



Archaetnos Culture & Cultural  
Resource Consultants  
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**A REPORT ON A HERITAGE IMPACT ASSESSMENT OF THE APPLICATION TO  
AMEND THE FORZANDO NORTH MINING RIGHT AND ASSOCIATED  
APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO INCLUDE  
PORTION 8 & RE OF THE FARM BANKPAN 225 IS AND THE RE OF THE FARM  
KILLOWEN 465 IS, BETHAL, MAGISTERIAL DISTRICT, MPUMALANGA  
PROVINCE**

For:

***Cabanga Environmental***  
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**REPORT NO.: AE02320V**

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**Also note that the study and report does not guarantee approval from the relevant heritage body. The report must be an independent opinion of the consultant and the responsibility of the consultant ends with submission of the report.**

**The South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report and clients are advised not to proceed with any action before receiving these.**

## EXECUTIVE SUMMARY

Archaetnos cc was appointed by Cabanga Concepts cc t/a Cabanga Environmental to conduct a heritage impact assessment (HIA) for Forzando Coal Mines (Pty) Ltd: Forzando North.

The project consists of expanding the existing Mining Right Area and the development of two new ventilation shafts; an additional processing plant; and associated infrastructure (e.g., access/haul roads, electricity supply and distribution, and slurry and water reticulation pipelines).

This report was compiled in accordance with the National Heritage Resources Act (25 of 1999). The standard methodology for Heritage Surveys was used, and aimed at identification of heritage sites and features. The client indicated the project area, and the site was surveyed via foot and off-road vehicle.

Four sites of importance were noted. The following is recommended:

1. Sites no. 1-3 are all graves. Graves are always regarded as having a high cultural significance. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.
  - Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.
  - The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.
2. For site no. 1 – 3, Option 1 is recommended as these sites will not be directly impacted. However, there always is a secondary impact due to underground mining activities (subsidence etc.). Option 1 includes the writing of a site

preservation management plan.<sup>1</sup> Access to descendants will not be impacted, as the area falls outside the proposed mine infrastructure area.

However, the mine will need to ensure that there is no direct impact to the graves. If this is the case Option 2 will be applicable.

3. Site no. 4 is an old farmhouse and received a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.
4. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site cease immediately and a qualified archaeologist be called in to investigate the occurrence.
5. In this regard the following 'Chance find Procedure' should be followed:
  - *Upon finding any archaeological or historical material all work at the affected area must cease.*
  - *The area should be demarcated to prevent any further work there until an investigation has been completed.*
  - *An archaeologist should be contacted immediately to provide advice on the matter.*
  - *Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.*
  - *SAHRA's APM Unit may also be notified.*
  - *If needed the necessary, permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.*
  - *The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.*
  - *Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.*

It should be noted that it is the client's responsibility to submit this report to the relevant heritage authority.

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<sup>1</sup> It is standard protocol to either recommend option 1 or option 2 for graves. A management plan will address issues, such as accessibility.

**CURRICULUM VITAE**  
**Prof. Anton Carl van Vollenhoven**

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- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
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- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
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**Previous:**

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- *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.
- *2014-2015:* Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria

**OTHER**

- NRF C2 Research rating.
- Has published 40 peer-reviewed and 49 popular articles.

- He has written 13 books/book contributions/conference proceedings .
- Has been the author and co-author of over 1076 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 78 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; 2012-2014; 2018-2021).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2024).

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## DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management. The report complies with the SAHRA 2007 Minimum Standards for *Archaeological Components of Impact Assessment Reports*.



Signed:

Date: 29 May 2023

### LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment  
 CMP – Cultural Management Plan  
 EAP – Environmental Assessment Practitioner  
 EIA – Environmental Impact Assessment  
 HIA – Heritage Impact Assessment  
 PIA – Palaeontological Impact Assessment  
 SAHRA – South African Heritage Resources Agency

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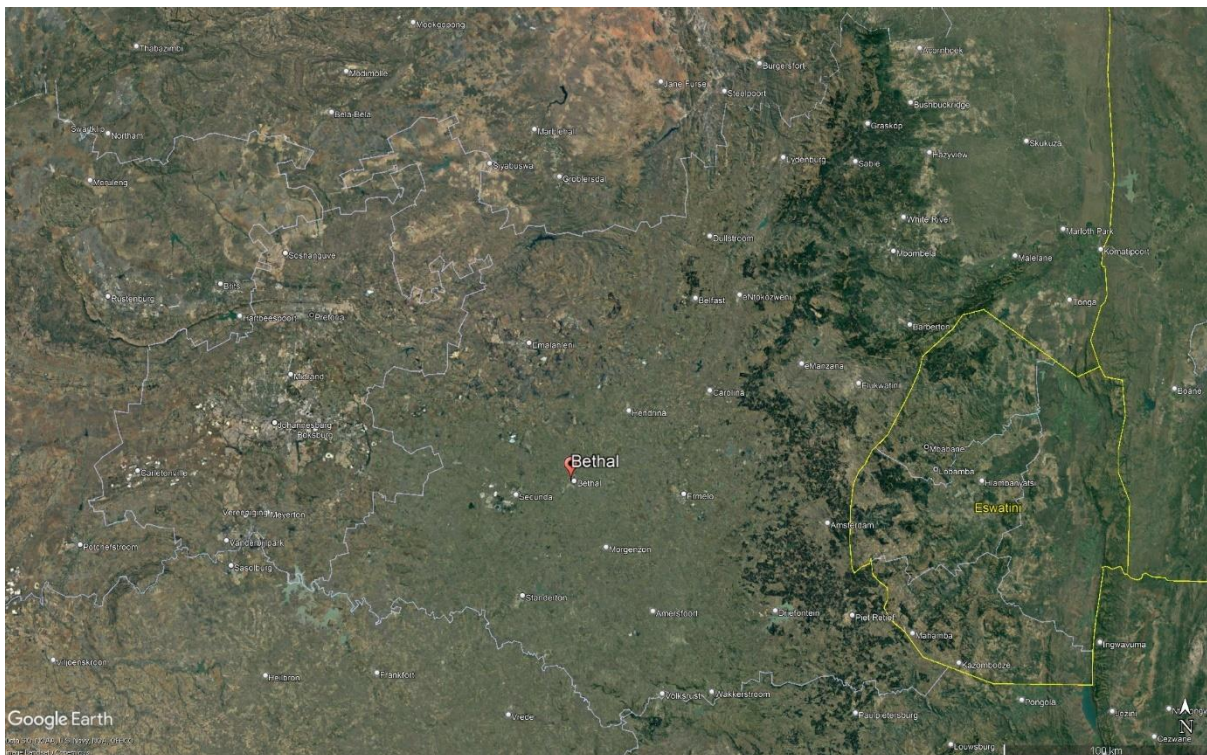
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## 1. INTRODUCTION

Archaetnos cc was appointed by Cabanga Concepts cc t/a Cabanga Environmental to conduct a Heritage Impact Assessment (HIA) for Forzando Coal Mines (Pty) Ltd's Forzando North Bankpan and Killowen Project. The project area lies within the Mpumalanga Province within the Bethal Magisterial District (Figure 1-2).

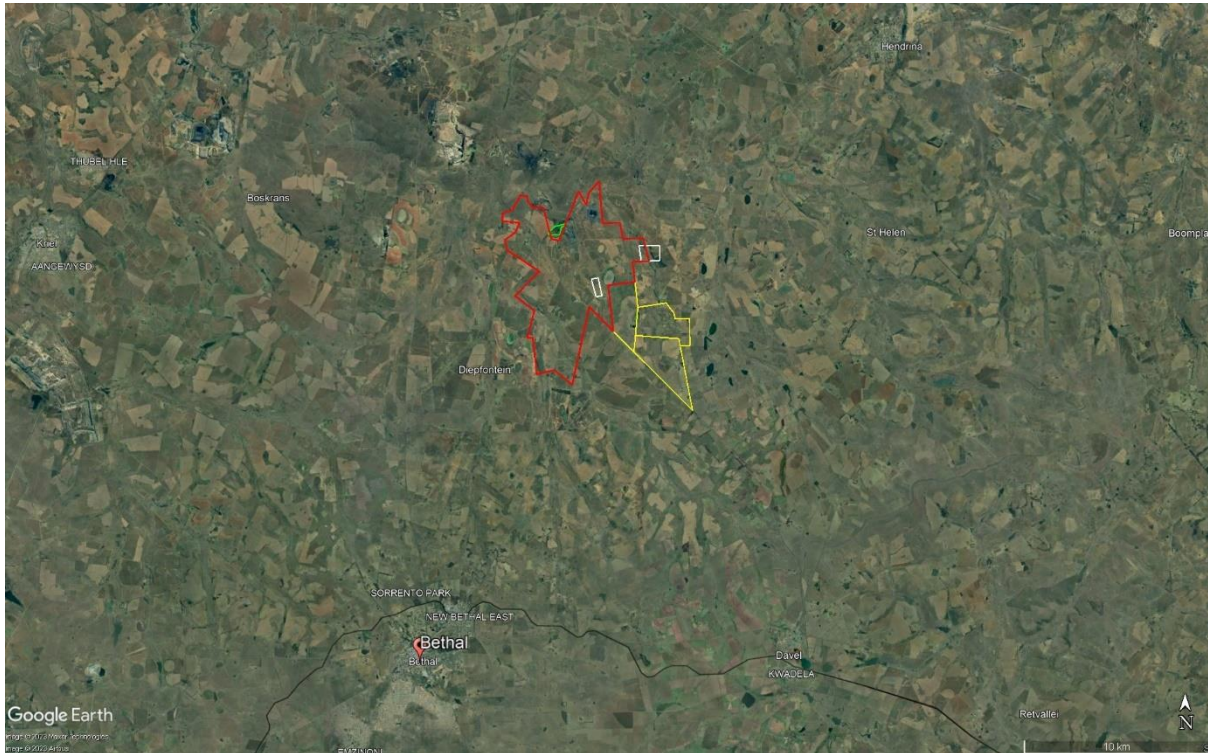
The project consists of expanding the existing Mining Right Area; the building of two new ventilation shafts; an additional processing plant; and associated infrastructure (e.g., access/haul roads, electricity supply and distribution, and slurry and water reticulation pipelines). The client indicated the area to be surveyed and the survey was confined to this area (Figure 3).

The HIA was done in accordance with the National Heritage Resources Act (25 of 1999), due to the size of the development. The client indicated the site to be surveyed, which was done via foot and off-road vehicle.

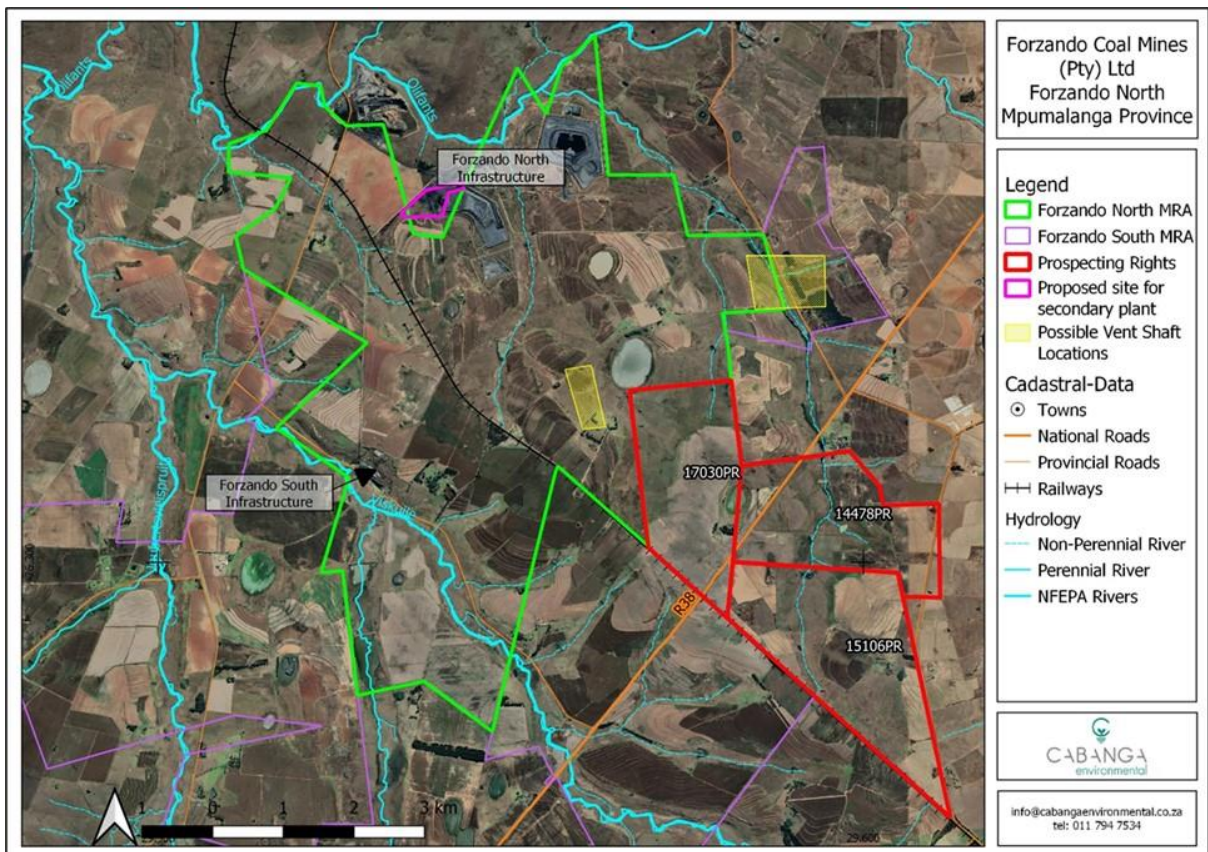


**Figure 1: Location of Bethal in the Mpumalanga Province.**





**Figure 2: Location of the surveyed area in relation to Bethal.**



**Figure 3: Detailed view of the surveyed area (Cabanga Environmental). The project area is marked in red, yellow and purple.**

## **2. TERMS OF REFERENCE**

The Terms of Reference for the study were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located in the surveyed area (see Appendix A).
2. Study background information on the area to be developed.
3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, and aesthetic and tourism value (see Appendix B).
4. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
5. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
6. Review applicable legislative requirements.

## **3. CONDITIONS & ASSUMPTIONS**

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 (Appendix A). 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. These aspects as a collective refers to the character of a site. 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 C).

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 must 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. The surveyed site is largely disturbed by recent human activity, in the form of agricultural and mining activities, and therefore it is seen as a low-risk area to reveal heritage sites.
8. The vegetation coverage in the surveyed area was low and open grass fields and agricultural fields, which had a positive effect on the archaeological visibility.

#### **4. 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).

##### **4.1 The National Heritage Resources Act**

According to the above-mentioned act 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.

The national estate (see Appendix D) includes the following:

- a. Places, buildings, structures and equipment of cultural significance

- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. The different phases during the HIA process are described in Appendix E. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

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Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

## **Archaeology, palaeontology and meteorites**

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- 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 (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

## **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries

f. 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 or 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.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise. Human remains that are less than 60 years old are subject to provisions of the **National Health Act (Act 61 of 2003)** and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Exhumations (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 **National Health Act (Act 61 of 2003)**.

### **4.3 The National Environmental Management Act**

This act (Act 107 of 1998) 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.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

## **5. METHODOLOGY**

### **5.1 Survey of literature**

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

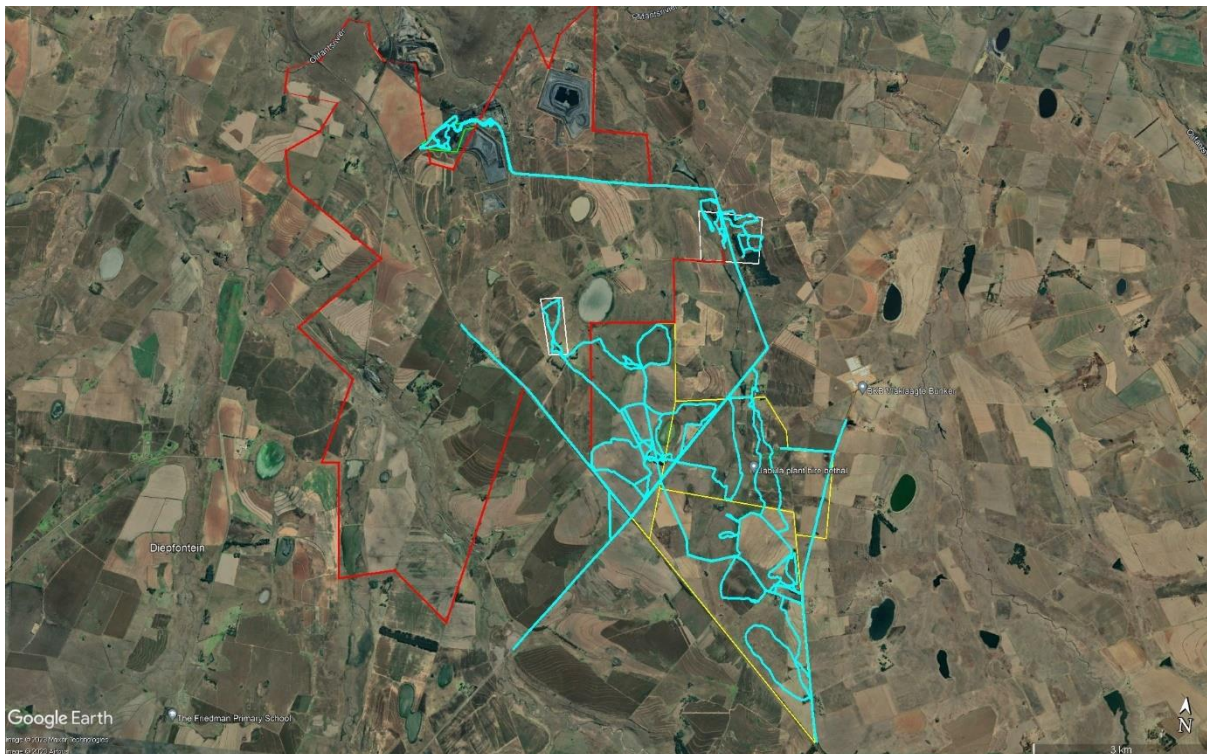
number of heritage reports had been done in the vicinity of Bethal area (SAHRIS database; Archaetnos database).

## 5.2 Physical 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. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>2</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey on foot and covered as much as possible of the area to be studied (Figure 4).

The area was largely disturbed due to recent human activity in the form of agriculture and will thus likely have no heritage features. Active mining (on surface) is taking place only in a small part in the north where the proposed plant will be constructed. The under footing was mostly open, and the vegetation cover is low in height across most of the surveyed area. Accordingly, both the horizontal and the vertical archaeological visibility was influenced positively. The surveyed area is approximately 1 483 Ha in size and the survey took 15 hours to complete.



**Figure 4: GPS track of the surveyed area.**

<sup>2</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.



### **5.3 Oral histories**

People from local communities are interviewed 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.

### **5.4 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 the GPS. The information was added to the description in order to facilitate the identification of each locality.

### **5.5 Evaluation of Heritage sites**

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

## **6. HISTORICAL CONTEXT**

Four sites of cultural heritage significance were located during the survey. Some background information is however given to place the surveyed area and the sites found in a historical context and to contextualize possible finds that could be unearthed during construction activities. Archaetnos has done various surveys in the vicinity of the project site (Archaetnos database).

### **6.1 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; and

- Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

No Stone Age sites are 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, i.e. south-west of the surveyed area (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.

However, no natural shelters were seen during the survey and therefore it is possible that these people did not stay here for long times. The close vicinity of water sources and ample grazing would have made it a prime spot for hunting and obtaining water during the past. Therefore, one may assume that Stone Age people probably would have moved through the area.

## **6.2 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.

No Iron Age sites are indicated during the survey. The closest known Iron Age occurrences to the surveyed area are Late Iron Age sites that have been identified to the west of Bronkhorstspuit and in the vicinity of Bethal (Bergh 1999: 7-8).

The good grazing and access water in the area would have provided a good environment for Iron Age people although building material seem to be reasonably scarce. 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.

## **6.3 Historical Age**

The Historical Age started with the first recorded oral histories in the area. It includes the in-migration of people that were able to read and write. Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore, and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially

regarded as part of the heritage and that detailed studies are needed to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

At the beginning of the 19<sup>th</sup> century the Phuthing, a South Sotho group, stayed to the south-east of Middelburg. The Koni of Makopole stayed to the north-east and the Ndzundza Ndebele to the east. During the Difaquane they fled to the south, south-west and north-west as Mzilikazi's impi moved in from the southeast. During this time the Swazi also moved into this area (Bergh 1999: 10-11; 109).

The first white people to move through this area were the party of the traveller, Robert Scoon who passed through during 1836 (Bergh 1999: 13). Although the Voortrekkers moved across the Vaal River during the 1830's, it seems as if white people only settled here after 1850 (Bergh 1999: 14-15).

During the Anglo Boer War the Highveld areas saw much action consisting of various skirmishes between Boer and Brit (Bergh 1999: 51, 54). It includes skirmishes on the farms Oshoek (4 December 1901), Trigaardsfontein (10 December 1901), Witbank (11 January 1902) and Nelspan (26 January 1902). It, however, is not possible to indicate how close these came to the project area.

One may therefore expect to find farm buildings, structures and objects in the area. Many graveyards from this period have been identified in surrounding areas during past surveys (Archaetos database). Some historical farm buildings was also identified during a previous survey in an adjacent area (Archaetos database). None of these have any contextual link to the current site.

## **7. DESCRIPTION OF THE ENVIRONMENT**

The surveyed areas consist of agricultural lands, open grass fields, and active mining and related infrastructure. The areas that were surveyed is almost entirely disturbed by recent human interventions, mainly including agricultural fields and grass lands for animal grazing (Figure 5-6). The vegetation in the uncultivated areas consists of grasses and other pioneer plants (Figure 7).

The proposed new processing plant area to the north is within the active mining area and is mostly cleared and used for coal stockpiling (Figure 8-9). Dirt roads also run through the surveyed area (Figure 10).

The topography of the area is flat to gently undulating, and the soil is loosely compacted. There are several dams, runoffs and wetlands located in the surveyed area (Figure 11-12).



**Figure 5: View of agricultural land in the surveyed area.**



**Figure 6: View of open grass field in the surveyed area.**



**Figure 7: View of pioneer vegetation growth in the surveyed area.**



**Figure 8: View of recently cleared area within the surveyed area.**



**Figure 9: View of coal storage area in the surveyed area.**



**Figure 10: View of dirt road running through the surveyed area.**



**Figure 11: View of one of the dams located in the surveyed area.**



**Figure 12: View of wetland area in the surveyed area.**

## **8. DISCUSSION OF SITES FOUND DURING THE SURVEY**

Four sites of cultural heritage significance were located during the survey.

### 8.1 Site 1 – Grave

This site consists of a single grave. The grave is located in a thicket of trees at a farmstead (Figure 13). There is no headstone and grave dressings are made of packed bricks. No information was visible and thus the grave is categorised as unknown.

**GPS: 26°17'44.35"S 29°34'48.05"E**



**Figure 13: View of the grave at site 1.**

**Cultural significance Table: Site 1 Grave**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>Medium</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's	Y	<b>High</b>



natural or cultural places or objects		
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 3$$

$$= 18$$

Graves are always regarded as having a high cultural significance. The field rating is Local Grade IIIB. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts).

Secondary impact due to the development activities may still exist and must be managed.

The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

Option 1 is recommended for this site as the site will not be directly impacted. However, there always is a secondary impact due to adjacent mining activities (subsidence etc.). Option 1 includes the writing of a site preservation management plan.<sup>3</sup> Access to descendants will not be impacted, as the area falls outside the proposed mine infrastructure area.

However, the mine will need to ensure that there is no direct impact to the graves. If this is the case Option 2 will be applicable.

## **8.2 Site 2 – Grave**

This site consists of a single grave. The grave is located in a thicket of trees at a farmstead and is about 48 m from site no. 1 (Figure 14). There is no headstone and grave dressing is made of packed bricks. No information was visible and thus the grave is categorised as unknown.

**GPS: 26°17'44.68"S 29°34'49.79"E**

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<sup>3</sup> It is standard protocol to either recommend option 1 or option 2 for graves. A management plan will address issues, such as accessibility.



**Figure 14: View of the grave at site 2.**

**Cultural significance Table: Site 2 Grave**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>Medium</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or	N	-

technical achievement at a particular period		
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 3$$

$$= 18$$

Graves are always regarded as having a high cultural significance. The field rating is Local Grade IIIB. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.

The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds

and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

Option 1 is recommended for this site as the site will not be directly impacted. However, there always is a secondary impact due to adjacent mining activities (subsidence etc.). Option 1 includes the writing of a site preservation management plan.<sup>4</sup> Access to descendants will not be impacted, as the area falls outside the proposed mine infrastructure area.

However, the mine will need to ensure that there is no direct impact to the graves. If this is the case Option 2 will be applicable.

### **8.3 Site 3 – Grave**

This site consists of a single grave. The grave is located next to an agricultural field (Figure 15-16). It is only marked by a headstone which is made of carved stone. No information was visible and thus the grave is categorised as unknown. The grave has been fenced off.

**GPS: 26°17'25.23"S 29°35'5.83"E**



**Figure 15: View of fenced off grave at site 3.**

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<sup>4</sup> It is standard protocol to either recommend option 1 or option 2 for graves. A management plan will address issues, such as accessibility.



**Figure 16: View of overgrown area surrounding the grave at site 3.**

**Cultural significance Table: Site 3 Grave**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>Medium</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 3$$

$$= 18$$

Graves are always regarded as having a high cultural significance. The field rating is Local Grade IIIB. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.

The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

Option 1 is recommended for this site as the site will not be directly impacted. However, there always is a secondary impact due to adjacent mining activities (subsidence etc.). Option 1 includes the writing of a site preservation management plan.<sup>5</sup> Access to descendants will not be impacted, as the area falls outside the proposed mine infrastructure area.

However, the mine will need to ensure that there is no direct impact to the graves. If this is the case Option 2 will be applicable.

#### **8.4 Site 4 – Old Farmhouse remains**

This site consists of the remains of an old farmhouse of about 18 m long and 16 m wide with at least eight rooms. It no longer has a roof and only consists of brick walls (Figure 17).

**GPS: 26°16'52.47"S 29°33'46.72"E**

The site likely is older than 60 years, but without artefactual evidence this is difficult to determine. It is in a poor state and not very unique.



**Figure 17: Remains of an old Farmhouse at site 4.**

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<sup>5</sup> It is standard protocol to either recommend option 1 or option 2 for graves. A management plan will address issues, such as accessibility.



**Cultural significance Table: Site 4 Old Farmhouse remains**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>Low</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	N	
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>Low</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>Low</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>2 – Low</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information

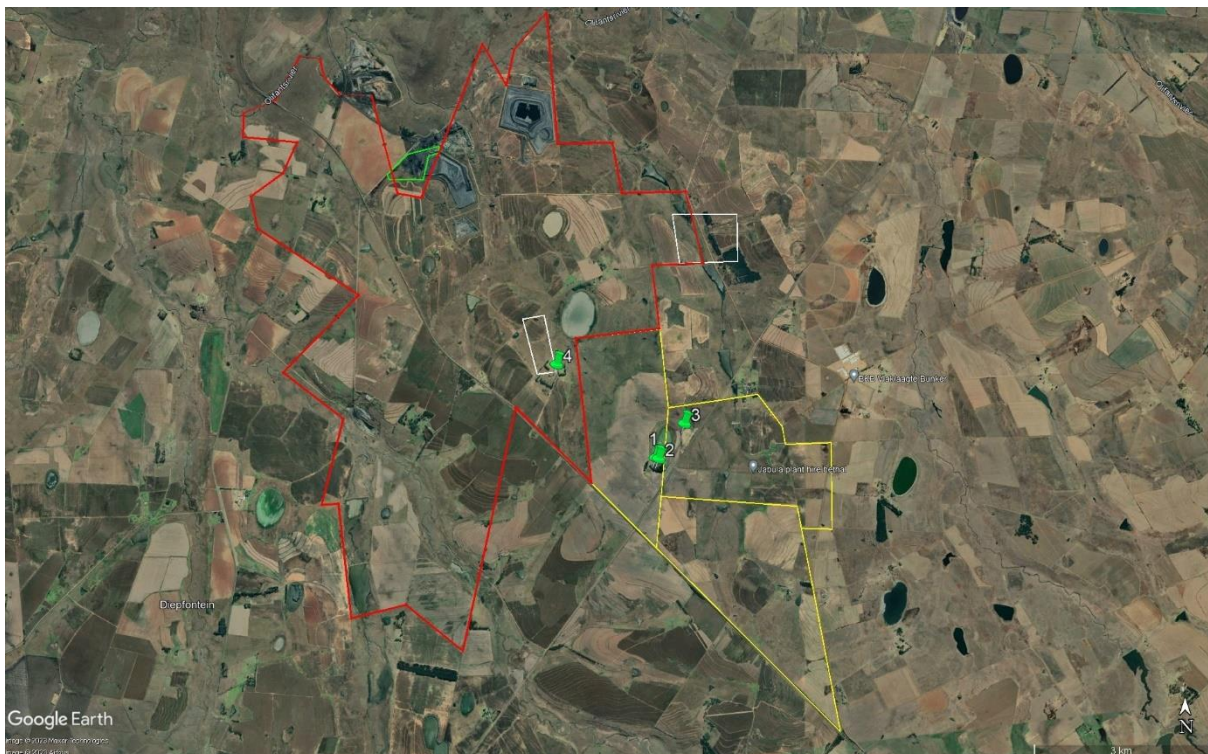
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**  
= 2 (Low) x 1  
= 2

The field rating therefore is Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.

## 9. CONCLUSIONS AND RECOMMENDATIONS

The heritage survey in the indicated area was completed successfully. Four sites were identified during the survey (Figure 18).



**Figure 18: Sites identified during the survey.**

The following is recommended:

1. Sites no. 1-3 are all single graves. Graves are always regarded as having a high cultural significance. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

- Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.
  - The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.
2. For site no. 1 – 3, Option 1 is recommended as the site will not be directly impacted. However, there always is a secondary impact due to adjacent mining activities (subsidence etc.). Option 1 includes the writing of a site preservation management plan.<sup>6</sup> Access to descendants will not be impacted, as the area falls outside the proposed mine infrastructure area.

However, the mine will need to ensure that there is no direct impact to the graves. If this is the case Option 2 will be applicable.

3. Site no. 4 is an old farmhouse and received a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.
4. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site cease immediately and a qualified archaeologist be called in to investigate the occurrence.
5. In this regard the following 'Chance find Procedure' should be followed:
- *Upon finding any archaeological or historical material all work at the affected area must cease.*

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<sup>6</sup> It is standard protocol to either recommend option 1 or option 2 for graves. A management plan will address issues, such as accessibility.

- *The area should be demarcated to prevent any further work there until an investigation has been completed.*
- *An archaeologist should be contacted immediately to provide advice on the matter.*
- *Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.*
- *SAHRA's APM Unit may also be notified.*
- *If needed the necessary, permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.*
- *The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.*
- *Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.*

## 10. REFERENCES

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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**

### **DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:**

- Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
- Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
- Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
- Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
- Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

## APPENDIX C

### SIGNIFICANCE AND FIELD RATING:

#### Cultural significance:

- Negligible – The site has no heritage significance, although it may be older than 60 years.
- Low - A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings. A site with minimal importance which is decreased by its bad state of decay.
- Low-Medium - A site of lesser importance, which is increased by a good state of preservation and contextual importance (e.g. a specific community).
- 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.
- Medium-High - A site that has high importance due to its age or uniqueness, but which decreases due to its bad state of decay.
- High - Any site, structure or feature regarded as important because of its age or uniqueness. Also, any important object found within a specific context.
- Very High - A site of exceptional importance due to its age, uniqueness and good state of preservation.

#### Heritage significance:

- Grade I Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III Other heritage resources of local importance and therefore worthy of conservation

#### Field ratings:

National Grade I significance: The site should be managed as part of the national estate, should be nominated as Grad I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.



Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 50.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 36 and 40.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 35.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

## APPENDIX D

### PROTECTION OF HERITAGE RESOURCES:

#### **Formal protection:**

National heritage sites and Provincial heritage sites – grade I and II  
Protected areas - an area surrounding a heritage site  
Provisional protection – for a maximum period of two years  
Heritage registers – listing grades II and III  
Heritage areas – areas with more than one heritage site included  
Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

#### **General protection:**

Objects protected by the laws of foreign states  
Structures – older than 60 years  
Archaeology, palaeontology and meteorites  
Burial grounds and graves  
Public monuments and memorials

## **APPENDIX E**

### **HERITAGE IMPACT ASSESSMENT PHASES**

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assessing their significance, making comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.