
G 1 G 2	One burial site Single grave	High	No mitigation needed for this current project as the graves are not close to the proposed new route of the power lines, and will not be affected
F 1 F 2	Foundations of colonial structure (60< years) Foundations of grain silo (not 60 years old)	Low	No mitigation needed as the colonial structure is not close to the proposed new route for the power lines, and will not be affected; The grain silo is not yet 60 years old
D	Demolished farmhouse	None	Not 60 years old
H	House might be older than	Low	No mitigation needed as the

¹⁰SAHRA, Burial sites, [Http://www.sahra.org.za/burial.htm](http://www.sahra.org.za/burial.htm), Access, 2008-10-16.

	60 years		house is approximately 70m from the proposed new route for the power lines, and will not be affected
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- **Field rating:** All graves are rated as High and are of outstanding significance as specified by the NHRA. Mitigation measures are however not necessary, as both sites are not close to the proposed deviation route of the power lines.

- **H. RECOMMENDATIONS**

The Shanduka Coal mine site is situated in an already heavily disturbed area, both inside and outside the mine’s perimeters. Some heritage features as well as two grave sites were encountered during the survey, but none of these will be affected by the proposed development.

It is therefore recommended that, based on the findings in this report, Adansonia Heritage Consultants cc, have no compelling reasons that may prevent the proposed deviation of the 88kV power line at Shanduka Coal, to continue.

- **I. CONCLUSION**

Archaeological material or graves are not always visible during a field survey and therefore some significant material may only be revealed during construction activities of the power line development. It is therefore recommended that the developers be made aware of this possibility and when human remains, clay or ceramic pottery etc. are observed, a qualified archaeologist must be notified and an assessment be done. Further research might then be necessary in this regard for which the developer will be responsible.

Adansonia Heritage Consultants can not be held responsible for any archaeological material or graves which were not located during the survey.

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