

HERITAGE SCOPING REPORT

For the Nomamix (Pty) Ltd Non-invasive Prospecting - Maresburg, Limpopo

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Environmental Management Assistance (Pty) Ltd

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EXECUTIVE SUMMARY

Beyond Heritage was appointed to conduct a Heritage Desktop Study in support of the prospecting application by Nomamix (Pty) Ltd for Platinum Group Metals on the Farm Mareesburg 8 JT, in the magisterial district of Fetagoma Tubatse, Limpopo.

The proposed prospecting is non-invasive and include the following main techniques:

- Data search, field mapping and desktop studies;
- Logging and sampling historical core; and
- Scoping and (pre) feasibility studies.

The Project area is vast, measuring 2133.29 ha and since prospecting is non-invasive a detailed pedestrian survey is not feasible at this point. The aim of the scoping phase is to assess the study area at a desktop level with a brief site visit to compile a background history of the study area, to identify possible key heritage issues to be addressed if invasive prospecting becomes necessary and heritage issues that should be avoided during development. Key findings of the assessment include:

- In anticipation of other mining activities in the greater study area, archaeologists have completed numerous heritage surveys including Huffman & Schoeman 2001, 2002 a and b; van Schalkwyk 2005; Roodt 2003a, 2003b, 2003c, 2005, 2008a, 2008b; Van der Walt & Fourie 2006; Van der Walt & Celliers 2009; Van der Walt 2009; 2016 and Pistorius 2007, 2010, 2011 for various Environmental Impact Assessment Reports (EIAs) and Environmental Management Programmes (EMPs). These studies provide a good understanding of the archaeology of the area and use of the wider landscape. Since 2001, heritage surveys have recorded more than 240 sites in the greater study area, ranging from the Middle Stone Age to the recent households of farm labourers and tenants.
- Portions of the study area was assessed by Huffman and Van der Walt (2012) and by Van der Walt and Fourie (2006), and the surveys recorded numerous sites ranging from the Stone Age, the Iron Age, Burial sites and recent occupational areas;
- Several grave sites occur throughout the study area and should be left *in-situ*. It should be noted that graves can occur anywhere on the landscape and additional graves can be expected;
- According to the SAHRIS paleontological sensitivity map, the area is of insignificant paleontological sensitivity and no further studies are required in this regard.

A Summary of the screening tool and verified sensitivity is indicated below. Based on the non-invasive nature of the proposed project, no impacts are expected on heritage resources in the study area and the project is acceptable from a heritage point of view with the implementation of the recommendations in this report and based on approval from SAHRA.

ASPECT	SCREENING TOOL SENSITIVITY	VERIFIED SENSITIVITY	OUTCOME STATEMENT/PLAN OF STUDY	RELEVANT SECTION MOTIVATING VERIFICATION
Cultural Heritage	Low to high	Medium to high	Prior to invasive activities the impact areas should be	Section 7.1.

ASPECT	SCREENING TOOL SENSITIVITY	VERIFIED SENSITIVITY	OUTCOME STATEMENT/PLAN OF STUDY	RELEVANT SECTION MOTIVATING VERIFICATION
			subjected to the heritage walkdown.	
Palaeontology	Medium	Low	No further studies are required.	Section 7.2.

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ABBREVIATIONS

AIA: Archaeological Impact Assessment
ASAPA: Association of South African Professional Archaeologists
BIA: Basic Impact Assessment
CRM: Cultural Resource Management
ECO: Environmental Control Officer
EIA: Environmental Impact Assessment*
EIA: Early Iron Age*
EIA Practitioner: Environmental Impact Assessment Practitioner
EMP: Environmental Management Plan
ESA: Early Stone Age
GPS: Global Positioning System
HIA: Heritage Impact Assessment
LIA: Late Iron Age
LSA: Late Stone Age
MEC: Member of the Executive Council
MIA: Middle Iron Age
MPRDA: Mineral and Petroleum Resources Development Act
MSA: Middle Stone Age
NEMA: National Environmental Management Act
PRHA: Provincial Heritage Resource Agency
SADC: Southern African Development Community
SAHRA: South African Heritage Resources Agency

**Although EIA refers to both Environmental Impact Assessment and the Early Iron Age both are internationally accepted abbreviations and must be read and interpreted in the context it is used.*

GLOSSARY

Archaeological site (remains of human activity over 100 years old)

Early Stone Age (2 million to 300 000 years ago)

Middle Stone Age (300 000 to 30 000 years ago)

Late Stone Age (30 000 years ago until recently)

Historic (approximately AD 1840 to 1950)

Historic building (over 60 years old)

Lithics: Stone Age artefacts

1. INTRODUCTION

Beyond Heritage was appointed to conduct a desktop based scoping assessment for the prospecting application on the Farm Mareesburg 8 JT, in the magisterial district of Fetakgomo Tubatse, Limpopo (Figure 1.1 to 1.3). The aim of the report is to identify possible heritage resources within the Project area and to submit appropriate recommendations with regards to the responsible cultural resources management measures that might be required within the framework provided by Heritage legislation (National Heritage Resources Act (NHRA) 25 of 1999).

1.1 Terms of Reference

The main aim of this scoping report is to determine if any known heritage resources occur within the study area and to predict the occurrence of any possible heritage significant sites that might present a fatal flaw to the proposed project. The objectives of the scoping report were to:

- » Conduct a desktop study:
 - * Review available literature, previous heritage studies and other relevant information sources to obtain a thorough understanding of the archaeological and cultural heritage conditions of the area;
 - * Gather data and compile a background history of the area;
 - * Identify known and recorded archaeological and cultural sites;
 - * Determine whether the area is renowned for any cultural and heritage resources, such as Stone Age sites, Iron Age sites, informal graveyards or historical homesteads.
- » Report

The reporting of the scoping component is based on the results and findings of the desk-top study, wherein potential issues associated with the proposed project will be identified, and those issues requiring further investigation highlighted. Reporting will aim to identify the anticipated impacts, as well as cumulative impacts, of the operational units of the proposed project activity on the identified heritage resources for all 3 development stages of the project, i.e., construction, operation and decommissioning. Reporting will also consider alternatives should any significant sites be impacted on by the proposed project. This is done 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.

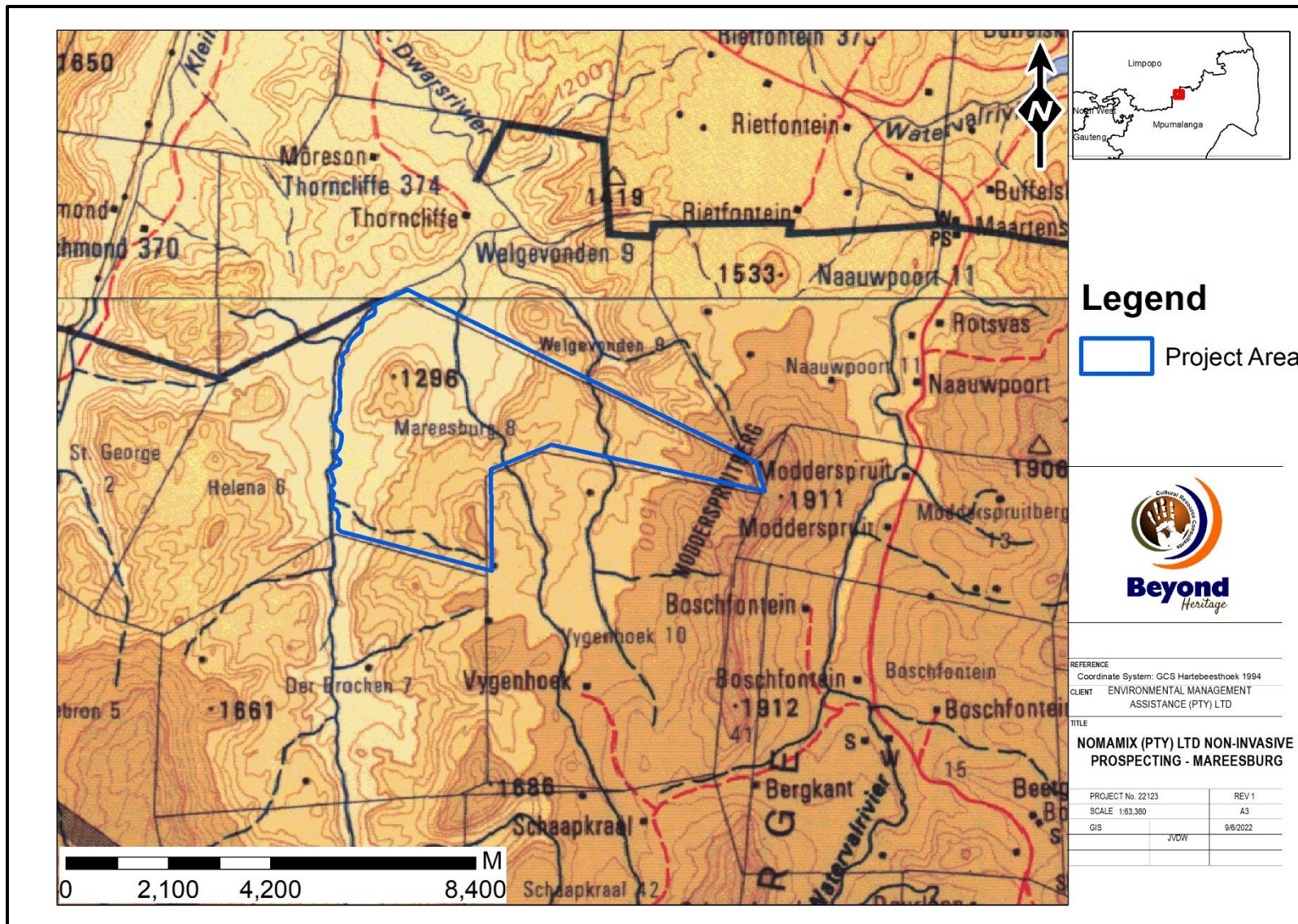


Figure 1.1. Regional setting of the study area.

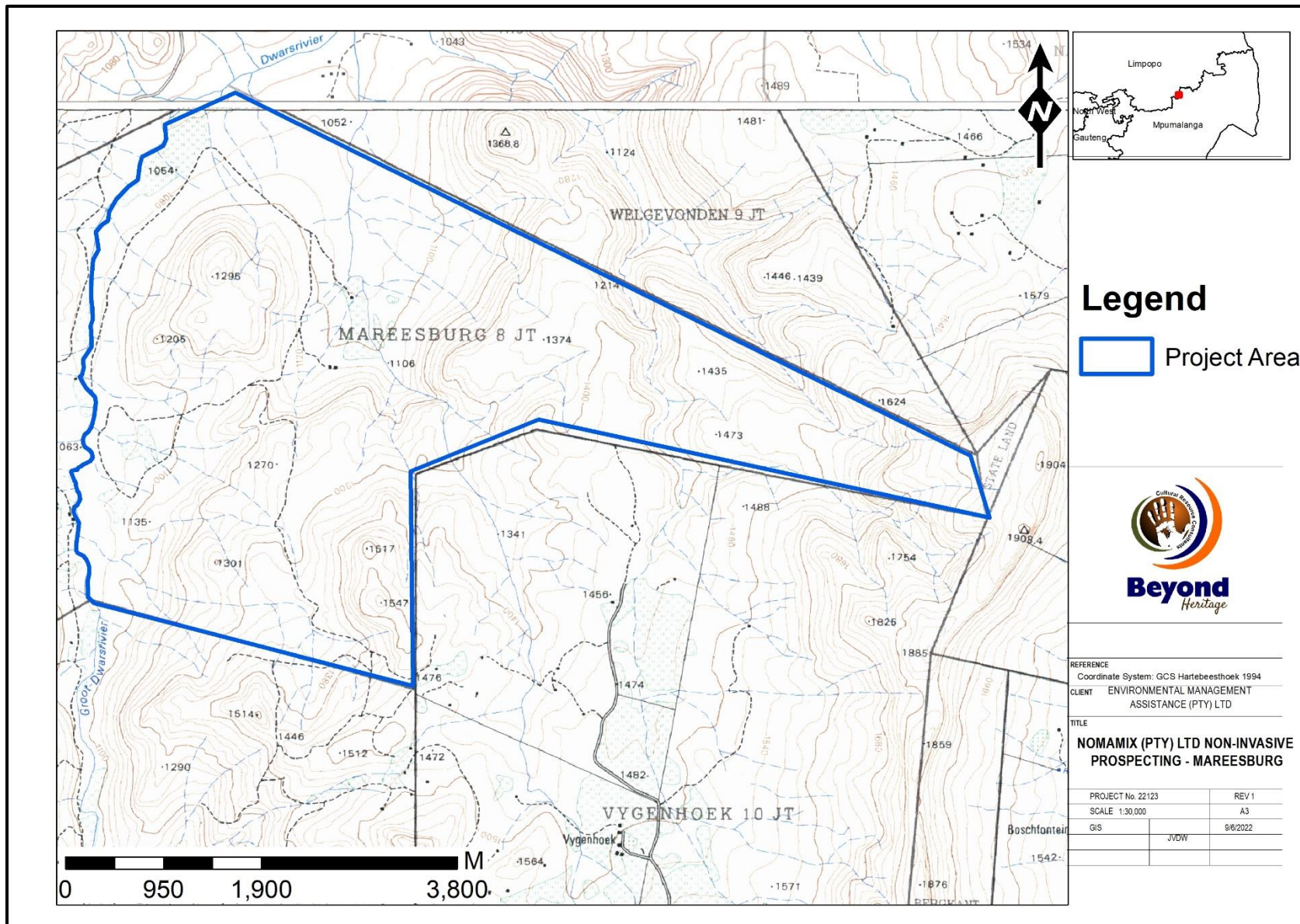


Figure 1.2. Local setting of the study area.

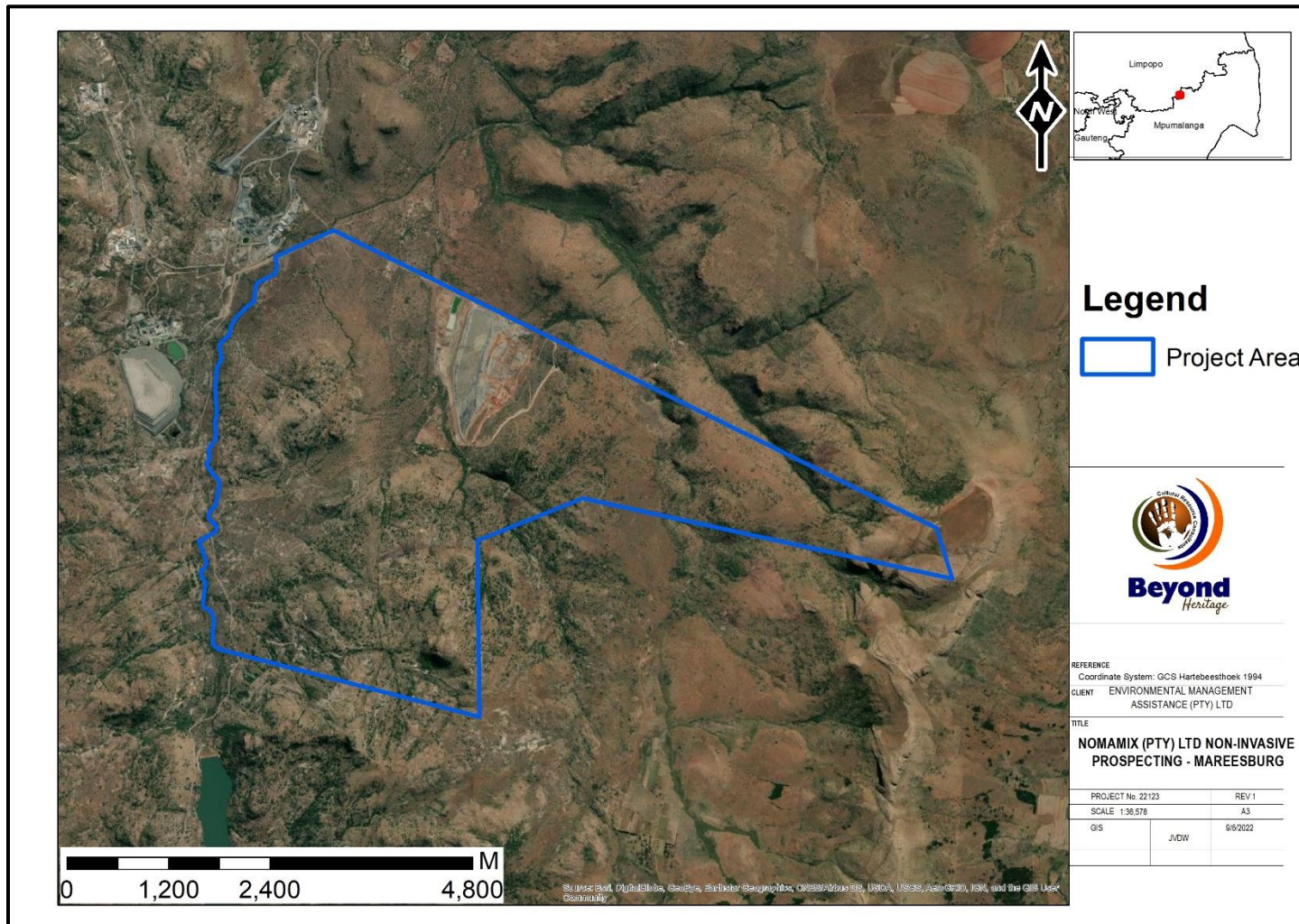


Figure 1.3. Aerial view of the study area.

1.2 Nature of the development

Nomamix (Pty) Ltd (the applicant) is applying for the right to prospect Platinum Group Metals on the Farm Mareesburg 8 JT, in the magisterial district of Fetagoma Tubatse, Limpopo, as indicated in Table 1.

Table 1. Project details

Farm Name:	Portion 0, 1, 2, 6, and 7 of Farm Mareesburg 8 JT
Application area (Ha):	2133.29 ha
Magisterial district:	Fetagomo Tubatse, Limpopo
Distance and direction from nearest town:	Lydenburg is the nearest town, 45km east from the area, Mpumalanga Province
21 digit Surveyor General Code for each farm portion:	T0JT00000000000800000 T0JT00000000000800001 T0JT00000000000800002 T0JT00000000000800006 T0JT00000000000800007
Project activities:	<p>The proposed non-invasive prospecting activities will include the following main techniques:</p> <ul style="list-style-type: none"> • Data search, field mapping and desktop studies; • Logging and sampling historical core; and • Scoping and (pre) feasibility studies. <p>Due to the large amount of previous diamond core drilling conducted in the area, new drilling locations will only be considered after completion of all the sourced historic exploration results.</p>

1.3. Receiving Environment

The area is rich in minerals and the Bushveld Igneous Complex (BIC) is mined for several valuable minerals by various mining companies. The topography of the area comprises rugged mountains and steep sided river valleys and the main drainage via the Groot Dwars River northwards to the Der Brochen Dam and then onto the Steelpoort River, which is a main tributary to the Olifants River. The greater area is characterized by existing mining infrastructure and associated roads and powerlines. From west to east, the steep valley ranges in altitude.

The greater area is characterised by three vegetation types, namely the Sekhukhune Mountain Bushveld, Lydenburg Montane Grassland and Sekhukhune Montane Grassland, with an ecological corridor running along the Groot Dwars River.

2. APPROACH AND METHODOLOGY

The assessment is to be undertaken in two phases, a scoping phase and, potentially, a Heritage Walkdown phase if invasive activities are required at a later stage, this report concerns the scoping phase. The aim of the scoping phase is to cover archaeological data available to compile a background history of the study

area. In order to try and identify possible heritage issues or fatal flaws that should be avoided during development.

This was accomplished by means of the following phases (the results are represented in section 4 of this report):

2.1 Literature search

A literature search was conducted utilising data from published articles on the archaeology and history of the area. The aim of this is to extract data and information on the area in question, looking at archaeological sites, historical sites, and graves of the area.

2.2 Information collection

South African Heritage Resource Information System (SAHRIS) was consulted to collect data from Cultural Resource Management (CRM) practitioners who undertook work in the area to provide the most comprehensive account of the history of the area where possible.

2.3 Public consultation

A full public consultation process will be facilitated by Environmental Management Assistance (Pty) Ltd. Any potential heritage issues raised during this process will be addressed prior to development.

2.4 Google Earth and mapping survey

Google Earth and 1:50 000 maps of the area were utilised to identify possible places where archaeological sites might be located.

2.5 Genealogical Society of South Africa

The database of the genealogical society was consulted to collect data on any known graves in the area.

2.6. Incorporation of previous work

A summary of findings based on previous work in the area is included (Figure 2.1).

3. LEGISLATION

3.1 National Heritage Resources Act

For this Project the National Heritage Resources Act, 1999 (Act No. 25 of 1999 Section3) is of importance and the following sites and features are protected:

- a. Archaeological artefacts, 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. Graveyards 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. 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.)

Section 34 (1) of the Act deals with structures which is older than 60 years. Section 35(4) of this act deals with archaeology, palaeontology, and meteorites. Section 36(3) of the National Heritage Resources Act deals with human remains older than 60 years. Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Even though there is no protocol for Heritage and Palaeontology, both components are defined in the Screening Report for An Environmental Authorization as required by the 2014 EIA Regulations – Proposed Site Environmental Sensitivity and was therefore consulted as well as the required sensitivity verification and Appendix 6.

3.2 Heritage Site Significance and Mitigation Measures

The presence and distribution of heritage resources define a Heritage Landscape. In this landscape, every site is relevant. In addition, because heritage resources are non-renewable, heritage surveys need to investigate an entire Project area. In all initial investigations, however, the specialists are responsible only for the identification of resources visible on the surface.

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. National and Provincial Monuments are recognised for conservation purposes. The following interrelated criteria were used to establish site significance:

- » The unique nature of a site;
- » The integrity of the archaeological/cultural heritage 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;
- » Potential to answer present research questions.

The criteria above will be used to place identified sites with in SAHRA's (2006) system of grading of places and objects which form part of the national estate. This system is approved by ASAPA for the SADC region. The recommendations for each site should be read in conjunction with section 9 of this report.

Table 2. Heritage significance and field ratings

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP. A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP. B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction

4. ARCHAEOLOGICAL AND HISTORICAL INFORMATION AVAILABLE ON THE STUDY AREA

The archaeological record for the greater study area consists of the Stone Age and Iron Age.

4.1. Stone Age

The Stone Age can be divided in three main phases as follows;

- Later Stone Age (LSA); associated with Khoi and San societies and their immediate predecessors. Recently to ~30 thousand years ago
- Middle Stone Age (MSA); associated with Homo sapiens and archaic modern humans. 30-300 thousand years ago.
- Earlier Stone Age (ESA); associated with early Homo groups such as Homo habilis and Homo erectus. 400 000-> 2 million years ago.

Middle Stone Age isolated artefacts are found scattered over the landscape. Finds typically include radial cores, triangular points and flakes. These artefacts are scattered too sparsely to be of any significance (Van der Walt 2016).

4.2. The 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. Most of the decorated pottery found in the study area belongs to the stylistic facies known as Eiland. This style dates to between 1550 AD and 1750 AD and was made by Sotho-Tswana people (Huffman 2007: 186-189). These Middle Iron Age Sites do not have any stone walling associated with them and is found close to cultivatable soil. Some stylistic Marateng pottery were also recorded presumably in association with Late Iron Age stone walled settlements. Marateng pottery dates to between 1650 AD and 1840 AD (Huffman 2007: 207).

4.3. Historical Information

European occupation began in 1845 when trekkers established Ohrigstad and then Lydenburg a few years later. Originally, the trekkers were interested in ivory, but they also needed land and labour for agriculture. Tensions with African communities over these needs rose to such a point that the Trekkers attacked the Pedi capital in 1852. They failed, however, to destroy Pedi authority. Somewhat later, they negotiated a peace with Sekwati and traded cattle for land. Boers then started to establish farms in the region. GS Maree, for example, settled on Mareesburg in 1871. Tensions over land and labour increased again until the ZAR attacked the Pedi capital in 1876: this battle also failed to break Pedi resistance.

Some ephemeral stone walls were recorded in the Booyensdal Mining area (van der Walt 2018). These walls are inconspicuous and not associated with any particular period. They were mostly built on or near rocky outcrops and are in some instances barely visible as they are covered with grass and vegetation. Several ruins occur in the study area marked by rectangular and linear walls, presumably these sites date to the historical to recent occupation of the study area.

4.4. Anglo-Boer War

The Anglo-Boer War was the greatest conflict that had taken place in South Africa up to date. No sites relating to the war are known to occur in the study area.

4.5. Cultural Landscape

The greater study area is part of an interesting cultural landscape rich in heritage resources dating back to the Stone Age, Iron Age and historical period. This study area has been part of rural township areas that has been developed to some extent and is characterised by township development, road development, previous water infrastructure developments and extensive cultivation.

4.6. General Information

4.6.1. Literature Review

In anticipation of other mining activities in the greater study area, archaeologists have completed numerous heritage surveys including Huffman & Schoeman 2001, 2002 a and b; van Schalkwyk 2005; Roodt 2003a, 2003b, 2003c, 2005, 2008a, 2008b; Van der Walt & Fourie 2006; Van der Walt & Celliers

2009; Van der Walt 2009; 2016 and Pistorius 2007, 2010, 2011 for various Environmental Impact Assessment Reports (EIAs) and Environmental Management Programmes (EMPs). These studies provide a good understanding of the archaeology of the area and use of the wider landscape. Since 2001, heritage surveys have recorded more than 240 sites in the greater study area, ranging from the Middle Stone Age to the recent households of farm labourers and tenants.

The distribution of the sites on the landscape shows different land use patterns. Many agriculturally orientated societies (making Eiland, Leolo and Marateng pottery) built their villages in the valleys near cultivatable alluvium. Others (probably Ndebele) built terraced settlements on basal slopes of the valley edge, while farm labourers usually lived in the valleys as well.

During the 19th Century, farmers lived around the edge of high meadows as a measure of protection. A few Middle Iron Age Eiland sites were also cited in this plateau environment. Grave sites can be expected anywhere on the landscape.

4.6.2. Public consultation

A public participation process is facilitated by Environmental Management Assistance (Pty) Ltd as per the BA process and potential heritage concerns will be addressed prior to development.

4.6.3. Google Earth and The Genealogical Society of South Africa (Graves and burial sites)

No cemeteries are indicated on the database of the genealogical society. Numerous grave and burial sites are on record for the study area as recorded during previous surveys and spatially illustrated in Section 7.

5. PROBABILITY OF OCCURRENCE OF SITES

Based on the above information, it is possible to determine the probability of finding archaeological and cultural heritage sites within the study area to a certain degree. For the purposes of this section of the report the following terms are used – low, medium and high probability. Low indicates that no known occurrences of sites have been found previously in the general study area, medium probability indicates some known occurrences in the general study area are documented and can therefore be expected in the study area and a high probability indicates that occurrences have been documented close to or in the study area and that the environment of the study area has a high degree of probability having sites.

» Palaeontological landscape

Fossil remains. *Low probability.*

» Archaeological And Cultural Heritage Landscape

NOTE: *Archaeology is the study of human material and remains (by definition) and is not restricted in any formal way as being below the ground surface.*

Archaeological remains dating to the following periods can be expected within the study area:

» **Stone Age finds**

ESA: *Low Probability*

MSA: *High Probability*

LSA: *Medium Probability*

LSA –Herder: *Low Probability*

» **Iron Age finds**

EIA: *Medium Probability*

MIA: *High Probability*

LIA: *High Probability*

» **Historical finds**

Historical period: *Medium Probability*

Historical dumps: *Low to Medium Probability*

Structural remains: *Medium to High Probability*

Cultural Landscape: *Medium probability*

» **Living Heritage**

For example, rainmaking sites: *Medium Probability*

» **Burial/Cemeteries**

Burials over 100 years: *High Probability*

Burials younger than 60 years: *High Probability*

Subsurface excavations including ground levelling, landscaping, and foundation preparation can expose any number of these.

6. ASSUMPTIONS AND LIMITATIONS

The study area was not subjected to a detailed field survey, if required this will be conducted in the Heritage Walkdown phase if invasive activities occur. It is assumed that information obtained for the wider area is applicable to the study area and the authors acknowledge that the brief literature review is not exhaustive on the literature of the area. Due to the subsurface nature of cultural deposits, the possibility exists that some features or artefacts may only be discovered/recorded during the survey, similarly the possible occurrence of graves not recorded here, and other cultural material cannot be excluded. This study did not assess the impact on medicinal plants and intangible heritage as it is assumed that these components would be highlighted through the public consultation process if relevant. It is possible that new information could come to light in future, which might change the results of this scoping report.

7. FINDINGS

7.1. Heritage resources

Large sections of the study area used to be cultivated in the past and currently used for grazing and township development. The study area has been largely disturbed and the Department Forestry Fisheries and the Environment (DFFE) screening tool indicated the study area as of low heritage sensitivity with isolated areas of high heritage sensitivity (Figure 7.1). However, the verified sensitivity shows sites of significance (mostly cemeteries) and areas with high heritage potential and is illustrated in Figure 7.2. The sites on record for the proposed study area are mostly derived from Huffman and Van der Walt (2012) Heritage sites and areas of heritage potential are spatially illustrated in Figure 7.2 and outlined in Table 3.

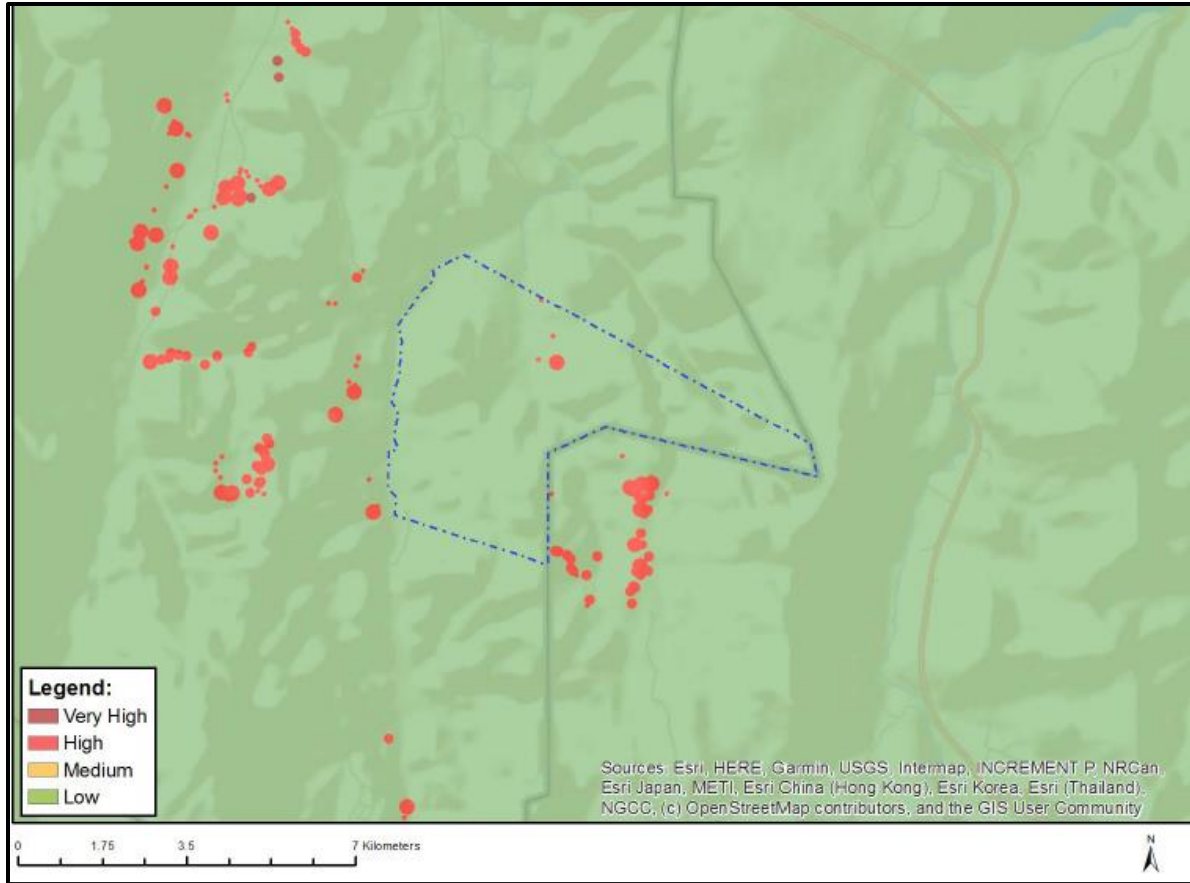


Figure 7.1. Sensitivity of the study area based on the DFFE screening tool. The study area is of low to high sensitivity.

Table 3. Known sites in the study area.

Site No.	Site Name	Location	Site Detail	Source	Significance
AA16	S1	25° 00' 46"S 30° 08' 57.8"E	Stone lines, maize grindstones and pottery marking household of African tenants	Huffman & Schoeman 2002	No Importance
AA17	S2	25° 00' 23.9"S 30° 08' 49.9"E	MIA Eiland or Leolo pottery and slag as well as Marateng pottery	Huffman & Schoeman 2002	Low Significance
AA18	Graves	25° 01' 02"S 30° 09' 00.4"E	Cemetery with three graves (-died 1979), one (E.M. Mankge-died 1967) with new headstone	Huffman & Schoeman 2002	High Social Significance
AA19	S4	25° 01' 00.2"S 30° 08' 48.2"E	Cleared area with stone lines marking household of African tenants	Huffman & Schoeman 2002	No Importance
AA87	Grave	25 00 46.1 30 06 41.8	1 grave	FR05 Stubbs	High Social Significance

AA88a	S2	25° 00' 21.5"S 30° 08' 28.8"E	Stone terraces, upper maize grindstone and sundried brick marking household of African tenants Stone terraces, upper maize grindstone and sundried brick marking household of African tenants	Huffman & Van der Walt 2012	Low Significance
AA88b	S2B	25° 00' 22.5"S 30° 08' 27.8"E	Stone terraces, upper maize grindstone and sundried brick marking household of African tenants Stone terraces, upper maize grindstone and sundried brick marking household of African tenants	Huffman & Van der Walt 2012	Low Significance
AA89	Graves	25° 00' 29.8"S 30° 08' 24.2"E	Cemetery with 5 graves, three with headstones (Mosehla-died 1980; J. Mosehl-died 1975; Methaka-died 1970)	Huffman & Van der Walt 2013	High Social Significance
AA90	S4	25° 00' 13.2"S 30° 08' 31.4"E	Single Single terrace line, lower maize grindstone, upper grindstones on boundary road marking household of African tenants	Huffman & Van der Walt 2012	Low Significance
AA91	S5	25° 01' 00.2"S 30° 08' 34.9"E	Rectangular house foundations, lower maize grindstone and midden marking household of African tenants.	Huffman & Van der Walt 2012	Low Significance

AA92	S7	25° 01' 06.7"S 30° 08' 53.7"E	Well-preserved household of African tenants with terrace lines, house remains, grindstones and midden. Leolo pottery underneath.	Huffman & Van der Walt 2012	High Significance
AA93	S8	25° 00' 38.4"S 30° 08' 38.6"E	MSA artefacts including triangular point, blade and scraper, all made from a black dolerite-like stone.	Huffman & Van der Walt 2012	Not Not in situ and therefore of no importance
AA94a	S9	25° 00' 20 - 21"S 30° 08' 46 - 47"	Stonewalled kraal, rectangular house foundation and lower grindstone marking household of African tenants. Leolo pottery eroding out of the road.	Huffman & Van der Walt 2012	Low Significance
AA95	S10	25° 00' 22.6"S 30° 08' 51.6"E	Scatter of small slag pieces in road upslope of Site AA94.	Huffman & Van der Walt 2012	Medium Significance
AA96	S11	25° 01' 44.9"S 30° 07' 42.2"E	Several stone lines marking household of African tenants	Huffman & Van der Walt 2012	No Importance
AA97	S12	25° 01' 51.6"S 30° 07' 44.9"E	Tenant household in good state of preservation with extant mud walls and front lapa wall	Huffman & Van der Walt 2012	High Significance
AA98	S13	25° 02' 04.9"S 30° 07' 26.5"E	Poor stone tool industry in quartz	Huffman & Van der Walt 2012	No Importance
AA99	S14	25° 01' 41.5"S 30° 07' 27.8"E	Tenants (No further description or significance rating)	Huffman & Van der Walt 2012	No rating

AA100	S15	25° 01' 38.3"S 30° 07' 35"E	Tenants (No further description or significance rating)	Huffman & Van der Walt 2012	No rating
AA101	S16	25° 01' 43"S 30° 07' 36.9"E	Tenants, Lgs, Pots	Huffman & Van der Walt 2012	No rating
AA102	S17	25° 02' 18.3"S 30° 07' 25.1"E	Walls and grindstones marking household of African tenants	Huffman & Van der Walt 2012	Low Significance
AA103	S18	25° 02' 20.3"S 30° 07' 25.1"E	Stone kraal and mud houses marking household of African tenants	Huffman & Van der Walt 2012	Medium Significance
AA104	Graves	25° 02' 24.9"S 30° 07' 27"E	Twelve graves associated with Petrus Mankge	Huffman & Van der Walt 2012	High Social Significance
AA105	Graves	25° 02' 11.9"S 30° 07' 19.9"E	8-9 graves	Huffman & Van der Walt 2012	High Social Significance
AA106	S20	25° 01' 24"S 30° 08' 27.8"E	Lapa wall, midden and house mounds marking household of tenants named Makolani	Huffman & Van der Walt 2012	Low Significance
AA107	S22	25° 00' 13.4"S 30° 07' 48.3"E	Tenants	Huffman & Van der Walt 2012	No Importance
AA107b	S22k	25° 00' 15.4"S 30° 07' 42.9"E	Kraal	Huffman & Van der Walt 2012	No Importance
AA108	S23	25° 01' 15.9"S 30° 08' 36"E	LIA Leolo pottery in old ploughed field next to Mareesburg house	Huffman & Van der Walt 2012	Low Significance
AA109	S24	25° 01' 15.9"S 30° 08' 36"E	MIA Eiland	Huffman & Van der Walt 2012	No Rating
AA115	S30	25 00 23.5 30 07 33.4	MIA Eiland	Huffman & Van der Walt 2012	No Rating
AA116	S31	25 00 26.9 30 07 30.6	Tenants (No further description or significance rating)	Huffman & Van der Walt 2012	No Rating

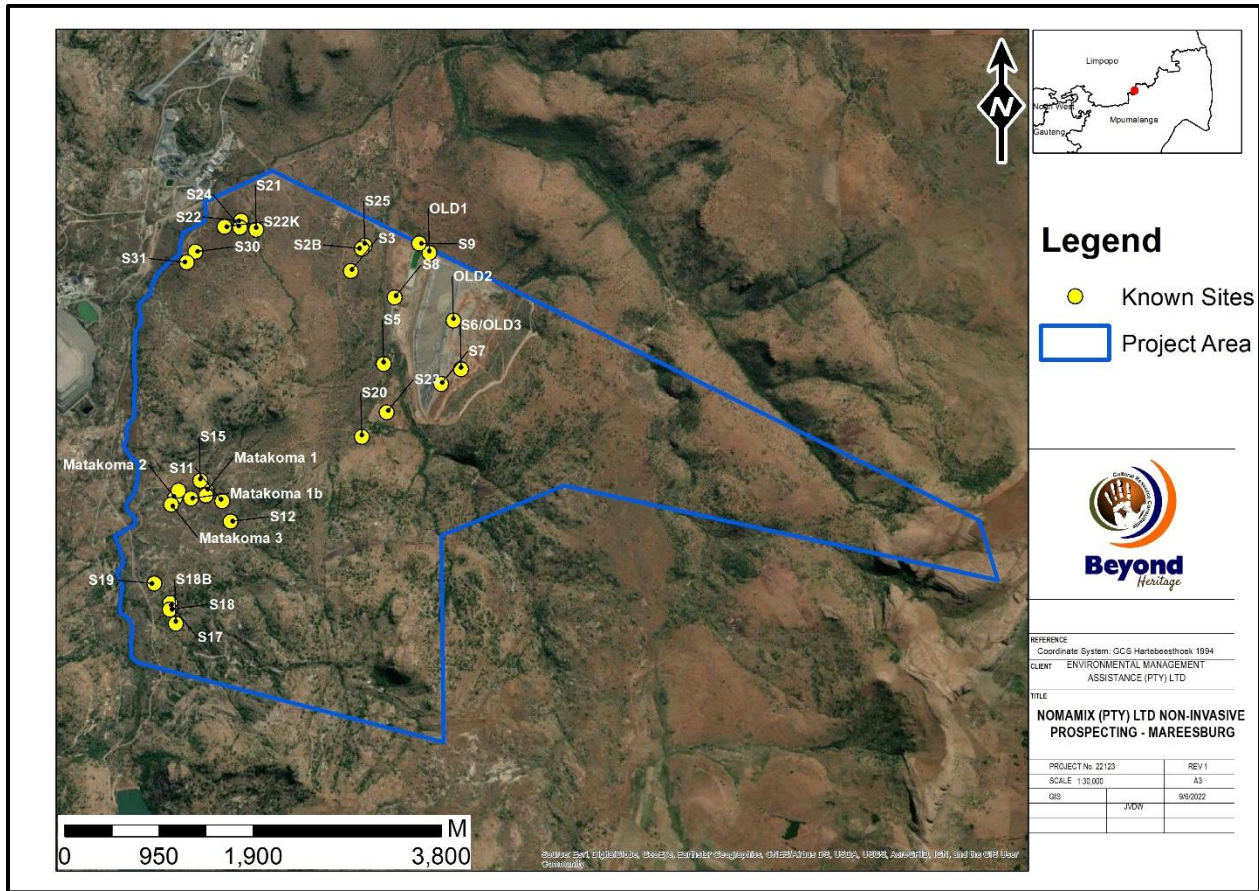


Figure 7.2. Known heritage sites and heritage sensitive areas in relation to the impact area.

7.2. Palaeontology

The DFFE Screening tool (Figure 7.3) indicated the study area to be of medium sensitivity, the study area is indicated to be of insignificant and low palaeontological sensitivity (Figure 7.4) on the SAHRIS paleontological map and no further studies are required for this aspect.

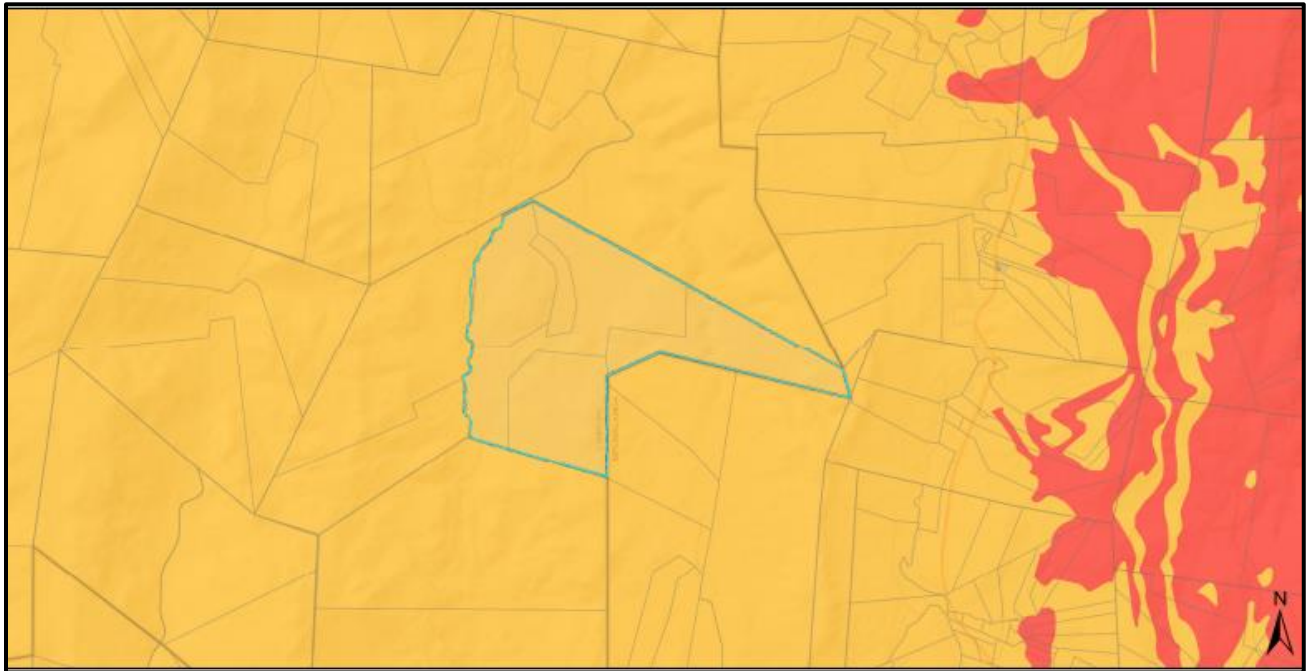
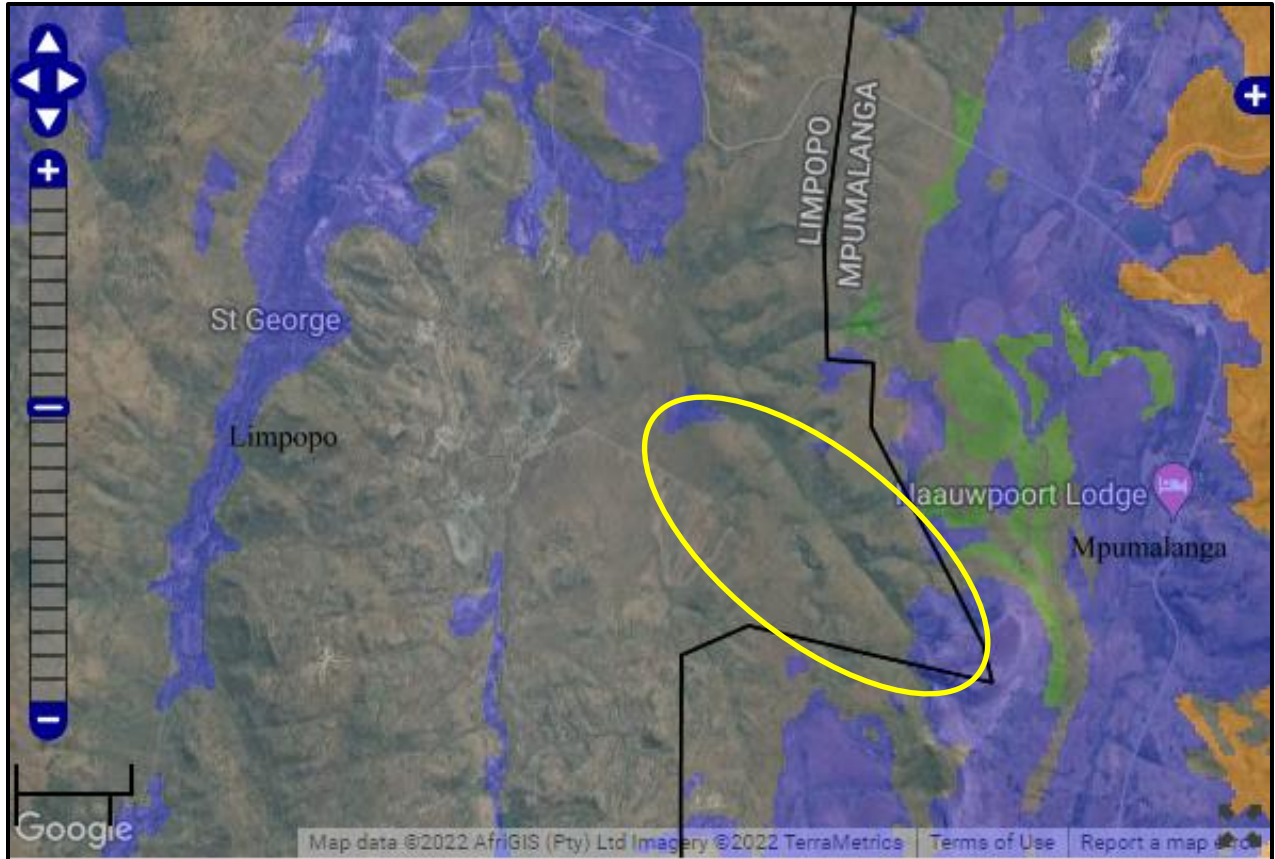


Figure 7.3. Palaeontological sensitivity as indicated on the DFFE Screening tool. The site is of medium sensitivity,



Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study; a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 7.4. Palaeontological sensitivity map of the approximate study area (yellow polygon).

8. POTENTIAL SIGNIFICANCE OF HERITAGE RESOURCES

Based on the current information obtained for the area at a desktop level it is anticipated that any heritage resources that occur within the proposed development area will have a Local Significance (LS), Grade 3B or lower field rating and all sites should be mitigatable. Graves are of high social significance (Field rating GP A) and can be expected anywhere on the landscape.

Table 4. Expected impact on heritage resources.

Impact on Heritage resources			
No impact is expected on heritage resources as prospecting will be non-invasive and consist of data search, field mapping and desktop studies, logging and sampling historical core; and scoping and (pre) feasibility studies.			
Issue	Nature of Impact	Extent of Impact	No-Go Areas
No direct or indirect impacts are expected on heritage resources through non intrusive prospecting.	Not Applicable	No impact expected	Where graves occur
Description of expected significance of impact			
Not applicable			
Gaps in knowledge & recommendations for further study			
It is recommended that if invasive activities are required the impact areas should be subjected to a heritage walkdown down to comply with Section 38 (8) of the National Heritage Resources Act.			

9. CONCLUSION AND PLAN OF STUDY

9.1. Summary of Desktop Verification Outcome

The scoping study did not identify any fatal flaws for the proposed Mareesburg Prospecting Project. No impact is expected on heritage resources or the cultural landscape as prospecting will be non-invasive. The study area is of insignificant palaeontological sensitivity and according to the SAHRIS palaeontological sensitivity map no further studies are required for this aspect.

9.2. The way forward

To comply with the National Heritage Resources Act (Act 25 of 1999) it is recommended that should invasive activities be required in future, impact areas should be subjected to a heritage walkdown prior to development as a condition of authorisation. During this assessment the potential impact on heritage resources will be determined as well as levels of significance of recorded heritage resources. The walkdown report will also provide management and mitigation measures should any significant sites be impacted upon, ensuring that all the requirements of the SAHRA are met including an extensive public participation and stakeholder consultation process.

9.1. Reasoned opinion regarding the acceptability of the proposed activity

Based on the current information obtained for the area at a desktop level no red flags were identified, and non-intrusive exploration will not negatively affect the cultural resources of the area.

Table 5. Summary of sensitivity and plan of study

ASPECT	SCREENING TOOL SENSITIVITY	VERIFIED SENSITIVITY	OUTCOME STATEMENT/PLAN OF STUDY	RELEVANT SECTION MOTIVATING VERIFICATION
Cultural Heritage	Low to high	Medium to high	Prior to invasive activities the impact areas should be subjected to the heritage walkdown.	Section 7.1.
Palaeontology	Medium	Low	No further studies are required.	Section 7.2.

10. LIST OF PREPARERS

Jaco van der Walt (Archaeologist and Project Manager)

11. STATEMENT OF COMPETENCY

The author of the report is a member of the Association of Southern African Professional Archaeologists and is also accredited in the following fields of the Cultural Resource Management (CRM) Section (#159): Iron Age Archaeology, Colonial Period Archaeology, Stone Age Archaeology and Grave Relocation. He is also a member of the Association of Professional Heritage Practitioners (#114). Jaco is also an accredited CRM Archaeologist with SAHRA and AMAFA.

Jaco has been involved in research and contract work in South Africa, Afghanistan, Botswana, Mozambique, Zimbabwe, Zambia, Guinea, Nigeria, Tanzania, Afghanistan, and the DRC and conducted well over 700 AIAs and HIAs since he started his career in CRM in 2000. This involved several mining operations, Eskom transmission and distribution projects, and renewable energy developments. The results of several of these projects were presented at international and local conferences.

12. STATEMENT OF INDEPENDENCE

I, Jaco van der Walt as duly authorised representative of Beyond Heritage, hereby confirm my independence as a specialist and declare that neither I nor the Beyond Heritage have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which the client was appointed as Environmental Assessment practitioner, other than fair remuneration for work performed on this project.



SIGNATURE:

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