



Archaetnos Culture & Cultural
Resource Consultants
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**A REPORT ON A HERITAGE IMPACT ASSESSMENT STUDY FOR PROPOSED MINING
DEVELOPMENT ON THE REMAINING EXTENT AND PORTION 1 OF KAREEPAN 450
AND REMAINING EXTENT OF PENSFONTEIN 449
KURUMAN REGISTRATION DISTRICT,
SIYANDA DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE**

For:

MISTY FALLS (PTY) LTD

REPORT: **AE938**

by:

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SUMMARY

Archaetnos cc was requested by GCS, on behalf of Misty Falls (Pty) Ltd, to conduct a Heritage Impact Assessment Study for proposed mining development on the remaining extent and Portion 1 of the farm Kareepan 450 and the remaining extent of the farm Pensfontein 449, Kuruman Registration District, Siyanda District Municipality, Northern Cape Province.

The fieldwork undertaken revealed a large number of objects, features and sites of cultural (archaeological or historical) heritage significance in the area of proposed development. **The proposed development can however continue, as long as the recommendations put forward at the end of this report are implemented.**

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1. INTRODUCTION

Archaetnos cc was requested by GCS, on behalf of Misty Falls (Pty) Ltd, to conduct a Heritage Impact Assessment Study for proposed mining development on the remaining extent and Portion 1 of the farm Kareepan 450 and the remaining extent of the farm Pensfontein 449, Kuruman Registration District, Siyanda District Municipality, Northern Cape Province.

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. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.
5. Recommend suitable mitigation measures should there be any sites of significance that might be impacted upon 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. 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, due to factors such as vegetation and the subterranean presence of objects, features and sites. 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 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.

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 desktop study, to place any archaeological sites that might be identified during the survey in a local and general context, was undertaken. A basic description of the various periods in the archaeology of southern Africa is also given.

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, while the area's parameters were determined by vehicle.

5.3 Documentation

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

6. DESCRIPTION OF THE AREA

The area is located on the remaining extent and Portion 1 of the farm Kareepan 450 and the remaining extent of the farm Pensfontein 449, Kuruman Registration District, Siyanda District Municipality, Northern Cape Province (**Figure 1**).

Large portions of the area have been extensively disturbed through recent historical and current opencast mining activities (prospecting). Surrounding properties situated within the same vegetation type are mostly used for mining and livestock farming purposes. The survey concentrated to a large degree on the relatively undisturbed areas. It was indicated to us that mining will concentrate to a

large degree on the hills in the area and that the areas close to the existing farmstead and farming operations will not be affected.

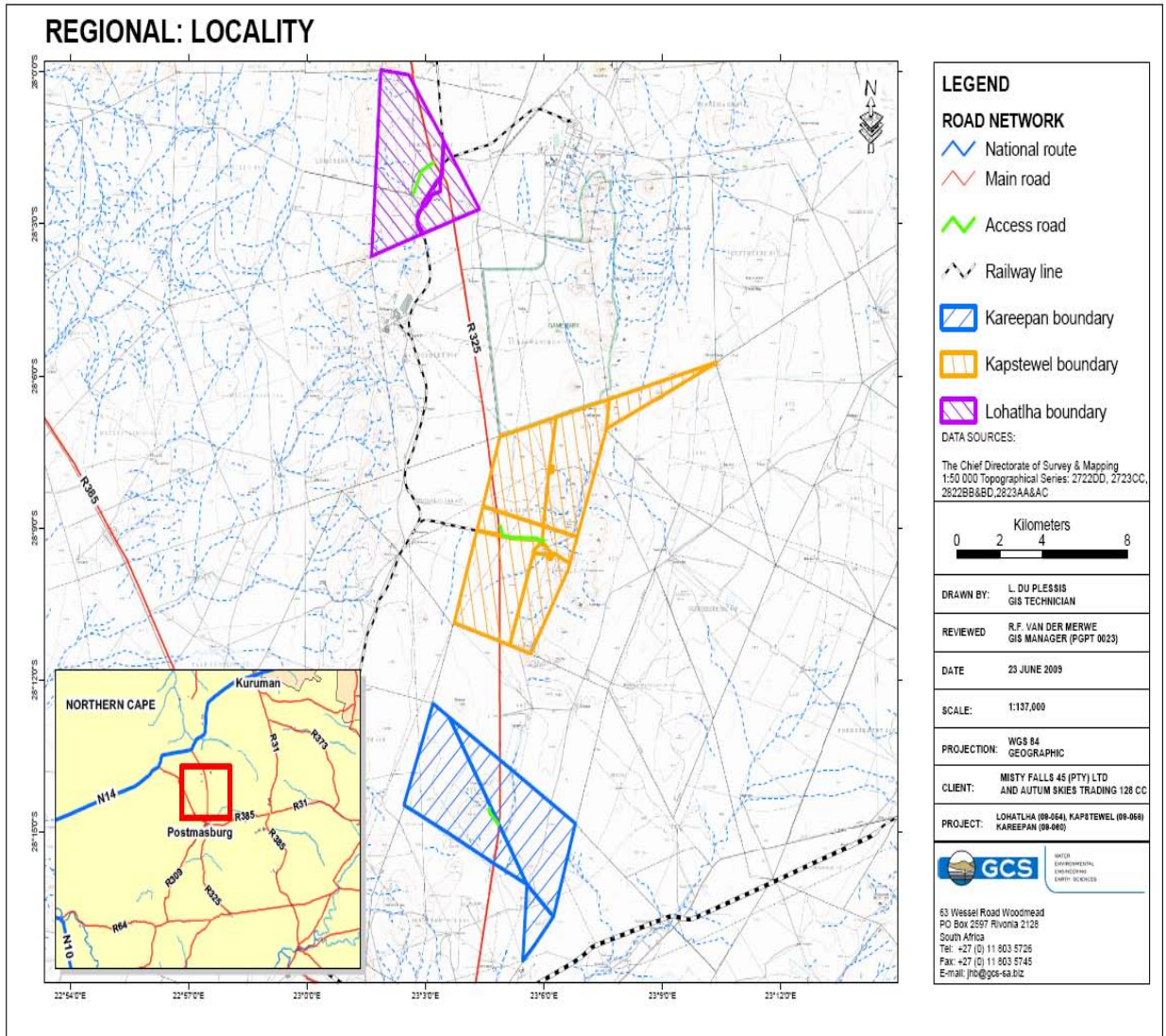


Figure 1: Location of the area – the blue block indicates Kareepan/Pensfontein

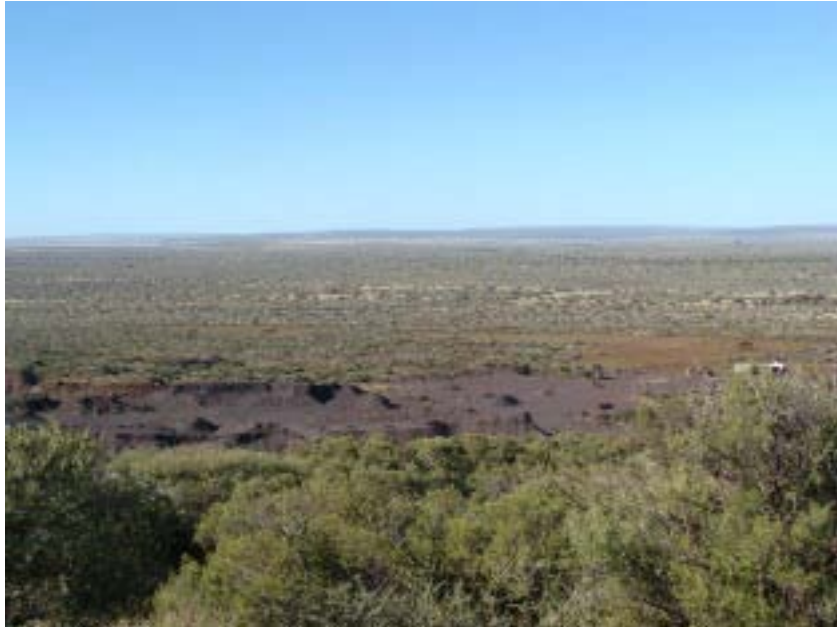


Figure 2: General view of the survey area



Figure 3: Another view of the survey area



Figure 4: View of one of the undisturbed areas

7. DISCUSSION

In order to introduce the reader to the archaeology of the South Africa, a short background to the various time periods relevant to southern African archaeology is given.

7.1 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
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D

A number of Stone Age sites are known in the general geographical area, including Wonderwerk Cave near Kuruman and the Kathu Pan and Kathu Townlands sites (Mitchell 2002:59-70), dating to between the ESA and LSA. A number of single Stone Age tools and larger scatters of stone tools were found during the survey, clear evidence that Stone Age people were active in the area. Some stone tools were also found during the survey of one of the other application areas (Kapstewel).

7.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce 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, features or objects were located in the area during the survey. If any did exist they might have been completely destroyed by recent historical mining activities. The closest known Iron Age sites in the wider geographical area include Doornfontein, Blinkklipkop (near Postmasburg) and the well-known Dithakong near Kuruman (Mitchell 2002: 346).

7.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This included the expeditions of Anderson (1799), Truter and Somerville (1801), Lichtenstein (1805), Cowan & Donovan (1808), Burchell (1811) and Moffat & Archbell (1829) (Bergh 1999: 12-13 & 117-120).

No recent, historical sites were located in the study area.

Site 1 (S 28.26322 E 23.09560)

This site is a scatter of MSA/LSA stone tools and flakes found near a limestone quarry. The site has a low to medium significance, as the tools are scattered around the area and the area might not be directly impacted on by the mining activities. The documentation (recording and photographs taken) done during the survey is deemed sufficient, although, if opencast operations are to take place here the site and the stone age artifacts need to be collected and mapped in more detail.

Probability of Impact: Possible

Extent of Impact: Local (up to 5k from the project site)

Duration of Impact: Long-term

Intensity of Impact: Medium

Significance of Impact: Moderate



Site 1: One of the MSA stone tools found here

Site 2 (S 28.25878 E 23.9148)

This is another scatter of MSA/LSA stone tools and flakes found in the area. The site has a low to medium significance, as the tools are scattered around the area and the area might not be directly impacted on by the mining activities. The documentation (recording and photographs taken) done

during the survey is deemed sufficient, although, if opencast operations are to take place here the site and the stone age artifacts need to be collected and mapped in more detail.

Probability of Impact: Possible
Extent of Impact: Local (up to 5k from the project site)
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate



Site 2: MSA/LSA tools and flakes found on the Site 2 scatter

Site 3 (S 28.25840 E 23.08005)

This is a third scatter of MSA/LSA stone tools and flakes found in the area. The site has a low to medium significance, as the tools are scattered around the area and the area might not be directly impacted on by the mining activities. The documentation (recording and photographs taken) done during the survey is deemed sufficient, although, if opencast operations are to take place here the site and the stone age artifacts need to be collected and mapped in more detail.

Probability of Impact: Possible
Extent of Impact: Local (up to 5k from the project site)
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

8. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the assessment of the area was conducted successfully. A number of Stone Age tools and flakes, as well as larger scatters of stone age artifacts, were found in the area. The survey concentrated to a large degree on the ridges and undisturbed portions in the area, while the already disturbed areas (opencast mining and prospecting), making up a large percentage of the area, were only looked at superficially.

The site found is related to recent historical mining activities in the area and is of low cultural heritage significance. Although the artifacts and stone tool scatters are deemed to have low to medium significance, it is recommended that should the opencast mining activities directly impact on these

areas, the sites be recorded in more detail and the artifacts collected during surface sampling. This needs to be done by a Principal Investigator for Stone Age Archaeology.

It is recommended that the proposed development can continue, taking into consideration the above recommendations. The subterranean presence of archaeological or historical objects, features or sites should also always be considered. If any of these are uncovered during any construction work or other development activities a professional archaeologist should be called in to investigate.

REFERENCES

1:50 000 Topographical Map location of development:: Map provided by client (GCS)

Aerial view of location of development area (Appendix C): produced on Google Earth – Provided by client (GCS)

Site distribution (Appendix C): Produced on Google Earth

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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 – Aerial view of the location of the survey area and site distribution

