



Archaetnos Culture & Cultural
Resource Consultants
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**A REPORT ON AN ADDITIONAL CULTURAL HERITAGE IMPACT
ASSESSMENT FOR THE PROPOSED KRIEL MINING OPERATIONS AT THE
KRIEL COLLIERY, MPUMALANGA PROVINCE**

For:

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REPORT: AE1194

by:

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EXECUTIVE SUMMARY

Archaetnos cc was requested by SRK Consulting to conduct a cultural heritage impact assessment (HIA) for the proposed extension of mining at the Kriel Colliery in the Mpumalanga Province. The development constitutes work on the farms Vierfontein 61 IS, Roodepoort 40 IS, Nooitgedacht 59 IS, Roodebloem 58 IS and Onverwacht 70 IS.

The planned mining will be done on Blocks 7 and K on the mine. The client indicated the areas where the proposed development is to take place (through the provision of drawings), and the survey was confined to this area.

A survey of the available literature was undertaken in order to obtain background information regarding the area. This was followed by the field survey which was conducted according to generally accepted HIA practices, aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

All sites, objects features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities were determined by means of a Global Positioning System (GPS). The information was added to photographs and the description in order to facilitate the identification of each locality.

During the survey eleven sites of cultural heritage significance were located in the area to be developed. During an additional survey two more sites were identified. The total number of sites therefore is thirteen. All these are grave yards. No other cultural resources were identified. It is however known that some Iron Age occurrences were identified in the greater Kriel area as well as remains from the recent past.

The thirteen grave yards date to the Historical Age. Consultation with members of the community indicated that these are the only graves in the surveyed area.

It seems as if 10 of the sites will be directly impacted on by the mining and there will be a secondary impact on the remaining three. This needs to be confirmed by the mine.

With graves it usually is best to incorporate it into the development plan for the mine. Should this be possible, the sites not impacted on directly, should be fenced in and maintained. For this a management plan should be drafted. However, access to any descendants should also be allowed. This may create logistical problems for the mine and therefore this option should be considered very carefully.

Should this not be possible the graves will have to be exhumed and the bodies reburied. This process is a lengthy process including social consultation in order to find families of the deceased and to obtain their permission. In the case of graves older than 60 years and those with an unknown date of death an archaeologist as well as an undertaker will have to be part

of the team involved. A permit from SAHRA will also need to be obtained. For graves with a date of death of younger than 60 years, only an undertaker is involved.

The proposed development may continue only after proper implementation of the mitigation measures recommended.

It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Care should therefore be taken when mining commences that if any of these are discovered, a qualified archaeologist be called in to investigate.

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1. INTRODUCTION

Archaetnos cc was requested by SRK Consulting to conduct a cultural heritage impact assessment for the proposed expansion of coal mining at the Kriel Colliery. The mine is situated to the west of the town of Kriel in the Mpumalanga Province. The development constitutes work on the farms Vierfontein 61 IS, Roodepoort 40 IS, Nooitgedacht 59 IS, Roodebloem 58 IS and Onverwacht 70.

The extended mining activities include the open cast mining of coal deposits. The client indicated the areas where the proposed development is to take place and the survey was confined to this area.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Undertake a desk top study of available information on the area.
2. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
3. Documenting such sites in a report including photographs and indicating them on a map with GPS references.
4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.
7. Recommend and describe suitable mitigation measures should there be any sites of significance that might be impacted upon by the proposed development.
8. Review applicable legislative requirements.

3. DETAILS AND EXPERTISE OF THE PERSON WHO PREPARED THE REPORT

Dr. Anton Carl van Vollenhoven:

Tertiary education

- BA 1986, University of Pretoria

- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

Relevant positions held

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archaetnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.

Experience and professional affiliations

- Has published 68 articles in scientific and popular journals on archaeology and history.
- Has been the author and co-author of over 180 unpublished reports on cultural resources surveys and archaeological work.
- Has published a book on the Military Fortifications of Pretoria.
- Has delivered more than 40 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008).
- Has been editor for the SA Journal of Cultural History 2002-2004.

4. DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:



Date: 22 September 2011

5. SCOPE, PURPOSE, METHODOLOGY AND APPROACH

5.1 Scope and purpose

The scope for the survey was to identify any archaeological and cultural resources on the area indicated. These areas were assessed as completely as possible, bearing in mind the accessibility (via foot) and denseness of vegetation.

5.2 Survey of literature

A survey of the available literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

5.3 Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed.

The survey was undertaken on foot and via an off-road vehicle.

5.4 Oral histories

People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography. In this particular case information obtained from the farmers in the area was extremely helpful.

5.5 Documentation

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities were determined by means of a Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

6. ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity. These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.

2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix B).
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
7. In this particular case certain areas were densely vegetated and it was impossible to penetrate. Due to the very good rains, this may have even been more the case than usually.
8. Although care was taken to give a comprehensive background on the history of the area, it has to be stated that it is impossible to give a complete indication on human activities of the past as sources are not always readily available. The information given in the report should however give a fair reflection of the past.

7. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

7.1 The National Heritage Resources Act

According to the above-mentioned law the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years

- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

Archaeology, palaeontology and meteorites

Section 35(4) of this act states that no person may, without a permit issued by the responsible heritage resources authority:

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency.

Human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. 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; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

7.2 The National Environmental Management Act

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

8. BASELINE INFORMATION

8.1 Description of the area

The proposed development area is located to the north-west of the town of Kriel in the Mpumalanga Province (Figure 1 and 2). The specific areas that were surveyed are Blocks 7 and K. These have been mostly disturbed by past human activities, mainly agricultural activities and the grazing of livestock (Figure 3). The area is dominated by maize crops. Block 7 also shows signs of earlier mining activities. Old prospecting holes and other mining rubble was identified here.

The topography is uneven with low hills. The Rietspruit and some of its tributaries criss-crosses through Block 7 and the north of Block K and the topography slopes down to the river. The Steenkoolspruit runs through the south of Block K with a similar fall in topography. This southern area shows the most natural vegetation consisting of grassland with a few large trees. Close to the river the area slopes down towards the river.

Farm houses and other farm related structures were found throughout the area. These were however either not older than 60 years, have been changed to such an extent that it has no heritage value or is in too much of a deteriorated stage to be considered as having any heritage value.

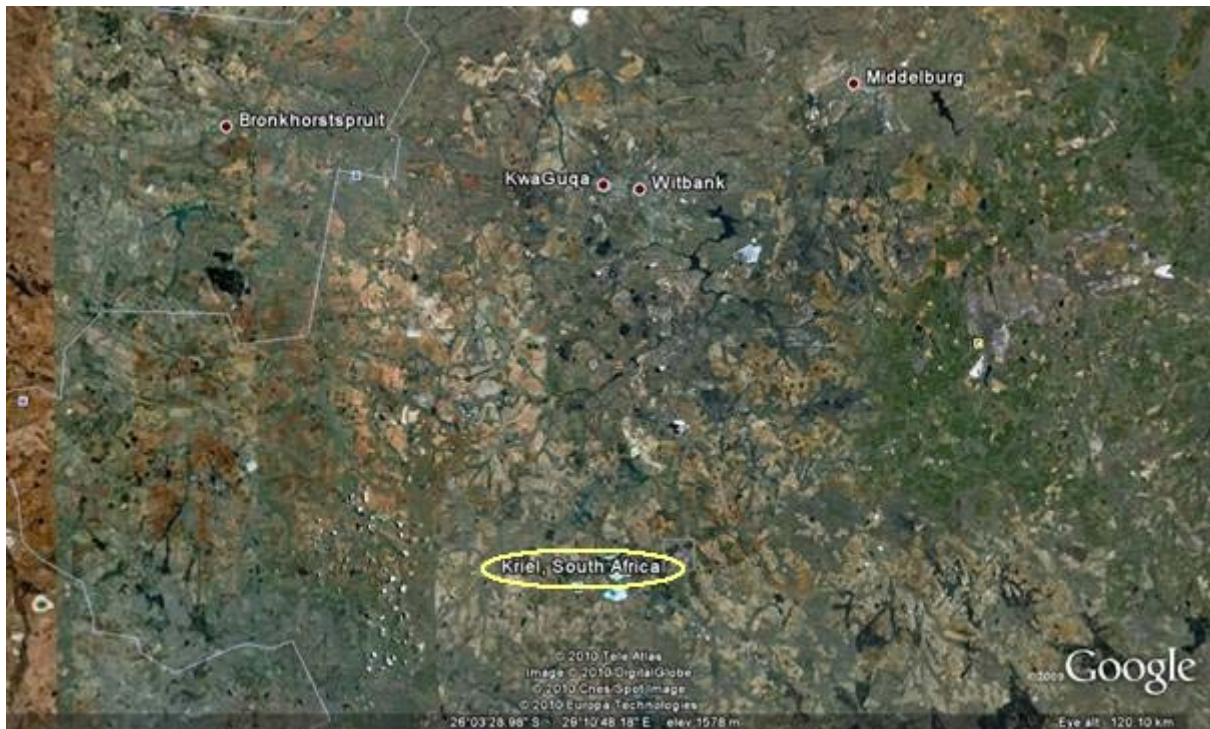


Figure 1 Location of the town of Kriel.

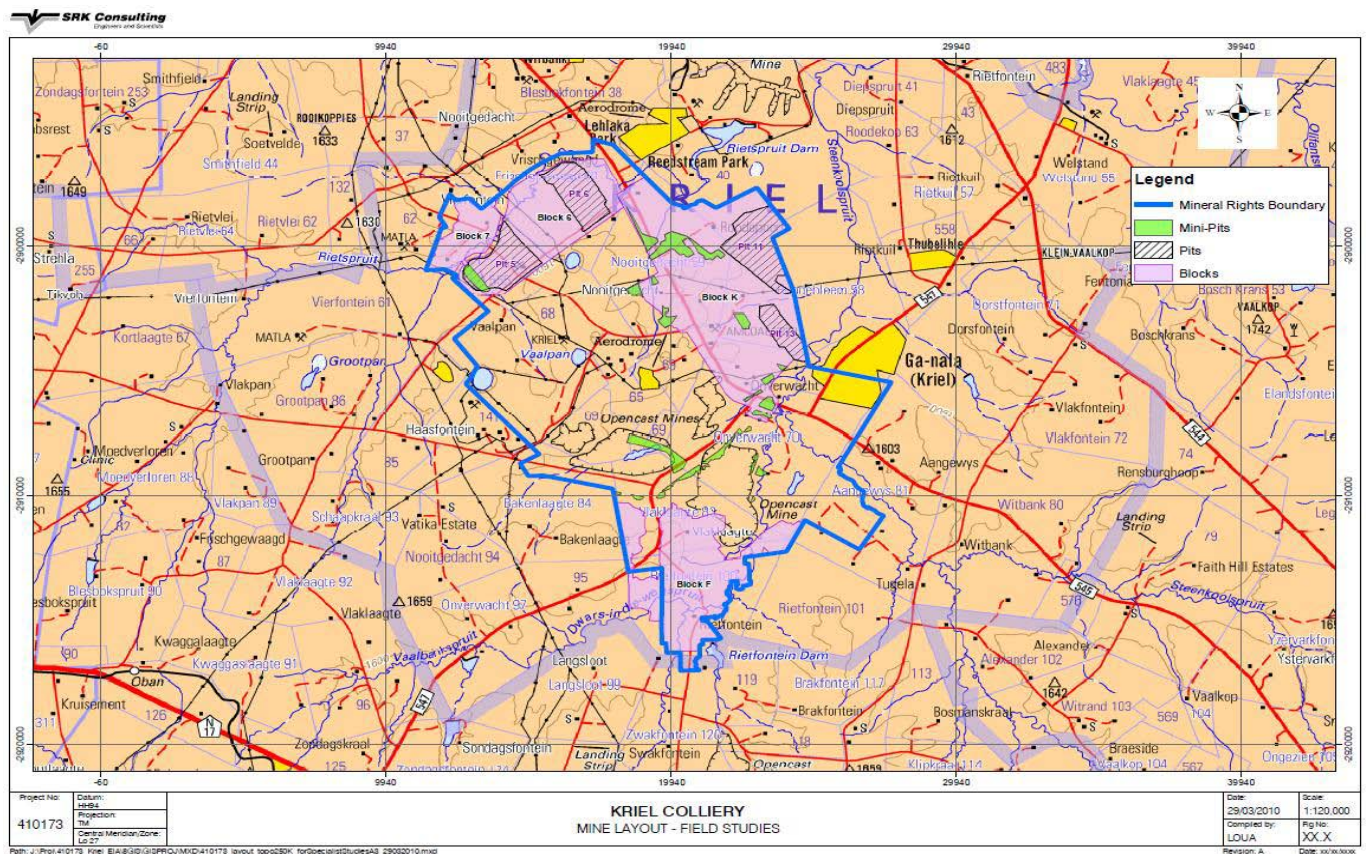


Figure 2 Map indicating the proposed mining area in pink. Only Blocks 7 and K were investigated.



Figure 3 General view of the surveyed area.

8.2 History of the area

Apart from graves no sites of cultural heritage significance were located in the area to be developed during the survey. This report indicates suitable mitigation measures in this regard. In order to enable the reader to better understand this, it is necessary to give a background regarding the different phases of human history.

Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

- Early Stone Age (ESA) 2 million – 150 000 years ago
- Middle Stone Age (MSA) 150 000 – 30 000 years ago
- Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

The geographical area around the town of Kriel is not known as an area containing prehistoric sites. No Stone Age sites are for instance indicated on a map contained in a historical atlas of this area (Bergh 1999: 4). The closest known Stone Age occurrence is that of rock art close to the Olifants River to the south of Witbank (Bergh 1999: 5). This however should rather be seen as a lack of research in the area and not as an indication that such features do not occur.

During this survey no indication of Stone Age activities were found. However the dense vegetation is probably a contributing factor to this.

Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however, indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

Iron Age sites have been identified to the south of the area, around Bethal (Bergh 1999: 6-7). These all are dated to the Late Iron Age. It is also known that the early trade routes did not run through this area (Bergh 1999: 9). However, one should bear in mind that many of these areas may not have been surveyed before.

The type of environment around Kriel is definitely suitable for human habitation. There are ample water sources and good grazing, but natural shelter, building material and fuel are lacking. One would therefore expect that Iron Age people may have utilized the area. This is the same reason why white settlers moved into this environment later on.

At the beginning of the 19th century the Phuthing, a South Sotho group, stayed to the east of where Kriel is situated. During the Difaquane (period of warfare among indigenous tribes leading to widespread scattering of people) they fled to the south (Bergh 1999: 10-11, 109).

During the survey no indication of Iron Age settlement was identified.

Historical Age

The Historical Age started with the first recorded oral histories in the area. It includes the immigration of people that were able to read and write.

The first white traveler to visit these surroundings was Robert Scoon in 1829. The first Voortrekker groups of Hans van Rensburg and Louis Tregardt also passed close to this area (Bergh 1999: 13-14). The first white farmers only settled here during the late 1850's. By the 1890's this area was inhabited by many white farmers (Bergh 1999: 18-20).

During the Anglo Boer War the Highveld areas saw much action consisting of various skirmishes between Boer and Brit. It however is not possible to indicate how close these came to the Kriel area (Bergh 1999: 54).

All sites found during the survey date to the historical age. These are discussed below.

8.3 Discussion of sites identified during the survey

Thirteen grave sites were identified in the surveyed area, but no other archaeological, historical or cultural sites, structures or objects of any significance were identified. Discussions with local people (farm workers and farmers) indicated that no additional grave sites are present in the surveyed area.

Site 1

This is a graveyard consisting of at least 2 graves. However the vegetation is extremely dense and there probably are more. No grave dressing is visible, but headstones made from stone are visible (Figure 4). Nothing on these stones is legible and the graves therefore should be handled as unknowns.

GPS: 26°11'37"S
29°13'44"E



Figure 4 One of the headstones of one of the graves at site no 1.

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.

With graves it usually is best to incorporate them into the development plan for the mine. The graveyard should then be fenced off and kept in tact. Access to any descendants should also be allowed.

Should this not be possible the graves will have to be exhumed and the bodies reburied. This is a lengthy process including social consultation in order to find families of the deceased and to obtain their permission.

In the case of graves older than 60 years and those with an unknown date of death (as in this case) an archaeologist as well as an undertaker will have to be part of the team involved. For graves with a date of death of younger than 60 years, only an undertaker is involved.

Site 2

This is a graveyard consisting of at least 10 graves almost adjacent to the first one. Again the vegetation is extremely dense and it was impossible to determine an accurate figure. The site is fenced off and therefore there may not be many more. The farmer indicated that the graves belong to a farmer family who used to stay in a nearby house. The house was demolished years ago (Personal communication: N. Claasen).

In between the vegetation the only visible grave dressing was a cement border and headstone (Figure 5). Nothing was legible on the stone.

GPS: 26°11'37"S
29°13'43"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 5 The headstones of one of the graves at site no 2 is barely visible in the dense vegetation.

Site 3

This is a graveyard with 4 graves next to the farm house on the farm Roodepoort. The site is fairly neat and fenced off and presumably there are not more graves. The graves have granite borders and headstones (Figure 6 – 7).

It is presumed that all the headstones are legible, but two of them have fallen down and they were too heavy to lift in order to read the information. The other two are a double grave belonging to two children, Louis de Wet who died in 1954 and Johanna de Wet who died in 1957.

GPS: 26°12'22"S
29°12'53"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 6 Grave of two children, Louis and Johanna de Wet.



Figure 7 Other graves at site no 3.

Site 4

This is a graveyard with only one grave, situated next to one of the farm houses on the farm Nooitgedacht. The site is fairly neat and fenced off and presumably there are not more graves. The grave is a monumental grave consisting of a granite platform as grave dressing and no headstone (Figure 8).

Information about the deceased is written on the platform (Figure 8). It is the grave of Daniël Stefanus de Wet who died in 1966.

GPS: 26°12'29"S
29°12'00"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 8 Grave of Daniël Stefanus de Wet.

Site 5

This is another graveyard with at least 16 graves. However, due to the dense vegetation it is possible that there are many more. The site is situated underneath power lines and on the boundary between the farms Roodebloem and Nooitgedacht. Although none were seen on Roodebloem's side of the fence, the farmer indicated that the graves are on both sides of the fence (Personal communication: W. Pretorius). The area is fenced off by a wire fence which also gives the impression that there may be more graves.

Some of the graves have granite borders and others cement borders while some also are dressed with stone, with or without headstones (Figure 9 – 10). Granite and cement headstones are also visible, but the information is mostly illegible. Some graves are fenced in with palisade fences.

Most of the graves have an unknown date and the oldest date visible was 1945. It seems as if the site is still in use.

GPS: 26°13'35"S
29°13'07"E

The development will probably not have a direct impact on the site as the mine would probably not mine where the power lines are situated. However there will be a secondary impact. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 9 Some of the graves at site no 5.



Figure 10 **Site no 5.**

Site 6

Site 6 is a large graveyard with at least 50 graves. However, due to the dense vegetation it is possible that there are many more. Some of the graves have granite borders and others cement borders and dressings while some also are dressed with stone, with or without headstones (Figure 11). Granite and cement headstones are also visible, but the information is mostly illegible.

The only surname that could be made out is Sindane. The oldest known date is 1936 and the youngest 1971. Most of the graves are of an unknown date. It seems as if the site is still in use.

GPS: 26°15'20"S
29°13'52"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 11 One of the granite headstones of a grave at site no 6.

Site 7

This is a graveyard with at least 20 graves. However, due to the dense vegetation it is possible that there are many more. Some of the graves have cement dressings while some are dressed with stone, with or without headstones (Figure 12 - 14). Cement headstones are also visible, but the information is mostly illegible.

The only surname that could be made out is Sibayone. No dates could be determined and the graves must therefore all be regarded as of an unknown date. It seems as if the site is still in use.

GPS: 26°15'26"S
29°13'55"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 12 One of the headstones of a grave at site no 7 seems to be a lower grinder used for grinding maize.



Figure 13 One of the graves with a cement dressing at site no 7.



Figure 14 Stone packed graves at site no 7.

Site 8

This is a graveyard consisting of at least 8 graves. However, due to the dense vegetation it is possible that there are many more. Some of the graves have cement dressings while some are dressed with stone, with or without headstones. Cement headstones are also visible, but the information is mostly illegible. One grave have a green colored grave dressing and headstone (Figure 15).

It is the grave of Fanny Malinga who died in 2001. No other information on any of the other graves was legible. Therefore these should all be regarded as of an unknown date. It seems as if the site is still in use.

GPS: 26°16'06"S
29°14'12"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 15 Grave of Fanny Malinga at site no 8.

Site 9

Site number 9 is a graveyard consisting of at least 2 graves. However, due to the dense vegetation there probably are a few more. In fact the vegetation is so dense that it was not possible to take any photographs.

Some of the graves have cement dressings while some are dressed with stone, with or without headstones. Cement headstones are also visible, but the information is illegible. Therefore these should all be regarded as of an unknown date.

GPS: 26°12'10"S
29°11'41"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.

Site 10

This is a graveyard consisting of at least 15 graves. However, due to the dense vegetation it is possible that there are many more. Almost all of the graves are dressed with stone, with or without headstones. One grave has a cement border and headstone (Figure 16). The information on the headstones is illegible and no dates are visible.

GPS: 26°11'38"S
29°11'31"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 16 Grave with cement border and headstone at site no 10.

Site 11

This is a graveyard consisting of at least 35 graves. However, due to the dense vegetation it is possible that there are many more. Almost all of the graves are dressed with stone, with or without headstones. Some have cement borders and headstone and one a granite border and headstone (Figure 17 - 18).

The only legible surname is Mahlangu. The information on most of the headstones is illegible and no dates are visible.

GPS: 26°11'22"S
29°11'49"E

The development will have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 17 Grave with stone dressing at site no 11.



Figure 18 Granite headstone at site no 11.

Site 12

This is a graveyard consisting of at least 9 graves, of which two are double graves. It therefore contains the remains of at least 11 people. However, due to the dense vegetation it is possible that there may be more. Some of the graves have cement dressings and headstones whereas others have granite dressings and headstones (Figure 19).

Most of the graves are for members of the Holtzhausen family. One grave indicates that the children of the Opperman family is buried there. The information on some of the headstones is illegible and no dates are visible. The oldest date is 1905 and the latest 1952.

GPS: 26°12'45"S
29°07'15"E

The development will not have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 19 Graves at site no 12.

Site 13

This is a graveyard consisting of at least 5 graves. However, due to the dense vegetation it is possible that there are many more. One of the graves has a granite headstone and border. The others have cement borders and headstones (Figure 20).

The only legible surname is Mahlangu and the date on this grave is 1984. The information on most of the headstones is illegible apart from a date of 1958, no dates are visible.

GPS: 26°12'45"S
29°07'30"E

The development will not have a direct impact on the site. Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance.



Figure 20 Grave of Maria Mahlangu at site no 13.

9. POTENTIAL FATAL FLAWS AND SIGNIFICANT ISSUES OF CONCERN

Although the people spoken to indicated that there are no other graves in the area, there is always a chance that they may not really know. The already-mentioned problem relating to the dense vegetation also may have the result that not all grave or other historical sites have been identified. It simply is impossible to survey every meter, although care was taken that the areas where such sites are most probably found were investigated.

Past experience has proved that single graves are frequently found close to homesteads and scattered in the veldt. Sometimes stillborn babies are buried right next to homesteads. A few homesteads have been identified during the survey. These are still inhabited and may contain human remains. Although the people who reside there were asked in this regard, it is possible that they did not want to share the information due to the sensitivity thereof. If these people are to be moved this is something that should be taken up with them.

The grave yards identified should be plotted on a mine plan in order to see which of them will be directly impacted on by the proposed mining activities as it is not exactly certain if they are all impacted on directly. As recommended these should then either be excluded from the mining area or exhumed and relocated (see recommendations). There will however be a secondary impact on all and therefore the recommendations regarding the fencing in of sites and giving access to descendants will have to be followed.

10. RECOMMENDATIONS AND MITIGATION MEASURES



Figure 21 Location of the thirteen grave yards indicated in the report.

The following is recommended with regards to the mitigation of sites found during the survey:

- Grave yards and graves always have a high cultural significance and needs to be handled with the utmost sensitivity.
- It seems as if 11 of the 13 sites (Figure 21) will be directly impacted on (only site No. 5, 12 and 13 will not be impacted on). However, this needs to be confirmed by the mine. There will however still be a secondary impact as access to the sites may be limited and infrastructure may be very close to the sites.
- With graves it usually is best to incorporate them into the development plan for the mine. Should this be possible, the sites not impacted on directly, should be fenced in and maintained. However, access to any descendants should also be allowed. This may create logistical problems for the mine and therefore this option should be considered very carefully.

- Should this not be possible the graves will have to be exhumed and the bodies reburied. This is a lengthy process including social consultation in order to find families of the deceased and to obtain their permission.
- In the case of graves older than 60 years and those with an unknown date of death an archaeologist as well as an undertaker will have to be part of the team involved. A permit from SAHRA will also need to be obtained. For graves with a date of death of younger than 60 years, only an undertaker is involved.
- The proposed development may continue only after proper implementation of the mitigation measures recommended.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

11. CONSULTATION PROCESS

The following farmers in the area were consulted:

- Johan Opperman
- Wim Pretorius
- Dries Cronje
- David de Wet
- Niel Claasen
- Jaco Schutte

The following farm workers were consulted:

- Sarah Sindane
- Lucas Mashishi
- Emily Mashishi
- Lucy Nthiki
- Peter Mahalangu

12. CONCLUSION

In conclusion it can be stated that the assessment of the indicated area was conducted successfully. Thirteen sites of cultural historical significance have been found. It seems as if ten of them will be directly impacted on and one indirectly. This needs to be confirmed by the mine.

All thirteen sites are grave yards dating to the recent past. They mostly contain graves older than 60 years or with an unknown date, which are all classified as being heritage graves.

The necessary mitigation measures are indicated above. The mining on site may only continue after the mitigation measures have been implemented.

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APPENDIX A

Definition of terms:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

Cultural significance:

- Low A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.