



Archaeetnos Culture & Cultural
Resource Consultants
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**A REPORT ON A CULTURAL RESOURCES SURVEY
ON THE FARMS KLEINKOPJE 15 IS AND STEENKOOLSPRUIT 18 IS,
DOUGLAS COLLIERIES, EMAHLAHLANI DISTRICT
MPUMALANGA PROVINCE**

***DMO PROJECTS
BHP BILLITON
ENERGY COALS SA***

REPORT AE816

by:

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SUMMARY

Archaetnos cc was requested by DMO PROJECTS, BHP Billiton Energy Coal SA to conduct a cultural resources survey in the area known as Douglas Collieries as part of the Douglas Mine Optimization Project. The areas that were investigated included a number of Grave Sites that were previously identified and where graves were relocated from, as well as areas not previously surveyed. Mining operations are being extended and this survey functioned as a measure to ensure that no further graves or other cultural heritage sites that could exist in the area would be negatively impacted by the developments.

The fieldwork undertaken revealed a number of sites of cultural heritage significance on the property, as well as a possible grave on one of the Grave Sites that were previously investigated. These sites will be impacted upon by the development, and some mitigation measures will have to be considered.

The proposed development through these sites can therefore continue, once these measures have been implemented.

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1. INTRODUCTION

Archaeos cc was requested by DMO PROJECTS, BHP Billiton Energy Coal SA to conduct a cultural resources survey in the area known as Douglas Collieries as part of the Douglas Mine Optimization Project. The areas that were investigated included a number of Grave Sites that were previously identified and where graves were relocated from, as well as areas not previously surveyed. Mining operations are being extended and this survey functioned as a measure to ensure that no further graves or other cultural heritage sites that could exist in the area would be negatively impacted by the developments.

The client indicated the area 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. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Survey sites (i.e. grave sites) that were previously investigated to ensure that no more graves or other cultural heritage resources are present on them
3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
4. Recommend suitable mitigation measures should there be any sites of significance that might be impacted upon by the proposed development.

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. 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.

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 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.

4.2 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.

5. METHODOLOGY

5.1 Survey of literature

A survey of literature was not undertaken in this case, as it was deemed unnecessary. This will form part of the recommended mitigation measures (see Recommendations).

5.2 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.

5.3 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 Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality. Limited photographic documentation was also undertaken.

6. DESCRIPTION OF THE AREA

The area investigated is situated on Douglas Colliery, located on the farms Kleinkopje 15 IS and Steenkoolspruit 18 IS. Douglas Colliery is located in the Emahlaheni District of Mpumalanga Province. The area surveyed forms part of the Douglas Mine Optimization (DMO) Project.

Large portions of the survey area made up of Bluegum plantations, while sections consist of old maize fields and ploughed-up portions. The general topography of the area is flat. Dense vegetation (*kakiebos* and other weeds, shrubs and grass cover) made the survey difficult, and archaeological/site visibility was very low (see **Fig. 1**).



Figure 1

7. DISCUSSION

Earlier work in the area (see **Pistorius 2005**) identified a number of cultural heritage sites, notably 11 grave yards that were mitigated as part of the recommendations put forward in this report. All the graves located on these sites were exhumed and relocated, with the graves older than 60 years of age or those identified archaeologically investigated by Archaetnos cc (see **AE 503 [December 2005]**, **AE 503b [September 2006]** and **AE705 [May 2007]**). Two hundred and seventy six graves were investigated in this manner and relocated.

During the 2008 survey a number of other sites were identified in the area. A discussion of the results of this survey will now follow.

Site 1

The first site consists of the sandstone packed remains (wall foundations) of a small, 4-roomed structure; probably an old farm labour house (see **Fig. 2**). The age of the structure is unknown. It could possibly be related to the graves exhumed and relocated from Grave Site 3 (Mnguni's). Because of dense grass cover, the structure is not highly visible.

The site is located between **26. 05790° S** and **29. 28435° E**. **The cultural significance of the site is low, but because of its possible connection with the grave site limited mitigation measures will be recommended.**



Figure 2

Site 2

Site 2 is the original Grave Site 3 that contained 8 graves of the Mnguni family, exhumed and relocated in May 2007. During the 2008 survey a possible further grave (see **Fig. 3**) was identified. This grave is located between **26. 05725° S and 29. 28211° E**.

Because of the possibility of the existence of further grave/s here some mitigation measures will be recommended.



Figure 3

Site 3

This site is the most significant of the heritage resources in the development area, and is located on the Wolwekrans section of the mine. It consists of a number of stone walled circular enclosures (**Fig.4-6**), representing a single settlement unit containing livestock and hut enclosures. Between 10 and 15 structures could be represented by the remains. The site possibly dates to Late Iron Age (LIA) and between the late 17th and mid 19th centuries.

Weathered sandstone, occurring naturally, was utilized in the construction of the stone walled enclosures, and in some cases the enclosures were built right up against the natural sandstone outcrops. The site is basically laid out straight along a sandstone ridge overlooking the Olifantsriver to the northwest. The so-called Central Cattle Pattern (CCP) typical of these LIA settlements is not evident, mainly because of the natural environment the site is located in. The CCP is an ethnographic model used by archaeologists to interpret sites such as these. The basic premise here is that cattle/livestock is the most important commodity for these communities, and therefore they are contained in centrally enclosed kraals around which the huts are placed.

The site is located between **26. 02861° S and 29. 26645° E (start of features); 26.02887° S 29. 26646° E; 26.03000° S 29. 26711° E and 26.03079° S 29. 26732° E (furthest extent).**

Although the initial plan was to put the mine's High Wall (top soil) here, it has been decided to move the wall away from this area and to fence-in the heritage site. However, the secondary impact on the site, as well as the fact that these types of sites are fairly rare on the highveld necessitates the implementation of mitigation measures. **The mines' decision to adjust their development plan and to fence-in the site should be applauded.**



Figure 4



Figure 5



Figure 6

Site 4

This site consists of the remains of an old farmstead, probably related to farm laborers, with a number of other structures such as cement dam and small water reservoir (see **Fig. 7-9**). The age of the structures are difficult to determine, but it is probably less than 60 years of age, dating to mid 20th to late 20th centuries. **The site is not very significant, and the photographic documentation carried out during the survey is deemed sufficient enough.**

The site is located at **26.05588° S 29.27154° E**.



Figure 7



Figure 8



Figure 9

8. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the assessment of the area was conducted successfully. The very dense vegetation made archaeological and other site visibility low, and it is possible that some features or objects of cultural origin might have been missed during the field survey. This would be especially true for graves that are packed with low stone cairns. It should also be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility. Care should therefore be taken when development work commences that if any of these are accidentally discovered, a qualified archaeologist be called in to investigate.

A number of cultural heritage sites and features were however identified. These included a possible grave (Site 2), two farm labor sites (Sites 2 & 4) and a Late Iron Age (LIA) stone walled settlement (Site 3). These sites will be impacted on by the mining operations and **some mitigation measures are therefore proposed. Once this has been undertaken mining operations through these areas can continue.**

The following mitigation measures are proposed for Sites 1 – 3. For Site 4 the photographic documentation undertaken during the fieldwork was deemed sufficient enough mitigation.

Site 1 – Four-roomed Farm Labor Structure

- 1. Cleaning vegetation around remains**
- 2. Detailed photographic documentation**
- 3. Measuring & drawing remains**

Site 2 – Old Grave Site 3

1. **Exhume, archaeologically investigate and relocate possible grave from site**
2. **Test excavate a number of trenches around site (at least 8) around edge of old grave site to determine if there is more possible graves**

It should be noted that a permit from SAHRA, as well as the Undertaker's permit, needs to be applied for before this can be undertaken

Site 3 – Late Iron Age stone walled settlement (Wolwekrans section)

Although this site will not be directly impacted on by any mining operations, there will be secondary impact, i.e. the site will be inaccessible for possible future research as it is located on mine property. **DMO Projects has indicated that they will move their intended High Wall from this area and that the heritage site will be fenced-in. These measures will form part of the mitigation proposed for the site.** The following mitigation measures are furthermore proposed:

1. **That the site be mapped and drawn in detail**
2. **That limited archaeological test excavations be carried out on some of the features to determine the age of the settlement (radiocarbon dating), the cultural identity of the people who settled here (e.g. pottery analysis), the domestic economy of the community (cultural material analysis)**
3. **That the site be interpreted through information plaques placed on points of interest on it**
4. **That a Cultural Heritage Management Plan be drafted for the site**

By doing this the site can be utilized by the mine as a point of interest for visitors to the mine, while such a development will be tangible evidence of BHP Billiton's commitment to preserving our cultural heritage.

It should be remembered that once again permission needs to be obtained from the South African Heritage Resources Agency (SAHRA) to carry out the intended work on the site.

Once all the mitigation measures have been implemented on these sites, mining operations through these areas can continue.

9. REFERENCES

- Pelser, A.J. 2005. **The Archaeological Investigation and Exhumation of graves on the farms Steenkoolspruit 18 IS & Kleinkopje 15 IS, Witbank District, Mpumalanga.** Archaetnos cc: Unpublished Report AE503.
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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.

APPENDIX C

List of Figures:

1. **General view of one of the areas surveyed. Note the dense vegetation that made surveying difficult**
2. **Remains of old 4-roomed farm labor dwelling**
3. **Possible grave on Site 2**
4. **Late Iron Age stone walling on Site 3 – Note natural sandstone outcrop against which walling abuts**
5. **Small circular stone walled enclosure, Site 3**
6. **Large circular enclosure, with smaller enclosures inside. The Olifantsriver is clearly visible to the northwest**
7. **Ruins of old farmstead on Site 4**
8. **Site 4 – Cement dam**
9. **Site 4 – Small water reservoir**