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**Lydenburg Ext 74  
Heritage Scoping**

**Proposed residential  
development on  
Portion 140 of the  
farm Sterkspruit  
33JT, Thaba Chweu,  
Mpumalanga  
Province**

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**Service provider**



**MATAKOMA - ARM**  
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## EXECUTIVE SUMMARY

As we know from legislation the surveying, capturing and management of heritage resources is an integral part of the greater management plan laid down for any major development or historic existing operation. With the proclamation of the National Heritage Resources Act 1999 (Act 25 of 1999) this process has been laid down clearly. This legislation aims to underpin the existing legislation, which only addresses this issue at a glance, and gives guidance to developers and existing industries to the management of their Heritage Resources.

The importance of working with and following the guidelines laid down by the South African Heritage Resources Agency cannot be overemphasised. This document forms part of the Environmental Impact Assessment for the proposed new Township development on Portion 140 of the farm Sterkspruit 33JT, Thaba Chweu, Mpumalanga Province.

The following outline the findings of the report:

No site of heritage significance was found on the property.

If these recommendations are adhered to there is from a Heritage point of view no reason why the development can not commence.

### **General**

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

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# **1. INTRODUCTION**

Matakoma Heritage Consultants (Pty) Ltd was contracted by Prism Environmental Management Services to conduct a Heritage Scoping Assessment for the new proposed Township development on Portion 140 of the farm Sterkspruit 33JT, Thaba Chweu, Mpumalanga Province.

The aim of the study is to identify all heritage sites, document, and assess their importance within Local, Provincial and national context. From this we aim to assist the developer in managing the discovered heritage resources in a responsible manner, in order to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

The report outlines the approach and methodology utilised before and during the survey, which includes in Phase 1: Information collection from various sources and public consultations; Phase 2: Physical surveying of the area on foot and by vehicle; and Phase 3: Reporting the outcome of the study.

During the survey, no cultural heritage sites of significance were identified. General site conditions and features on site were recorded by means of photos, GPS location, and description. Possible impacts were identified and mitigation measures are proposed in the following report.

This report must also be submitted to SAHRA provincial office for scrutiny.

# **2. APPROACH AND METHODOLOGY**

The aim of the study is to extensively cover all data available to compile a background history of the study area; this was accomplished by means of the following phases.

## 2.1 PHYSICAL SURVEYING

Due to the nature of cultural remains, the majority that occur below surface, a physical walk through of the study area was conducted. MATAKOMA-ARM was appointed to conduct a survey of the proposed development area for the proposed residential development. The total area of impact comprised an area of approximately 2.5ha in total. The study area was surveyed over one day, by means of vehicle and extensive surveys on foot by MATAKOMA-ARM.

Aerial photographs and 1:50 000 maps of the area were consulted and literature of the area were studied before undertaking the survey. The purpose of this was to identify topographical areas of possible historic and pre-historic activity. All sites discovered both inside and bordering the proposed development area was plotted on 1:50 000 maps and their GPS co-ordinates noted. 35mm photographs on digital film were taken at all the sites.

## 3. WORKING WITH LEGISLATION

It is very important that cultural resources be evaluated according to the National Heritage Recourse Act. In accordance with the Act, we have found the following:

- These sites are classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999) section 3 (3).

A place or object is to be considered part of the national estate if it has cultural significance or other special value because of-

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;

- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
  - (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
  - (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
  - (h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
  - (i) sites of significance relating to the history of slavery in South Africa.
- (Refer to Section 9 of this document for assessment)
  - These sites should be managed through using the National Heritage Recourses Act 1999 (Act No 25 of 1999) sections 4,5 and 6 and sections 39-47.
  - Please refer to Section 9 for Management Guidelines.

## 4. ASSESSMENT CRITERIA

This chapter describes the evaluation criteria used for the sites listed below.

The significance of archaeological sites was based on four main criteria:

- **site integrity** (i.e. primary vs. secondary context),
- **amount of deposit, range of features** (e.g., stonewalling, stone tools and enclosures),
- **uniqueness** and
- **potential** to answer present research questions.

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:

- A - No further action necessary;
- B - Mapping of the site and controlled sampling required;
- C - Preserve site, or extensive data collection and mapping of the site; and
- D - Preserve site

Impacts on these sites by the development will be evaluated as follows

## 4.1 IMPACT

The potential environmental impacts that may result from the proposed development activities.

### 4.1.1 Nature and existing mitigation

Natural conditions and conditions inherent in the project design that alleviate (control, moderate, curb) impacts. All management actions, which are presently implemented, are considered part of the project design and therefore mitigate against impacts.

## 4.2 EVALUATION

### 4.2.1 Site Significance

The significance rating scale is as follows:

*HIGH:* Must be mitigated or not impacted on at all.

*LOW - MEDIUM:* May require further work before development can commence.

*NO SIGNIFICANCE:* Do not require mitigation.

### 4.2.2 Certainty

*DEFINITE:* More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

*PROBABLE:* Over 70% sure of a particular fact, or of the likelihood of impact occurring.

*POSSIBLE:* Only over 40% sure of a particular fact or of the likelihood of an impact occurring.

*UNSURE:* Less than 40% sure of a particular fact or likelihood of an impact occurring.



### 4.2.3 Duration

*SHORT TERM:* 0 to 5 years

*MEDIUM:* 6 to 20 years

*LONG TERM:* more than 20 years

*DEMOLISHED:* site will be demolished or is already demolished

Example

*Evaluation*

IMPACT	SIGNIFICANCE	CERTAINTY	DURATION	MITIGATION
Negative	high negative	definite	long	C

## 5. HISTORICAL BACKGROUND OF AREA

As heritage surveys deal with the locating of heritage resources in a prescribed cartographic landscape, the study of archival and historical data, and especially cartographic material, can represent a very valuable supporting tool in finding and identifying such heritage resources.

The historical background and timeframe can be divided into the Stone Age, Iron Age and Historical timeframe. These can be divided as follows:

### ***Stone Age***

The Stone Age is divided in Early; Middle and Late Stone Age and refers to the earliest people of South Africa who mainly relied on stone for their tools.

*Earlier Stone Age:* The period from  $\pm$  2.5 million yrs -  $\pm$  250 000 yrs ago. Acheulean stone tools are dominant.

*Middle Stone Age:* Various lithic industries in SA dating from  $\pm$  250 000 yrs – 22 000 yrs before present.

*Later Stone Age:* The period from  $\pm$  22 000-yrs before present to the period of contact with either Iron Age farmers or European colonists.

### ***Iron Age***

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the Pre-Historic and Historic periods. It can be divided into three distinct periods:

- The Early Iron Age: Most of the first millennium AD.
- The Middle Iron Age: 10th to 13th centuries AD
- The Late Iron Age: 14th century to colonial period.

The Iron Age is characterised by the ability of these early

people to manipulate and work Iron ore into implements that assisted them in creating a favourable environment to make a better living. Iron is a very hard metal to work with compared to gold and copper that have lower melting temperatures and therefore are easier to forge. A draw back of gold and copper are the occurrence of ore, which is relatively limited compared to iron.

In Africa, we proceeded technologically directly from the Stone Age in to the Iron Age where as in Eurasia there was a prolonged Copper and Bronze Age preceding the Iron Age. In southern Africa, metallurgical techniques made their first appearance in a rather advanced state that permitted the smelting of Copper and Iron directly after a Stone Age economic way of live.

This scenario provides a strong argument that metallurgical technology was introduced from elsewhere and did not develop locally. To effectively smelt iron oxide, ore by reduction requires a temperature of at least 1100°C that is 400°C below the metals melting point. To obtain a temperature this high was probably unattainable in ancient furnaces. But the prolonged heating of ore in contact with abundant charcoal, needed to obtain a sufficiently high temperature for the reduction of the oxide ores, enable the iron to obtain enough carbon to make it mild steel. If this mild steel was repeatedly heated and hammered during the forge process, it will harden.

### ***Early Iron Age***

Early in the first millennium AD, there seem to be a significant change in the archaeological record of the greater part of eastern and southern Africa lying between the equator and Natal. This change is marked by the appearance of a characteristic ceramic style that belongs to a single stylistic tradition. These Early Iron Age people practised a mixed farming economy and had the technology to work metals like iron and copper.

A meaningful interpretation of the Early Iron Age has been hampered by the uneven distribution of research conducted so far; this can be partly attributed to the poor preservation of these early sites. **Figure 1** demonstrates the high frequency of Iron Age sites that could be expected in the proposed development area.

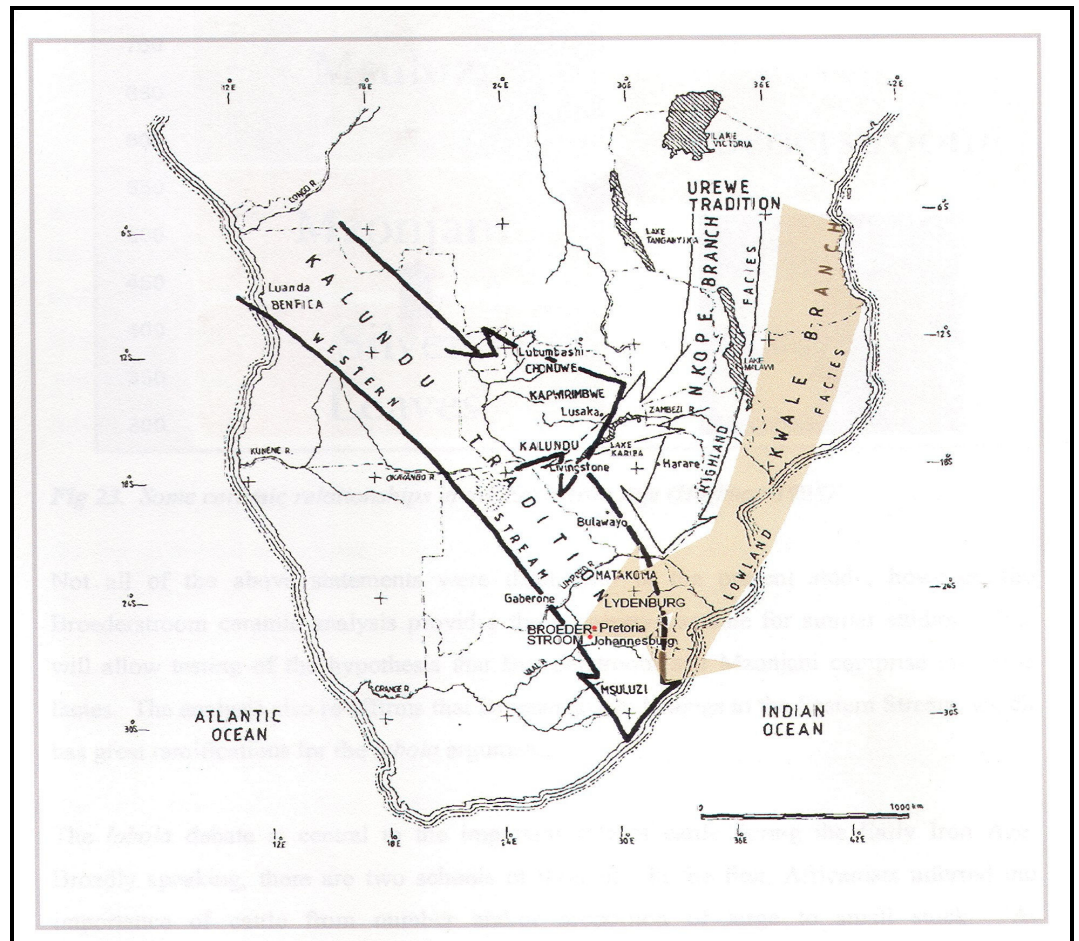


Figure 1: Western extension of Eastern Stream into the interior

### History of Lydenburg Iron Age

The basis of cultural sequence is a combination of ceramic typology, stratigraphy, and radiocarbon dates. The incomplete sequence of the Lydenburg area recognises four phases: Marateng, Eiland, Klingbeil and Lydenburg. In the following section, a short synopsis will be given of the Lydenburg and Klingbeil phases.

*Lydenburg Phase*

Five sites with Lydenburg pottery have been excavated up to 1981. These are the Heads site, Doornkop, Plaston, Langdraai and Klipspruit. All these sites are located on lower valley slopes in interfluve situations at the confluence of two streams. These sites are relatively large measuring between 7 to 15 hectares.

*The Lydenburg Heads Site*

During the discovery of the site in 1964 seven clay heads, pottery, achatina and metal beads, bone and ivory objects and some stone bowls were found. Charcoal found was later radiocarbon dated to between 600-700 AD (Evers, 1981).

The find of the heads were unique and only two other excavations produced fragments of the similar construction, however the Heads site is still the main find spot for these terracotta heads (Evers, 1981)

*Klingbeil Phase*

The sites of the Klingbeil Phase appear to have a similar distribution as the Lydenburg Phase. The Klingbeil Nature Reserve sites and other Early Iron Age sites are essentially in the same topographical location (Evers, 1981).

*Klingbeil 2530AB1 and 2*

The site is situated in the Gustav Klingbeil Nature Reserve. It covers an area of approximately 4 hectares. The site was severely damaged by the construction of a dam spillway in 1976. The sites were covered by a 0.5 to 1 meter layer of colluvium making it impossible to identify from surface features. Both these site belong to the Early Iron Age Tradition (Evers, 1981). (See Map of find sites for survey for position of these sites)

*Settlement location and layout*

Collett (1979) and Marker and Evers (1976) have indicated that settlements were located on the lower foot slopes and spur ends, while a westerly aspect was preferred.

Homesteads can be divided into two groups. The first comprises two concentric circles and is mostly small. The second is more elaborate and larger. It comprises of a central ring with two opposite openings with a number of concentric circles around it. The huts were usually built between the two walls. The outer wall is usually mistaken for a terrace wall and not seen as part of the settlement (Evers, 1981).

Terraces on gentle slopes area often just stone lines possibly serving as boundary markers between fields. On steeper slopes, close-set, well-built walls are found retaining up to a meter of soil (Evers, 1981).

Cattle tracks usually link directly from the outside of the homesteads to the central kraal. Several major cattle tracks are found with each settlement linking several homesteads.

*Ethnographic History*

The Pedi oral tradition refers to the people living near Orighstad and Lydenburg as Koni (Hunt, 1931 from Evers, 1981). '...They were raided early in Pedi history under Chief Moukangoe and later came under Pedi rule in the days of Thulare who reigned in the late eighteenth and early nineteenth centuries. One of Thulare's sons was placed in charge of the Koni near Orighstad. The Pedi west of the Steelpoort River and the Koni were devastated by Mzilikazi in about 1826. Hunt (1931) recorded accounts of retreat to caves and other refuges in the mountains, severe famine, stock loss and cannibalism. Caves near Orighstad and Sabie, and krantz situations near Lydenburg all seem to have been occupied late in the Iron Age...', (Evers, 1981).

### ***Historic Timeframe***

The historic timeframe intermingles with the later parts of the Stone and Iron Age, and can loosely be regarded as times when written and oral recounts of incidents became available.

## **6. SITES OF SIGNIFICANCE**

Portion 140 is currently a residential property with one main dwelling on site. Large parts are covered with grass.

The development on Sterkspruit Ext 38, adjacent to Lydenburg Ext47, does have large Late Iron Age settlements scattered on the site. However no evidence of significant subsurface deposits was found on any of the two sites during geotechnical investigations.

Refer to Locality map for location of other heritage sites in surrounding area.

No site of heritage significance is present on site.

(Refer to **Figure 2** for general view of property.)



*Figure 2: Main dwelling on site*

## **7. ASSUMPTIONS AND LIMITATIONS**

Due to the nature of cultural remains that occur, in most cases, below surface, the possibility remains that some cultural remains may not have been discovered during the survey. Although MATAKOMA-ARM surveyed the area as thorough as possible, it is incumbent upon the developer to inform the relevant heritage agency should further cultural remains be unearthed or laid open during the process of development.

## **8. LEGAL AND POLICY REQUIREMENTS**

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will



apply until a survey has been done and identified heritage resources are formally protected.

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In the new legislation, permits are required to damage, destroy, alter, or disturb them. People who already possess material are required to register it.

The management of heritage resources are integrated with environmental resources and this means that before development takes place heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves, which are older than 60 years and are not in a cemetery (such as ancestral graves in rural areas), are protected. The legislation protects the interests of communities that have interest in the graves: they may be consulted before any disturbance takes place.

The graves of victims of conflict and those associated with the liberation struggle will be identified, cared for, protected and memorials erected in their honour.

Anyone who intends to undertake a development must notify the heritage resource authority and if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the developer's cost. Thus developers will be able to proceed without uncertainty about whether work will have to be stopped if a heritage resource is discovered.

According to the National Heritage Act (Act 25 of 1999 section 32) it is stated that:

An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

- objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, meteorites and rare geological specimens;
- visual art objects;
- military objects;
- numismatic objects;

- objects of cultural and historical significance;
- objects to which oral traditions are attached and which are associated with living heritage;
- objects of scientific or technological interest;
- books, records, documents, photographic positives and negatives, graphic material, film or video or sound recordings, excluding those that are public records as defined in section 1 (xiv) of the National Archives of South Africa Act, 1996 ( Act No. 43 of 1996), or in a provincial law pertaining to records or archives; and
- any other prescribed category.

Under the National Heritage Resources Act (Act No. 25 of 1999), provisions are made that deal with, and offer protection, to all historic and pre-historic cultural remains, including graves and human remains.

- Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

- Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are

situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation. If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

## 9. ASSESSMENT AND RECOMMENDATIONS

*A locality map is provided in **Annexure A***

There is from a Heritage point of view no reason why the development can not commence.

### **General**

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

## **10. LIST OF PREPARES**

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## **11. REFERENCES**

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# **ANNEXURE A:**

## **Locality Map**

## Portion 140 Sterkspruit Locality Map

