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**A REPORT ON PHASE 2 ARCHAEOLOGICAL MITIGATION WORK
ON THE EXISTING DIESEL DEPOT DEVELOPMENT
ON PORTION 22 OF MIMOSA 61HO NEAR SCHWEIZER-RENEKE IN THE
MAMUSA LOCAL MUNICIPALITY, NORTH-WEST PROVINCE**

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February 2020

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SUMMARY

APelser Archaeological Consulting (APAC) was initially appointed by AB Enviro Consult to conduct a Phase 1 HIA for the existing development of a Diesel Depot on Portion 22 of the farm Mimosa 61HO, and the proposed development of a Mill on a portion of the farm Grootboom 83HO. Both study areas were located close to Schweizer-Reneke in the Mamusa Local Municipality of the North-West Province.

A number of archaeological sites and finds were identified in the study area during the May 2019 assessment (**See Report APAC019/58**), and recommendations on their mitigation were provided in this report. In their Final Comments Letter (**dated to the 10th of July 2019**) on the Phase 1 HIA Report for the above developments (**Case ID# 13931**), SAHRA concurred with the findings of the Heritage Specialist regarding the Phase 2 Archaeological Mitigation Measures required. A permit for the work was issued to APAC cc (**Permit ID#3025 & Case ID#4176**) at the end of October 2019. Mr. Tim Forssman of the University of Pretoria's Department of Anthropology & Archaeology will serve as Principal Investigator for the project, while the same Department at UP will be the Curating Institute for the cultural material (Stone Age artifacts) recovered and sampled from the area during the field work.

This report focuses on the surface sampling of Stone Age material located at the Diesel Depot Development site, with the development work at the proposed Mill put on hold by the developer. The sampling work was conducted during the 3rd week of January 2020 with the results of the work in this report. The results of the analysis of the Stone Age material sampled and contained in a Specialist Report will also be included and provided to the client and SAHRA.

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1. INTRODUCTION

APelser Archaeological Consulting (APAC) was initially appointed by AB Enviro Consult to conduct a Phase 1 HIA for the existing development of a Diesel Depot on Portion 22 of the farm Mimosa 61HO, and the proposed development of a Mill on a portion of the farm Grootboom 83HO. Both study areas were located close to Schweizer-Reneke in the Mamusa Local Municipality of the North-West Province.

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The client indicated the location and boundaries of the Project Area, and the fieldwork focused on this area and the archaeological material identified during the 2019 Heritage Impact Assessment.

2. TERMS OF REFERENCE

The Terms of Reference for the Schweizer-Reneke Diesel Depot Phase 2 Archaeological Mitigation were to:

1. *The surface sampling of Stone Age Material from an existing Diesel Depot Development on Ptn22 of Mimosa 22HO.*
2. *The analysis of the collected material by a Stone Age Specialist (Principal Investigator) for inclusion in a Final Phase 2 Report, and*
3. *The curation of the collected material in a recognized Institution (in this case the University of Pretoria's Anthropology & Archaeology Department Collection)*

3. 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).

3.1 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 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. **Sites of Archaeological and palaeontological importance**
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. **Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)**

A Heritage Impact Assessment (HIA) is the process to be followed in order 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 (AIA) only looks at archaeological resources. 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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- 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.

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 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 to) 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)**.

3.2 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.

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.

4. METHODOLOGY

4.1 Survey of Literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

4.2 Field Survey/Mapping/Sampling of Material

The Stone Age material identified at the Diesel Depot development area came from another source (quarry) of gravels used to level the area of the and around the Diesel Depot. The stone tools are therefore not in situ and is scattered around the development area. Five (5) randomly selected sample blocks were therefore measured out around the Diesel Depot area and all the Stone Age artifacts (stone tools) from each block collected. Only artifacts on the surface of these blocks were removed and no digging was done. Blocks 1 – 4 was 5m x 5m in size, with Block 5 being 3m x 3m. The material was bagged and labeled per Block and taken to UP for analysis and curation.

4.3 Oral Histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4 Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. 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. The sampled archaeological material (stone tools) will be properly recorded photographically and provided with accession numbers that will be given by the Department of Anthropology & Archaeology at the University of Pretoria for inclusion and curating in their Archaeological Collection.

5. DESCRIPTION OF THE AREA

APelser Archaeological Consulting (APAC) was initially appointed by AB Enviro Consult to conduct a Phase 1 HIA for the existing development of a Diesel Depot on Portion 22 of the farm Mimosa 61HO, and the proposed development of a Mill on a portion of the farm Grootboom 83HO. Both study areas were located close to Schweizer-Reneke in the Mamusa Local Municipality of the North-West Province.

The existing Diesel Depot development study area is located on Portion 22 of the farm Mimosa 61HO. The study area has been disturbed by the current development and has been cleared of the original vegetation, while gravel from old diamond diggings/tailings has been used to level the area as well. If any cultural heritage sites existed in the area prior to the development activities here it would have been disturbed or destroyed as a result. There are no rocky ridges or outcrops present and visibility on the ground was good.



Figure 1: General location of study area (Google Earth 2020).



Figure 2: Closer view of study area (Google Earth 2020).



Figure 3: General view of the Diesel Depot area.



Figure 4: Another general view of the area.



Figure 5: Another view of the Diesel Depot.

6. DISCUSSION

The sampling of Stone Age material from the Diesel Depot area on Portion 22 of Mimosa 61HO near Schweizer-Reneke in the Northwest Province was done during January 2020, with the aim of collecting a representative sample of stone tools from randomly selected blocks measured out across the study area. Once the sampling was completed the material was given to the Specialist at the University of Pretoria's Anthropology & Archaeology Department for detailed analysis and eventual storage in their Archaeology Collection. The results of this analysis are discussed in brief below, while the Specialist Report will be submitted as a separate document with this report.

Results of the January 2020 Fieldwork & Specialist Analysis

Five (5) Sample Blocks (Blocks 1 – 5) were measured out randomly across the Diesel Depot and photographed prior to artifacts being sampled from their surfaces (no digging was done) and placed in sorting trays. The artifacts were then photographed, counted and bagged per block. These bagged artifacts were then provided to the Stone Age Specialists for detailed analysis and reporting purposes. A GPS coordinate position for each Block was also taken in order to include it on a map of the site. A total of 326 artifacts were collected from the 5 blocks. The details of each Block are as follows:

Block 1: A total of 68 artifacts collected. GPS Location: **S27 13 31.00 E25 21 03.20.**

Block 2: A total of 74 artifacts collected: GPS Location: **S27 13 03.91 E25 21 02.74.**

Block 3: A total of 39 artifacts collected. GPS Location: **S27 13 31.01 E25 21 02.40.**

Block 4: A total of 103 artifacts collected. GPS Location: **S27 13 31.64 E25 21 03.23.**

Block 5: A total of 42 artifacts collected. GPS Location: **S27 13 31.38 E25 02.71.**



Figure 6: Aerial view of study area showing position of the sampling blocks around the Diesel Depot (Google Earth 2020).



Figure 7: Closer view showing location of the 5 blocks around the Diesel Depot (Google Earth 2020).



Figure 8: Block 1.



Figure 9: The artifacts sampled from Block 1.



Figure 10: Block 2.



Figure 11: The artifacts sampled from Block 2.



Figure 12: Block 3.



Figure 13: The artifacts from Block 3.



Figure 14: Block 4.

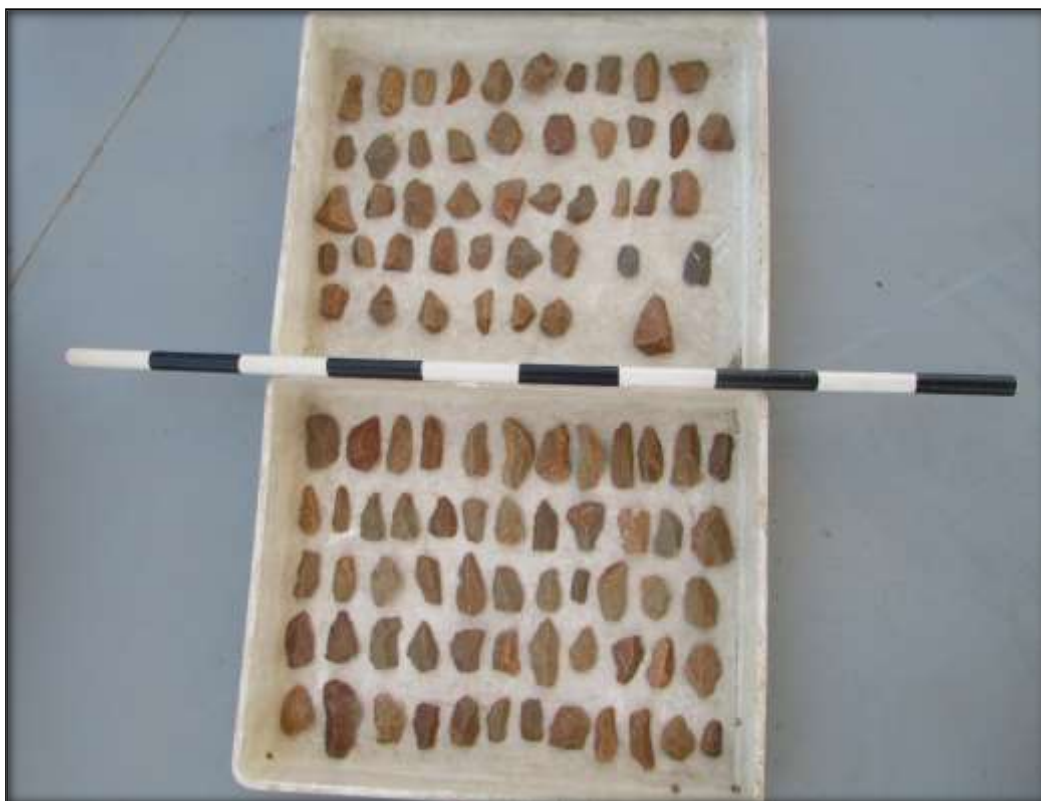


Figure 15: The artifacts sampled from Block 4.



Figure 16: Block 5.



Figure 17: The artifacts from Block 5.

The detailed analysis of the artifacts sampled from the site is contained in a Specialist Report by Forssman & Lotter (See Reference List) that will be submitted separately from this report to both the client and SAHRA. A summary of the results of this analysis will be given below.

“It is not known whether the small artifact sample recovered from the study area is a representative sample of the larger original assemblage from elsewhere. Irrespective, these artifacts were brought in from a non-local source and were then deposited onto the Mimosa 61HO property, where they were then mixed into the local gravels. A high number of artifacts also retain very fresh edge damage on alternate faces of a single edge, which indicates severe disturbance to the artifacts since their original deposition, archaeologically. Despite this though the pieces are fresh to slightly abraded in condition, suggesting their original conditions for preservation are somewhat favorable. Until the original location for these artifacts is found, and a comparative sample of material is collected and analyzed from this location, it is not possible to assess the true technological nature of the assemblage.

The assemblage is very limited in its size and in the types of artifacts that are represented. This in itself also suggests that the artifact sample is non-representative of the original source location. Given the frequent number of blades, convergent and laminar flakes, one would expect to find cores that reflect an associated reduction scheme. Yet, cores are nearly absent from the assemblage and those that do occur do not reflect reduction schemes associated with convergent flake and/or blade removals. The presence of a few

core management pieces does, however, suggest that more advanced knapping has taken place and it is most likely that these cores are retained elsewhere at the original source. The extremely small and non-diverse formal tool sample provides little insight into overall technological strategies. Since other types of artifacts in this assemblage have been shown to be incomplete, one must also assume that the formal tool sample is in a similar state. That said, the presence of several notches is interesting, and these types of artifacts are absent from other known sites elsewhere in the Harts River Valley (Kuman 2001). Perhaps these artifacts reflect a unique adaptation to local landscape and environmental conditions. Comparisons with material from the nearby site of DB3 show no similarities though, other than the presence of pointed flakes that appear similar to this study's convergent flakes (Kuman 2001).

While it is not possible to determine a fixed chronology for the assemblage, a Middle Stone Age designation seems most appropriate given the characteristics of the small assemblage. The presence of a high percentage of blades, convergent flakes leading to points, flakes with laminar dorsal scars and notched pieces indicate that it might belong to a pre-Howiesons Poort Industry (Lombard et al. 2012), although this cannot be strongly supported on present evidence. Either way, it predates c. 40,000 BP”(Forssman & Lotter 2020: p.17-18).

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was initially appointed by AB Enviro Consult to conduct a Phase 1 HIA for the existing development of a Diesel Depot on Portion 22 of the farm Mimosa 61HO, and the proposed development of a Mill on a portion of the farm Grootboom 83HO. Both study areas were located close to Schweizer-Reneke in the Mamusa Local Municipality of the North-West Province.

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The assemblage from Mimosa 61HO is a highly disturbed Middle Stone Age stone tool collection that was introduced to the area in gravels used on site for earthworks. The loss of context and considerable damage to the artifacts has limited detailed interpretations, and studying the assemblage further through additional surface collections at Mimosa 61HO would likely not resolve these issues. Ideally, the source for these gravels needs to be identified so that further destruction of the in situ deposits can be avoided (Forssman & Lotter 2020: p.18).

8. REFERENCES

Aerial views of Study Area Location and Footprint: Google Earth 2020.

Aerial views of Sampling Block locations around the Diesel Depot area: Google Earth 2020.

Pelser, A.J. 2019. **Phase 1 HIA Report for the existing development of a Diesel Depot on Portion 22 of Mimosa 61HO & the development of a Mill on a Portion of Grootpoort 83HO near Schweizer-Renek in the Mamusa Local Municipality, North-West Province.** Unpublished Report APAC cc APAC019/58. For: AB Enviro Consult. May 2019.

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Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.