

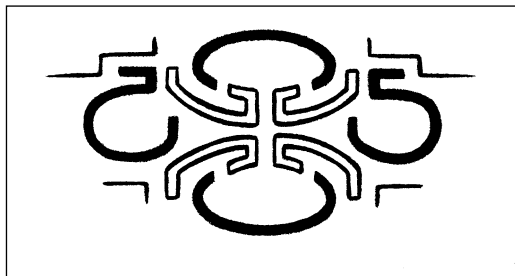
Cultural Heritage Impact Assessment:

Phase 1 Investigation for the Application for a Mining Right and Associated Environmental Authorisation and Waste Management License for Coal Mining on the Farm Cygnus 549 MS, Makhado Local Municipality, Vhembe District Municipality Limpopo Province



For

Project Applicant Universal Coal Development (V) (UCDV) PO Box 2423 Brooklyn Square, 0075 467 Fehrsen Street Corner Muckleneuk Street Brooklyn Pretoria, 0181 Tel No: 011 712 6600 Fax No: 011 403 4495	Environmental Consultant SRK Consulting (Pty) Ltd P.O. Box 35290 Menlo Park Menlyn Woods Office Park, Block A 291 Sprite Ave Faerie Glen, 0102 Tel No: 012 361 9821 Fax No: 012 361 9912 nmasawi@srk.co.za
---	--



By
Francois P Coetzee
Heritage Consultant
ASAPA Professional Member No: 028
99 Van Deventer Road, Pierre van Ryneveld,
Centurion, 0157
Tel: (012) 429 6297
Fax: (012) 429 6091
Cell: 0827077338
coetzfp@unisa.ac.za

Date:	June 2019
Version:	1 (Final Draft)

Executive Summary

This report contains a comprehensive heritage impact assessment investigation in accordance with the provisions of Sections 38(1) and 38(3) of the *National Heritage Resources Act* (Act No. 25 of 1999) (NHRA) and focuses on the survey results from a cultural heritage survey as requested by SRK Consulting (Pty) Ltd. SRK Consulting (SA) (Pty) Ltd (SRK) has been appointed by Universal Coal as the independent Environmental Assessment Practitioner (EAP) to conduct the Mining Right Application (MRA)/EA/WML application process for the project. Universal Coal Development V (Pty) Ltd (UCDV) was granted a Prospecting Right (LP30/5/1/1/2/1276PR) for the Cygnus 549 MS property, and is currently applying for a mining right in respect of coal mining. The project triggers activities listed in terms of Listing Notices 1 (Activities 11, 12, 13, 14, 24, 25, 27, and 56), Listing Notice 2 (Activities 6, 16, 15 and 17) and Listing Notice 3 (Activities 4, 10, 12 and 18) of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) (as amended) and will require an Environmental Authorisation (EA) from the Department of Mineral Resources (DMR), Limpopo Province. A separate application for an Integrated Water Use Licence (IWUL) will also be submitted to the Department of Water and Sanitation (DWS).

A single grave site (Site 1) was recorded during the survey of the survey footprint, however the site falls outside the development footprint and will not result in any impact.

Please note that no archaeological (both Stone Age and Iron Age) or historical settlements, structures, features or assemblages were recorded during the survey.

Based on the assessment, from a heritage perspective, no archaeological or historical remains will be impacted on during the proposed mining and prospecting activities. It is therefore recommended that the proposed application for a mining right be granted and that the development proceed. As a result, no mitigation measures are required.

Also, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* NHRA (Act No. 25 of 1999), Section 36 (6)).

Definitions and abbreviations

Midden:	Refuse that accumulates in a concentrated heap.
Stone Age:	An archaeological term used to define a period of stone tool use and manufacture
Iron Age:	An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture
LIA:	Late Iron Age sites are usually demarcated by stone-walled enclosures
NHRA:	National Heritage Resources Act (Act No. 25 of 1999)
SAHRA:	South African Heritage Resources Agency
SAHRIS:	South African Heritage Resources Information System
PHRA-G:	Provincial Heritage Resources Authority - Gauteng
GDARD:	Gauteng Department of Agriculture and Rural Development
HIA:	Heritage Impact Assessment

DMR: Department of Mineral Resources
I&APs: Interested and Affected Parties

I, Francois Coetzee, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.



Francois P Coetzee
Cultural Heritage Consultant
Accredited Archaeologist for the SADC Region
Professional Member of ASAPA (CRM Section) Reg no: 28

Contents

1. Introduction and Terms of Reference	6
2. Objectives.....	6
3. Description of Physical Environment of Study Area	6
4. Proposed Project Description.....	14
5. Legal Framework.....	15
6. Study Approach/Methodology.....	19
6.1 Review of existing information/data.....	20
6.2 Palaeontological sensitivity	24
6.3 Site visits.....	24
6.4 Social interaction and current inhabitants.....	24
6.5 Public Consultation and Stakeholder Engagement.....	25
6.6 Assumptions, restrictions, gaps and limitations.....	25
7. The Cultural Heritage Sites	26
7.1. Isolated occurrences	26
7.2 Heritage sites.....	27
8. Locations and Evaluation of Sites.....	28
9. Management Measures	28
9.1 Objectives.....	28
9.2 Control.....	29
10. Recommendations and Conclusions	29
11. References.....	29
Addendum 1: Archaeological and Historical Sequence	31
Addendum 2: Description of the Recorded Sites	40
Addendum 3: Surveyor General Farm Diagram	42
Addendum 4: Relocation of Graves	44

Figures

Figure 1: Regional map of the survey area (situated northwest of Louis Trichardt (indicated by the red area).....	9
Figure 2: Regional context of the survey footprint located southwest of Musina (indicated by the red area).....	9
Figure 3: Local context of the survey footprint (1:250 000 Topographical Map 2228).....	10
Figure 4: The survey area as indicated on the 1:50 000 topographic map 2229DA (1999) ..	10
Figure 5: Survey area within general context (Google Earth Pro 2019).....	11
Figure 6: Survey area within local context (Google Earth Pro 2019).....	11
Figure 7: General view of the survey footprint (eastern section).....	11
Figure 8: General view of the survey footprint (central area with a depression).....	12
Figure 9: General view of the western section	12
Figure 10: General view of the central section with large sandy areas.....	12
Figure 11: General view of the central section	13
Figure 12: General view of the one of the small dams in the eastern section.....	13
Figure 13: General view of the southern section with some sheet erosion	13
Figure 14: General view of the eastern fence along the farm	14
Figure 15: Proposed layout of the mining operation	15
Figure 16: Recorded survey tracks for the project.....	19
Figure 17: Location of the Machedemma ruins (Venda) to the east of the survey area	20
Figure 18: Jeppe's Map dating to 1899 indicates the location of the farm Cygnus	21

<i>Figure 19: Trade routes in the northern regions of the old Transvaal (of relevance is Route E, especially towards the north when running along the Brak River) (after Du V. Pienaar 1990:48 & Bergh 1998:9).....</i>	<i>21</i>
<i>Figure 20: The location of various known Middle Iron Age sites and early Venda settlements in the region (after Huffman 2007:418 & Bergh 1998:7)</i>	<i>22</i>
<i>Figure 21: The location of important early Venda settlements relative to the survey footprint</i>	<i>22</i>
<i>Figure 22: Heritage sites recorded during a larger survey of adjacent farms (see Coetzee 2016)</i>	<i>23</i>
<i>Figure 23: The location on heritage sites in the region according to the SAHRIS Database (June 2019)</i>	<i>23</i>
<i>Figure 24: Palaeontological sensitivity zones as indicated for the survey footprint (SAHRIS 2018)</i>	<i>24</i>
<i>Figure 25: The location of the single grave.....</i>	<i>27</i>
<i>Figure 26: A single grave indicated by packed stones (east-west orientation).....</i>	<i>28</i>
<i>Figure 27: Surveyor General’s sketch of the farm Cygnus 549 MS which was first surveyed in 1907.....</i>	<i>42</i>
<i>Figure 28: The declaration of the Machedema ruins as a Provincial heritage site in 1965....</i>	<i>43</i>

Tables

<i>Table 1: Physical Environment.....</i>	<i>7</i>
<i>Table 2: Socio-economic environment.....</i>	<i>8</i>
<i>Table 3: Legal framework.....</i>	<i>15</i>
<i>Table 4: Listed activities.....</i>	<i>17</i>
<i>Table 5: Activities that trigger Section 38 of the NHRA.....</i>	<i>17</i>
<i>Table 6: Field rating system to determine site significance</i>	<i>18</i>
<i>Table 7: Location of site</i>	<i>28</i>

1. Introduction and Terms of Reference

SRK Consulting (SA) (Pty) Ltd (SRK) has been appointed by Universal Coal as the independent Environmental Assessment Practitioner (EAP) to conduct the Mining Right Application (MRA)/EA/WML application process for the project. Universal Coal and Energy Holding South Africa (Pty) Ltd (UCEHSA) forms part of Universal Coal plc, which is an Australian Securities Exchange listed company. The applicant in this regards is UCEHSA's subsidiary Universal Coal Development V (Pty) Ltd (UCDV), which is a junior mining company. UCDV entered into a joint venture with the Black economic empowerment (BEE) company Solar Spectrum Trading 365 (Pty) Ltd. Solar Spectrum Trading 365 (Pty) Ltd. was granted the Prospecting Right over the Project Area (Cygnus 549MS). The joint venture incorporates the Prospecting Right LP30/5/1/1/2/1276PR for the Cygnus 549 MS property.

The reports and documentation for the integrated EA/WML application process will be compiled and finalised for submission to the DMR for the EA/WML in terms of the NEMA for consideration and decision making. The DMR will consult with other government authorities as required in terms of Section 24(K) of the NEMA which will be followed as prescribed by the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), National Water Act, 1998 (Act No. 36 of 1998) and 2014 EIA regulations (as amended). A Cultural Heritage Impact Assessment (HIA) was requested by SRK Consulting SA (Pty) Ltd on behalf of the client to evaluate the potential impact of the proposed prospecting and mining activities on cultural heritage remains.

2. Objectives

The general objective of the cultural heritage survey is to record and document cultural heritage remains consisting of both tangible and intangible archaeological and historical artefacts, structures (including graves), settlements and oral traditions of cultural significance.

As such the terms of reference of this survey are as follows:

- Identify and provide a detailed description of all artefacts, assemblages, settlements and structures of an archaeological or historical nature (cultural heritage sites) located on the study area,
- Estimate the level of significance/importance of these remains in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value,
- Assess any impact on the archaeological and historical remains within the area emanating from the development activities, and
- Propose recommendations to mitigate heritage resources where complete or partial conservation may not be possible and thereby limit or prevent any further impact.

3. Description of Physical Environment of Study Area

The proposed project is located on Farm Cygnus 549MS within Makhado Local Municipality of the Vhembe District Municipality in the Limpopo Province, approximately 120 km to the north of Polokwane and to the east of Alldays. The project site may be reached via an all-weather gravel road that branches off from the tar road (road R584) between Alldays and Waterpoort. The Project Area is approximately 50 km by road from Alldays and about 30 km by road from Waterpoort. The nearest sizeable town is Makhado (Louis Trichardt) some 80 km by road to the southeast. The nearest accessible railway siding is at Waterpoort, roughly 30 km to the southeast.

The Cygnus Project is located within the so-called 'B-block' of the Mopane sector of the Soutpansberg coalfield where the coal-bearing strata are deposited in a half-graben within the basement (Limpopo Mobile Belt) bedrock, fault-bounded toward the northwest and sub-outcropping towards the southeast

Farm Name(s) and Portions	• Cygnus 549 MS
Size of Survey Area	1311.17
Magisterial District	Makhado Local Municipality Vhembe District Municipality
1:50 000 Map Sheet	2229DC
1:250 000 Map Sheet	2228
Central Coordinates of the Development	22.71070°S 29.54630°E

Table 1: Physical Environment

The northern parts of the survey area falls within the Savanna Biome, particularly the Mopane Bioregion and more specifically the Musina Mopane Bushveld (SVmp 1). This veld type occurs in the Limpopo Province featuring undulating plains from around Baines Drift and Alldays in the west, remaining north of the Soutpansberg and south of the Limpopo River (but also occurring to the north in Zimbabwe), through Musina and Tshipise to Malongavlake, Masisi and Banyini Pan in the east (Mucina & Rutherford 2006).

The survey footprint is characterised by open flat valleys with water drainages disbursed throughout. Current land use activities associated with the study area are largely dominated by livestock farming, encompassed with some wildlife and wilderness. There are no current cultivated agricultural activities within the study area.

The climate for the municipal area ranges between 18 degrees Celsius in the mountainous areas to 28 degrees Celsius in the rest of the area, with an average of 25, 5 degrees Celsius. Maximum temperatures occur during the month of January while the minimum temperatures occur in July. The project is in a semi-arid zone characterised with high temperatures and low rainfall. Summer temperatures of the project area range from 29.3 °C to over 31 °C with minimum winter temperature >17 °C. The main period for rainfall is January to February with an annual rainfall of 450mm in the low-lying plains to 2300 mm in the Soutpansberg. The general average rainfall for the Municipal area ranges between 450 mm to 800 mm. The areas north of the Soutpansberg have less rainfall than the lower western foothills and central and eastern high lying areas of the mountain itself. In conclusion, higher rainfall occurs on the higher lying areas of the Soutpansberg and foothills of the mountain. Due to high temperatures the project area lies within a high evaporation climate.

Current Zoning	Farm land
Economic activities	Current land use activities associated with the study area are largely dominated by livestock farming, encompassed with some wildlife and wilderness. There are no current cultivated agricultural activities within the study area, however commercial cultivated agriculture was observed approximately 7.5 km south of the study area.
Soil and basic geology	The Cygnus Project is located northwest of Waterpoort, within the so-called B-Block of the Mopane sector of the Soutpansberg Coalfield. Here the coal-bearing strata are deposited in a half-graben within the basement (Limpopo Mobile Belt) bedrock, fault-bounded toward the northwest and sub-outcropping towards the southeast. The Karoo sediments continue in a thin strip towards the east, running south of Mopane, and eventually

	into the Tshipise area. The full Karoo Sequence is present in the Cygnus area with the coal-rich Ecca Formation underlain by tillite and diamictite of the Tshidzi Formation (Dwyka Group) and overlain by the sandstone package of the Fripp Formations. In the deeper parts of the basin, the Fripp Formation is overlain by siltstones and red mudstone/ shales of the Beaufort Group.
Prior activities	Livestock farming
Socio Economic Environment	<p>The proposed Cygnus Mine will be in the Makhado Local Municipality, within the Vhembe District Municipality of the Limpopo Province. Makhado has the second biggest economy in Vhembe District. The sector, which contributed the most to the GVA in Makhado Municipality, is the Community Services (33%) followed by the Finance Sector (26%) and Trade Sector (15%). This shows the same trend as in the Limpopo Province where Mining is by far the largest contributor to the GVA. The contribution of Agriculture to the GVA has grown more on Provincial and District level than on National level. The mining sector has grown on National level as well as on District level while the manufacturing sector has grown slightly less on regional level. Community service and trade sectors are the predominant employers within the study area, responsible for just over 27% and 19% of the active work force respectively. Agriculture is the third largest employer absorbing around 17% followed by the construction sector (8%), finance (5%), transport (5%), manufacturing (5%), and mining (1%).</p> <p>Employment Status: The Municipality has an Economically Active Population (EAP) of 124 473 which represent about 24.12% of the entire population of Makhado. In recent years, in common with the provincial and district economies, the Municipality has experienced an increase in overall employment levels. The total number of employed people is 78 768 (63%) of the EAP and the total number of unemployed persons is 45 705 (36.7%) of the EAP. The unemployment rate in Makhado has decreased by 8.2% in recent years (from 44.9% in 1996 to 36.70% in 2011). The unemployment rate for Limpopo as a whole has also decreased by 6.1% in the same period (from 45.1% to 39%). The unemployment rate amongst the youths (15-34years) has also declined from 62.30% in 2001 to 49.60% in 2011, but it remains very high.</p>
Evaluation of Impact	An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits NHRA (Act No. 25 of 1999, Section 38(3d)): Positive

Table 2: Socio-economic environment

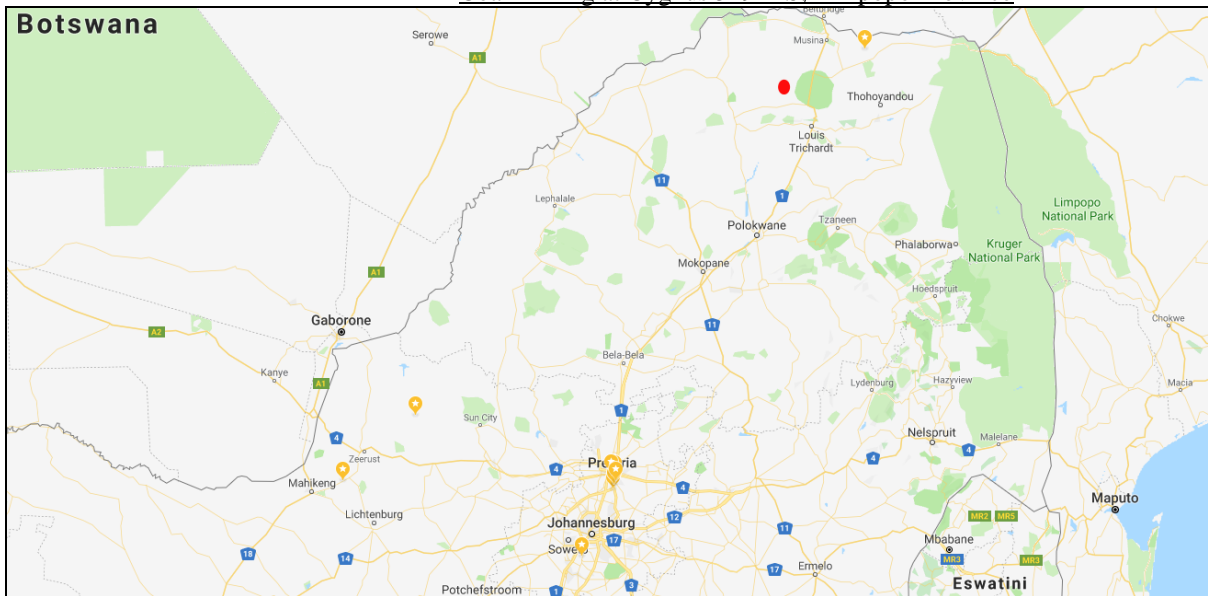


Figure 1: Regional map of the survey area (situated northwest of Louis Trichardt (indicated by the red area))

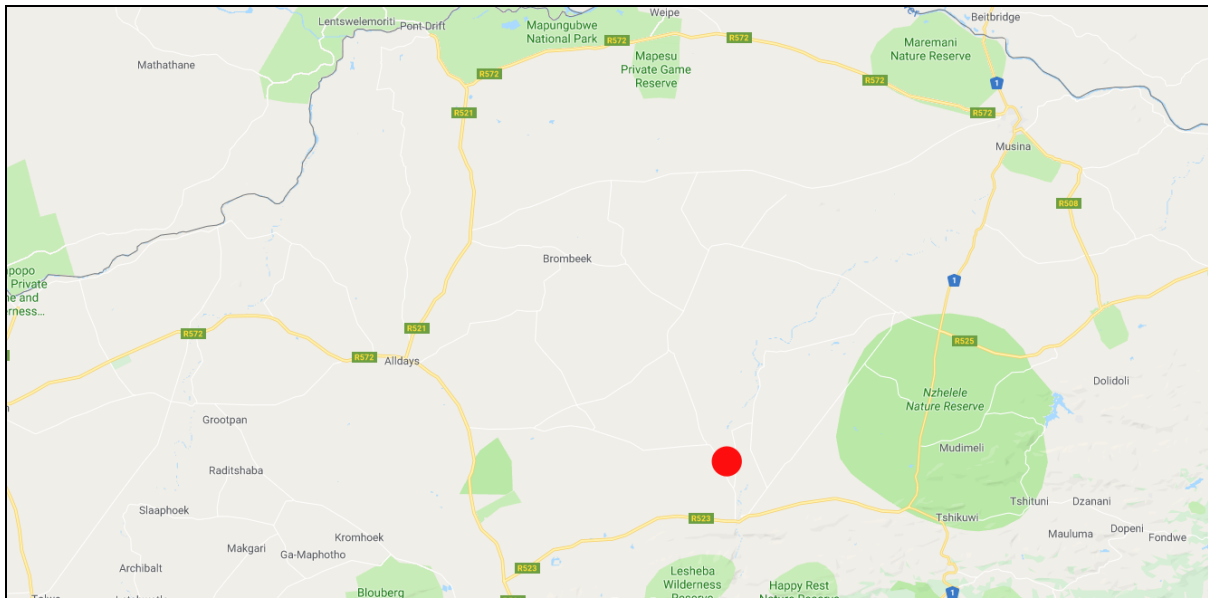


Figure 2: Regional context of the survey footprint located southwest of Musina (indicated by the red area)

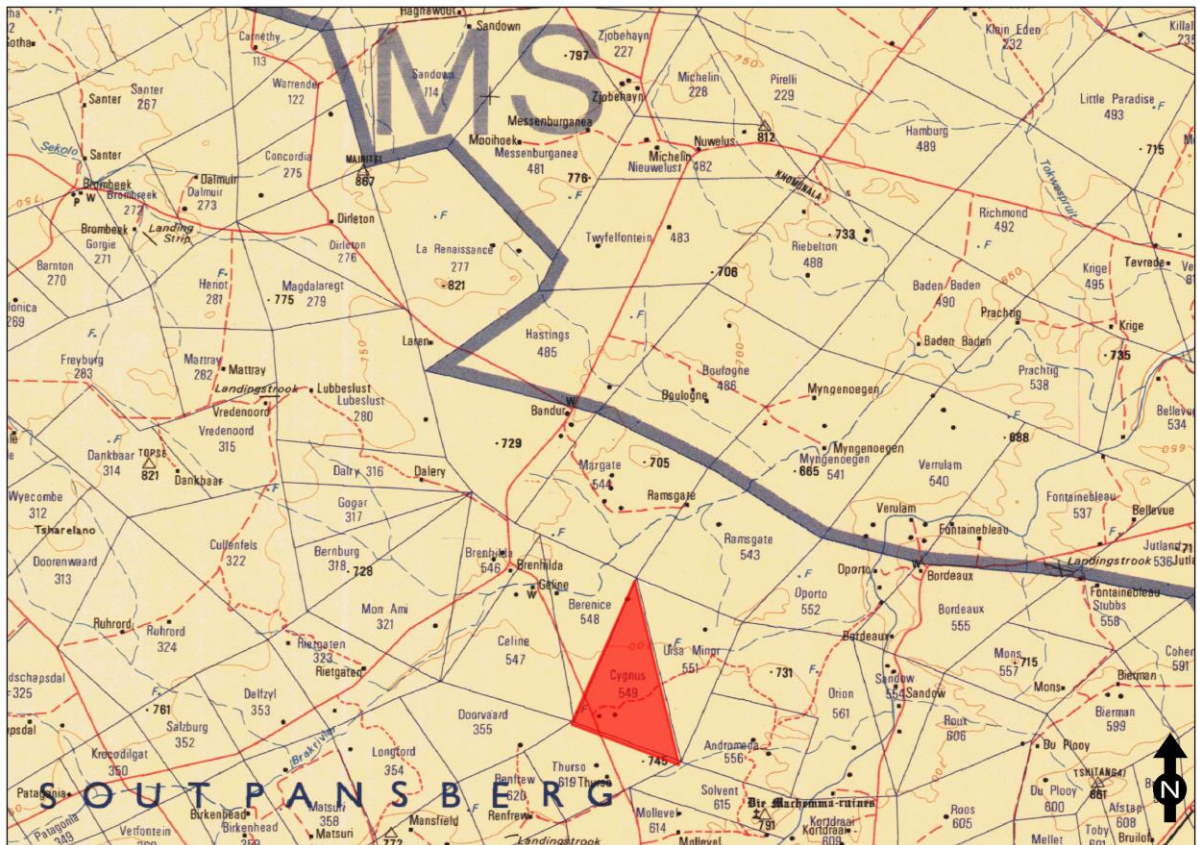


Figure 3: Local context of the survey footprint (1:250 000 Topographical Map 2228)

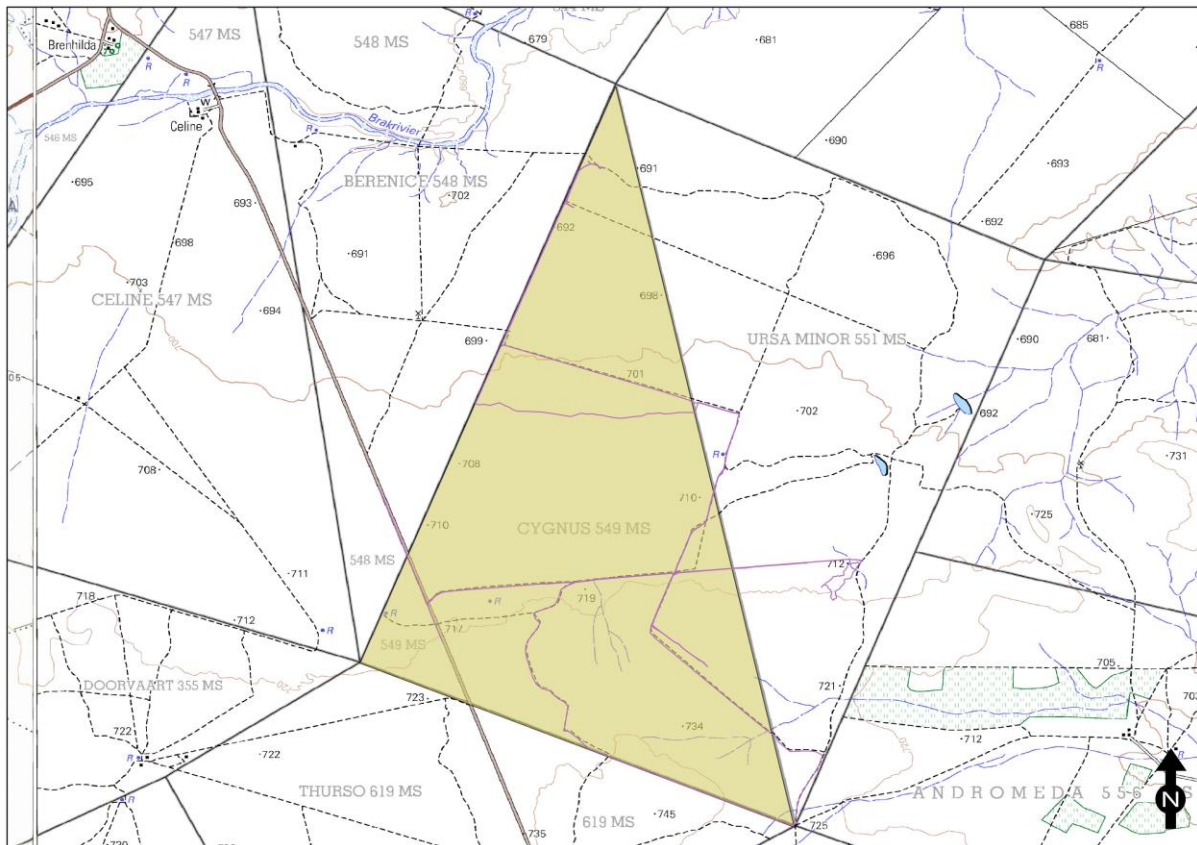


Figure 4: The survey area as indicated on the 1:50 000 topographic map 2229DA (1999)

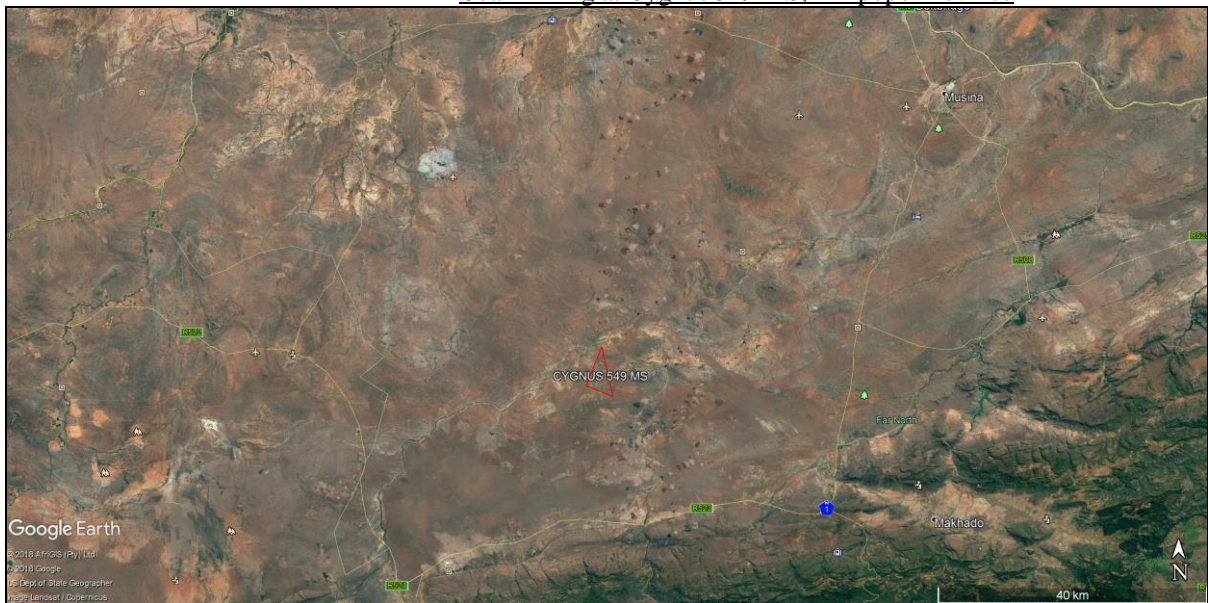


Figure 5: Survey area within general context (Google Earth Pro 2019)



Figure 6: Survey area within local context (Google Earth Pro 2019)



Figure 7: General view of the survey footprint (eastern section)



Figure 8: General view of the survey footprint (central area with a depression)



Figure 9: General view of the western section



Figure 10: General view of the central section with large sandy areas



Figure 11: General view of the central section



Figure 12: General view of the one of the small dams in the eastern section



Figure 13: General view of the southern section with some sheet erosion



Figure 14: General view of the eastern fence along the farm

4. Proposed Project Description

Due to the shallow depth and thickness of the coal seams in the project area, the strip ratios for surface mining are regarded as favourable in the southern portion of the Cygnus property. In the central part of the Cygnus resource area the coal seams are deeper and surface mining cannot be applied economically and underground mining methods will be applied and only in the S08. The Cygnus Project will therefore be an opencast mine followed by an underground mining operation operated by contractors.

As a result the mining activities the following infrastructure will also be required:

- Coal Handling and Processing Plant (CHPP)
- Power supply
- Water supply
- Access roads
- Sewage treatment and management
- Waste dumps
- Offices, workshops and change houses

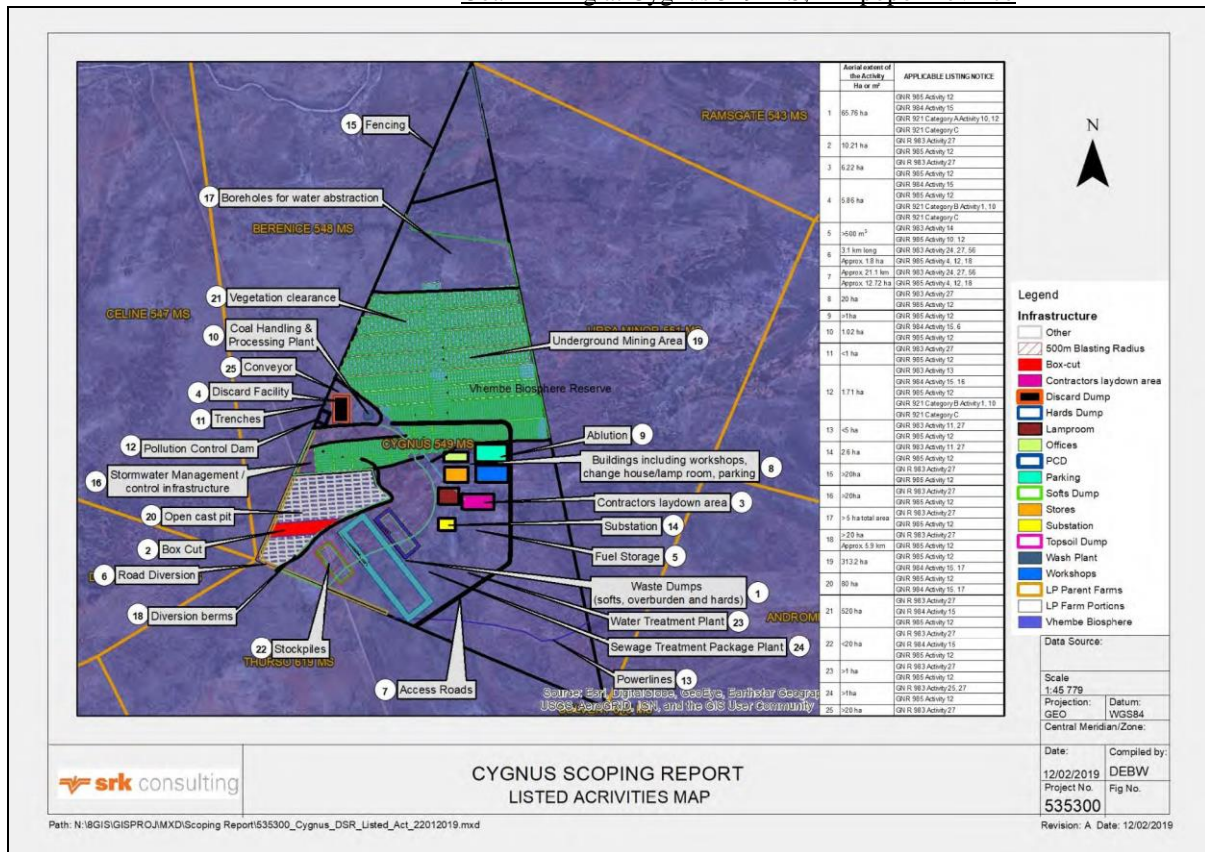


Figure 15: Proposed layout of the mining operation

5. Legal Framework

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE APPLIED
The Constitution of the Republic of South Africa (Act No. 108 of 1996)	
The National Environmental Management Act (Act No. 107 of 1998)	Section 24
The National Water Act (Act No. 36 of 1998)	Section 21
Air Quality Act (Act No. 39 of 2004)	-
National Forests Act, Act of 84 of 1998	-
The National Heritage Resources Act (Act No. 25 of 1999)	Section 38, 34, 35, 36
Conservation of Agricultural Resources Act (Act No. 85 of 1983)	
Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)	
The National Water Act (Act No. 36 of 1998);	
Mine Health and Safety Act (Act No. 29 of 1996) (MHSA)	
Biodiversity Act (Act 10 of 2004)	

Table 3: Legal framework

- Regulation 2, Appendix 2 of GNR 982 published in terms of NEMA stipulates the minimal requirements and issues that need to be addressed.

Section of the EIA Regulations, 2014	Description of EIA Regulations Requirements for Scoping Reports	Section
Appendix 2 (a)	Details of – the EAP who prepared the report; and the expertise of the EAP, including a curriculum vitae	Section 3
Appendix 2 (b)	The location of the activity, including – The 21 digit Surveyor General code of each cadastral land parcel; Where available, the physical address and farm name; Where the required information in items (i) and (ii) is not	Section 4 Figure 4-1

	available, coordinates of the boundary of the property or properties.	
Appendix 2 (c)	A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is – A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or On land where the property has not been defined, the coordinates within which the activity is to be undertaken; or.	Figure 5-5
Appendix 2 (d)	A description of the scope of the proposed activity, including – All listed and specified activities triggered; A description of the activities to be undertaken, including associated structures and infrastructure.	Section 5
Appendix 2 (e)	A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.	Section 6
Appendix 2 (f)	A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.	Section 7
Appendix 2 (g)	A full description of the process followed to reach the proposed preferred activity, site and location within the site, including- Details of all alternatives considered; Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them; The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which the impacts- (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed, or mitigated. The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives; Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographic, physical, biological, social, economic, heritage and cultural aspects; The possible mitigation measures that could be applied and level of residual risk; The outcome of the site selection matrix; If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and; A concluding statement indicating the preferred alternatives, including preferred location of the activity.	Section 9 Section 10 Table 10-6 Section 11 Section 13 Section 14 Section 13 Section 13 Section 17 Section 18 Section 19

Appendix 2 (h)	A plan of study for undertaking the environmental impact assessment process to be undertaken including- A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity; A description of the aspects to be assessed as part of the environmental impact assessment process; Aspects to be assessed by specialists; A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists; A description of the proposed method of assessing duration and significance; An indication of the stages at which the competent authority will be consulted; Particulars of the public participation process that will be conducted during the environmental impact assessment process; A description of the tasks that will be undertaken as part of the environmental impact assessment process; Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	Section 20
Appendix 2 (i)	An undertaking under oath or affirmation by the EAP in relation to- The correctness of the information provided in the report; The inclusion of the comments and inputs from stakeholders and interested and affected parties; and Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.	Section 21
Appendix 2 (j)	An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment.	Section 22
Appendix 2 (k)	Where applicable, any specific information required by the competent authority.	Section 20.10
Appendix 2(l)	Any other matter in terms of Section 24(4)(a) and (b) of the NEMA	Section 20.10.3

Table 4: Listed activities

- Section 38 of the NHRA (Act No. 25 of 1999) stipulates that the following activities trigger a heritage survey:

Development criteria in terms of Section 38(1a-e) of the NHRA (Act No. 25 of 1999)	Yes/No
Construction of road, wall, powerline, pipeline, canal or other linear form of development or barrier exceeding 300m in length	Yes
Construction of bridge or similar structure exceeding 50m in length	No
Development exceeding 5000 m ² in extent	No
Development involving three or more existing erven or subdivisions	No
Development involving three or more erven or divisions that have been consolidated within past five years	No
Rezoning of site exceeding 10 000 m ²	No
Any other development category, public open space, squares, parks, recreation grounds	No

Table 5: Activities that trigger Section 38 of the NHRA

- Field rating system as recommended by SAHRA:

Field Rating	Grade	Significance	Recommended Mitigation
National Significance	Grade I	High significance	Conservation by SAHRA, national site nomination, mention any relevant international ranking. No alteration whatsoever without permit from SAHRA.
Provincial Significance	Grade II	High significance	Conservation by provincial heritage authority, provincial site nomination. No alteration whatsoever without permit from provincial heritage authority.
Local Significance	Grade III-A	High significance	Conservation by local authority, no alteration whatsoever without permit from provincial heritage authority. Mitigation as part of development not process advised.
Local Significance	Grade III-B	High significance	Conservation by local authority, no external alteration without permit from provincial heritage authority. Could be mitigated and (part) retained as heritage register site.
Generally Protected A	Grade IV-A	High/medium significance	Conservation by local authority. Site should be mitigated before destruction. Destruction permit required from provincial heritage authority.
Generally Protected B	Grade IV-B	Medium significance	Conservation by local authority. Site should be recorded before destruction. Destruction permit required from provincial heritage authority.
Generally Protected C	Grade IV-C	Low significance	Conservation by local authority. Site has been sufficiently recorded in the Phase 1 HIA. It requires no further recording before destruction. Destruction permit required from provincial heritage authority.

Table 6: Field rating system to determine site significance

- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite, non-renewable and irreplaceable.
- All archaeological remains, features, structures and artefacts older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999, Section 34 & 35)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory (see **Section 38**). No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.
- Cognisance will also be taken of the Mineral and Petroleum Resources Development Act (Act No 28 of 2002) and the National Environmental Management Act (Act No 107 of 1998) when making any recommendations.
- Human remains older than 60 years are protected by the NHRA, with reference to Section 36. Human remains that are less than 60 years old are protected by the Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003 as well as local Ordinances and regulations.
- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.

- The guidelines as provided by the NHRA (Act No. 25 of 1999) in Section 3, with special reference to subsection 3, and the Australian ICOMOS (International Council on Monuments and Sites) Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- A copy of this report will be submitted on SAHRIS as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4) and the relevant Provincial Heritage Resources Authority (PHRA).
- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the SAHRA (or relevant PHRA).

6. Study Approach/Methodology

Geographical information (KML and shapefiles) on the proposed prospecting activities was supplied by SRK Consulting SA (Pty) Ltd. The most up-to-date Google Earth images and topographic maps were used to indicate the survey area. Topographic maps were sources from the Surveyor General. Please note that all maps are orientated with north facing upwards (unless stated otherwise).

The strategy during this survey was to survey most of the footprint that form part of the proposal. The survey area was surveyed by detailed pedestrian (foot) survey techniques.

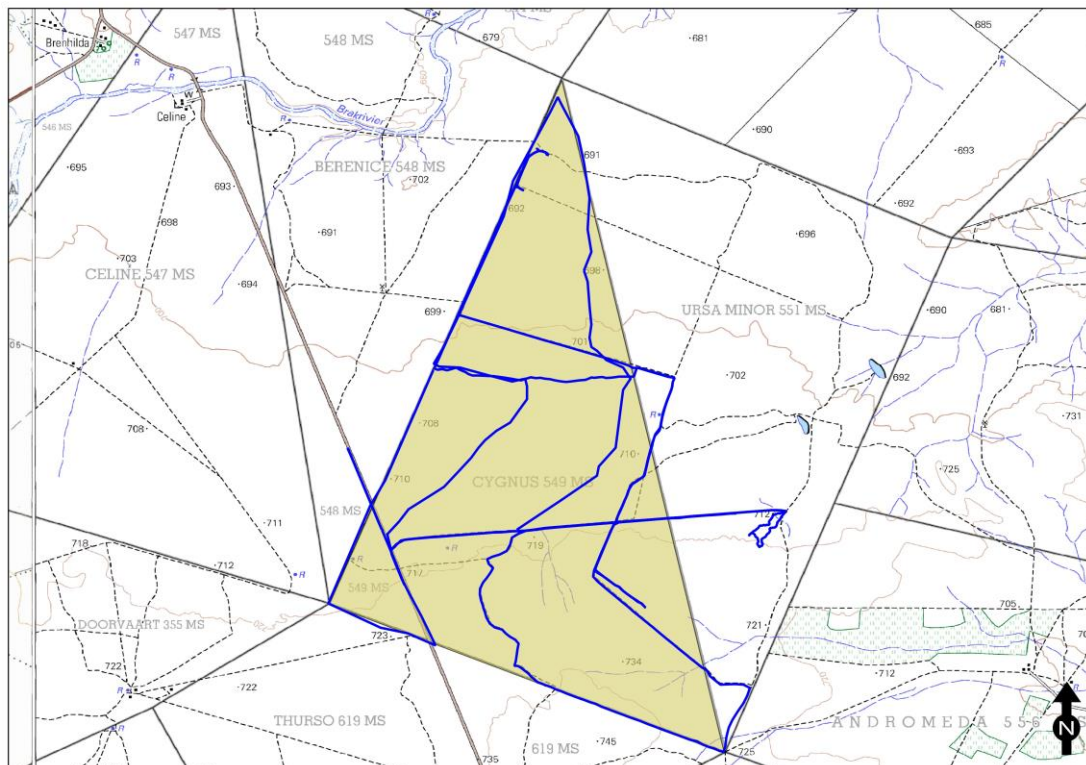


Figure 16: Recorded survey tracks for the project

6.1 Review of existing information/data

Additional information on the cultural heritage of the area was sourced from the following records:

- National Mapping Project by SAHRA (which lists heritage impact assessment reports submitted for South Africa);
- Environmental Potential Atlas (ENPAT);
- Online SAHRIS database;
- National Automated Archival Information retrieval System (NAAIRS);
- Maps and information documents supplied by the client; and
- Several heritage surveys have been conducted in the vicinity of the survey area (published and unpublished material) on the area (see Coetzee 2016, Millais 1986 and Pistorius 2007).

The early naturalistic traveller John Guille Millais traversed the area north of the Soutpansberg in 1893. He described the area north of the Soutpansberg as very unhealthy (due to Tsetse Fly), desolate and waterless. While hunting along the Brak River he recounts hearing of a well-known trading station (outpost) next to the Blougat ('Blauw Ghat') water hole (Millais 1986:118). A trading outpost served as a stop-over for traders on the wagon route that started in Rooiberg (Thabazimbi area) in the south, and stretched northwards, passing through Polokwane, skirted the western edge of the Soutpansberg and then ran along the Brak River further on into Zimbabwe (Bergh 1998 & Du V. Pienaar 1990 and Coetzee 2016).

Ethnographic studies indicate that the area is generally associated with early Shi-Venda speaking communities and early hill-top settlements such as Machemma, Verulam, Verdun and Dzata (located further towards the east) are well known. Note that the Machemma ruins are a declared Provincial Heritage Site (Site Ref: 9/2/269/0006; also see Addendum 3)

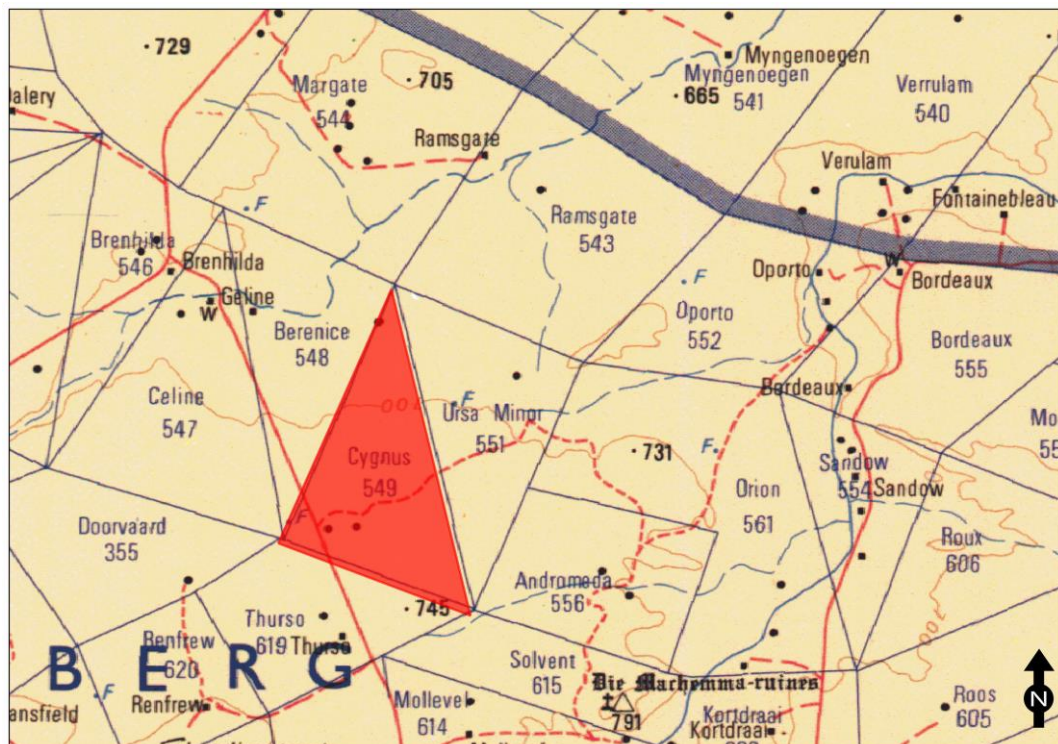


Figure 17: Location of the Machemma ruins (Venda) to the east of the survey area

Although indicated on Jeppe’s Map of 1899 the earliest survey data from the Surveyor General’s database for the farms Berenice 548MS

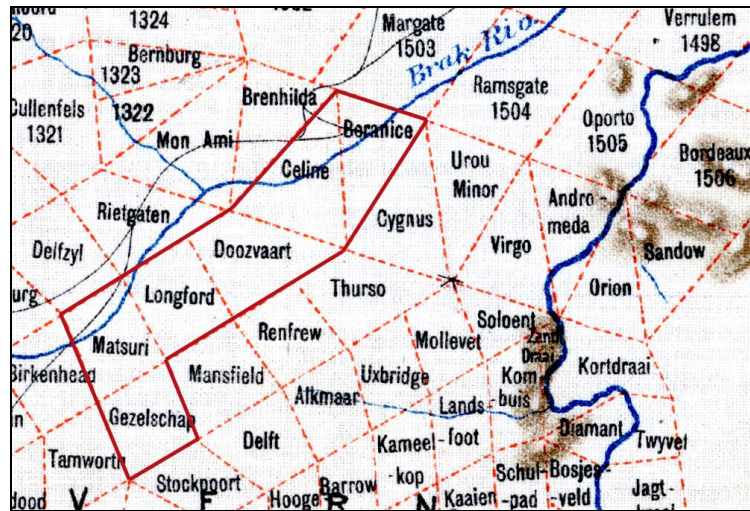


Figure 18: Jeppe’s Map dating to 1899 indicates the location of the farm Cygnus

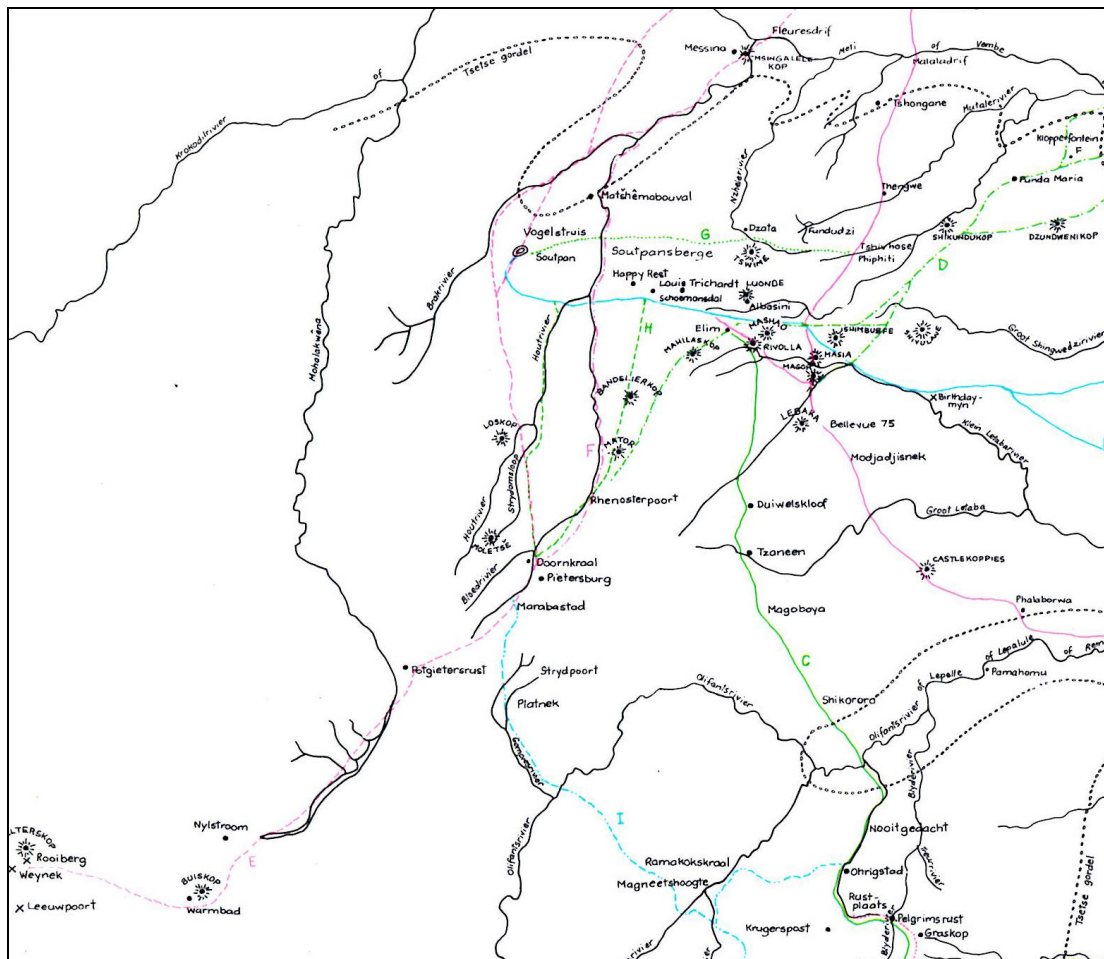


Figure 19: Trade routes in the northern regions of the old Transvaal (of relevance is Route E, especially towards the north when running along the Brak River) (after Du V. Pienaar 1990:48 & Bergh 1998:9)

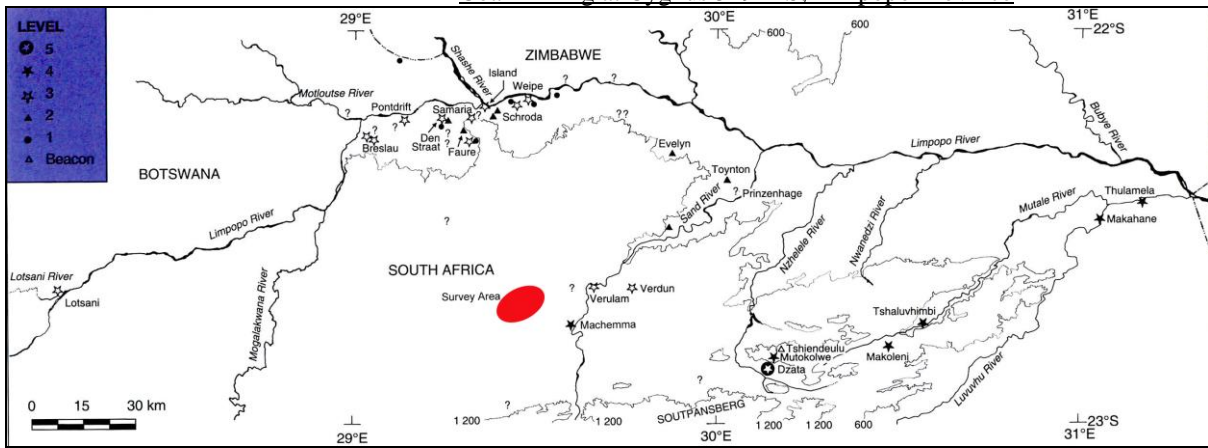


Figure 20: The location of various known Middle Iron Age sites and early Venda settlements in the region (after Huffman 2007:418 & Bergh 1998:7)

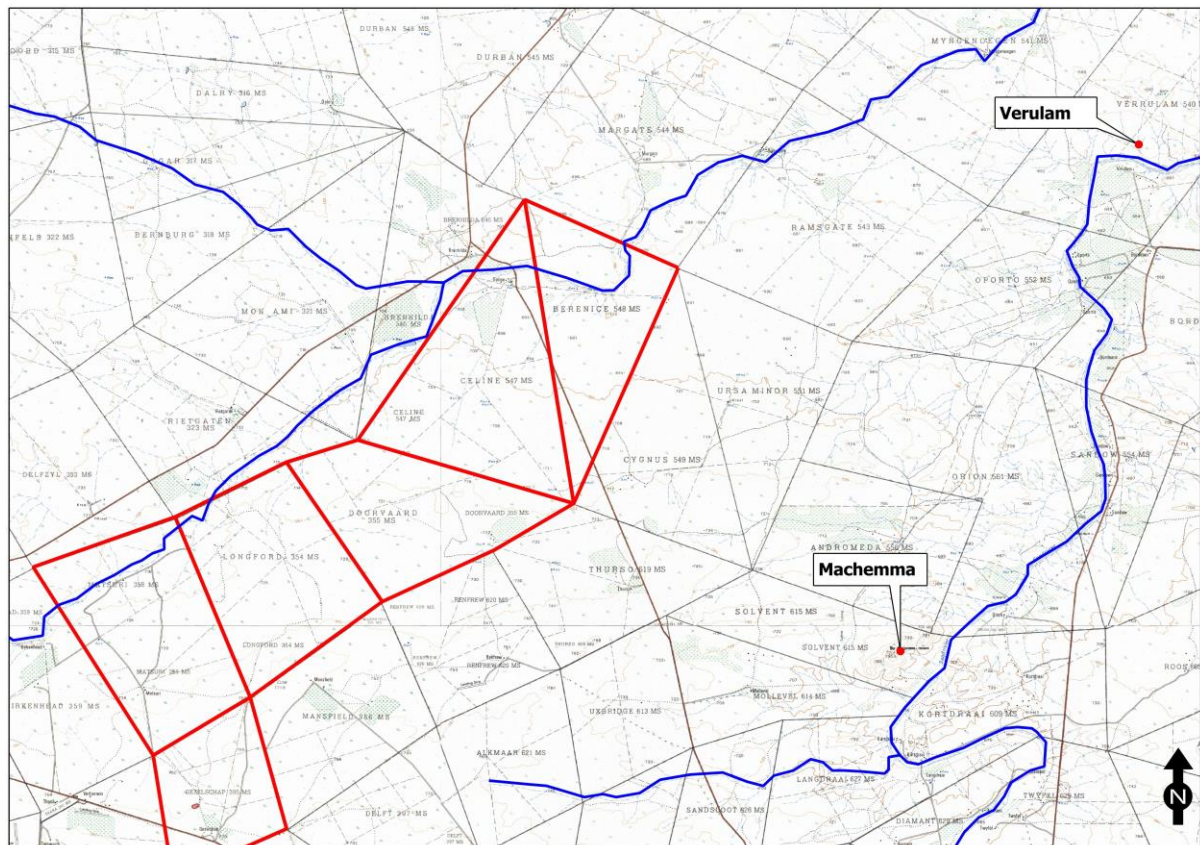


Figure 21: The location of important early Venda settlements relative to the survey footprint

The Surveyor General’s map of the farm Cygnus 549 MS confirms that the farm was first surveyed in 1907 (also see Addendum 3).

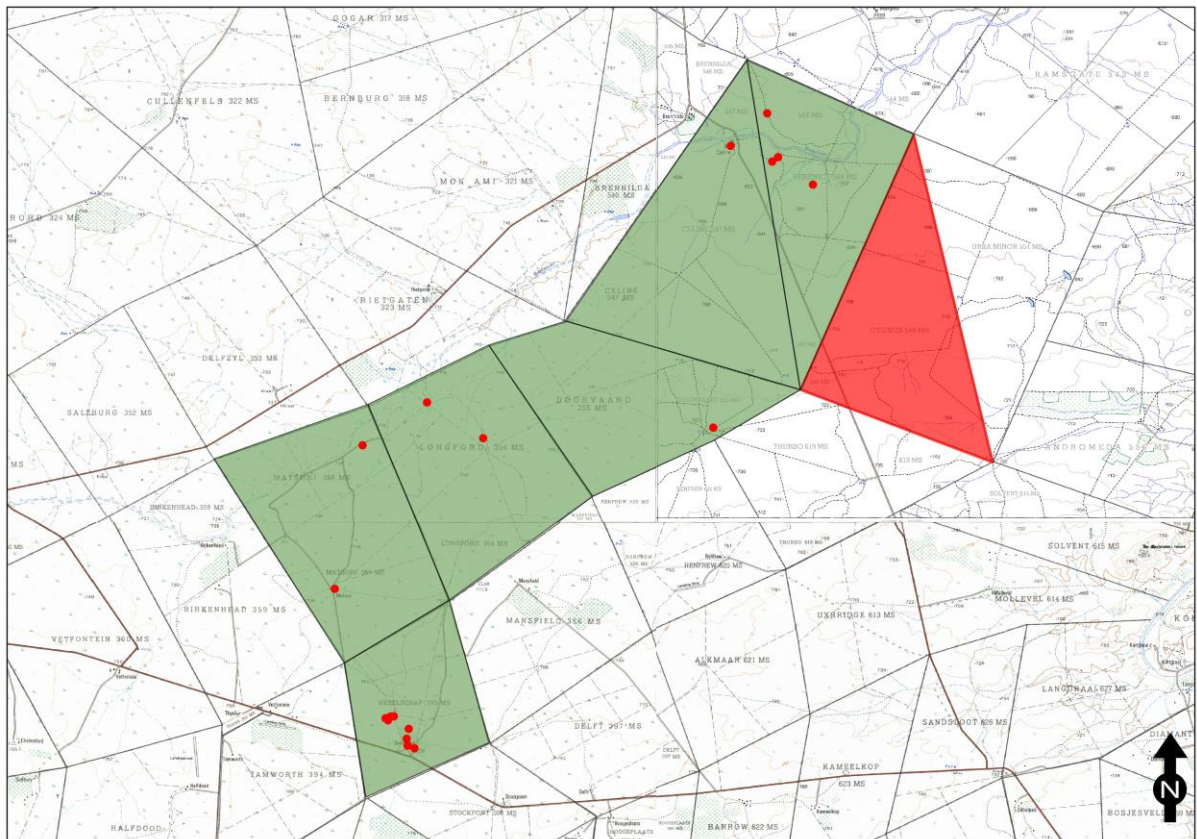


Figure 22: Heritage sites recorded during a larger survey of adjacent farms (see Coetzee 2016)

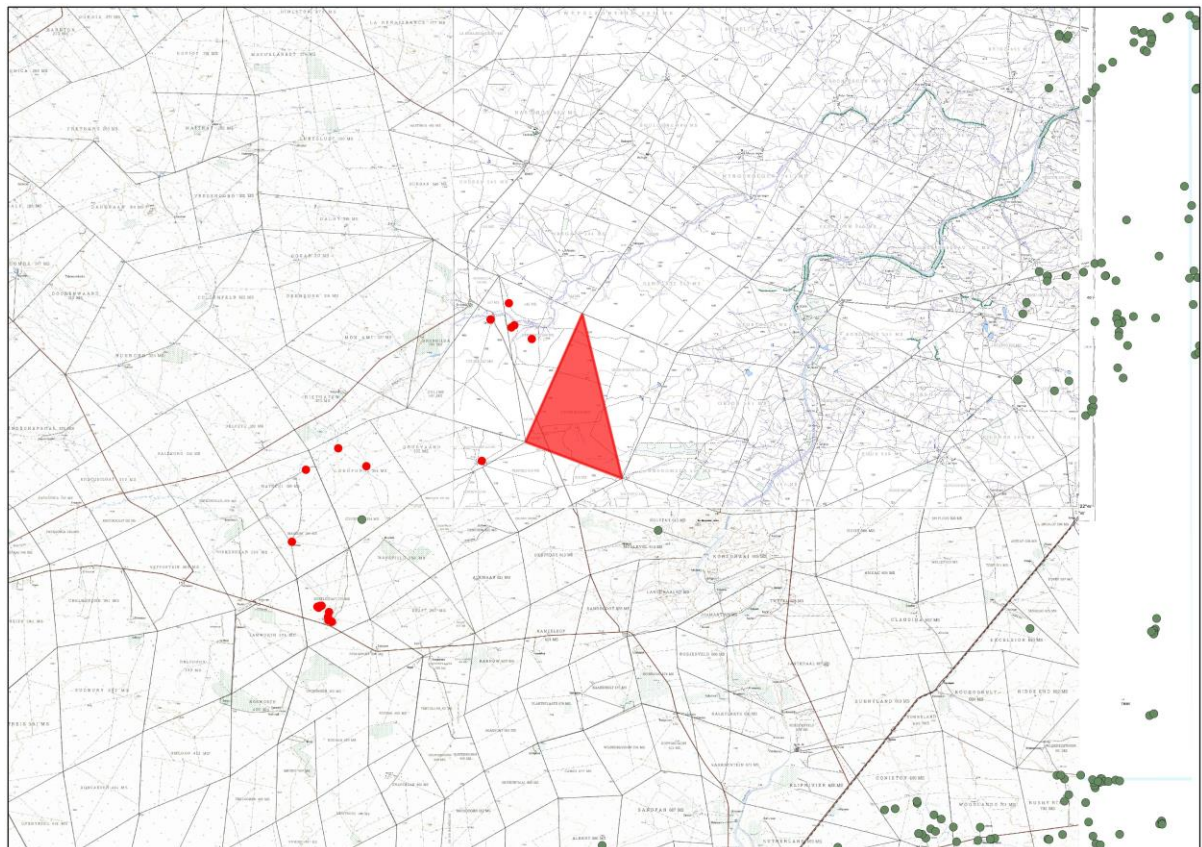


Figure 23: The location on heritage sites in the region according to the SAHRIS Database (June 2019)

6.2 Palaeontological sensitivity

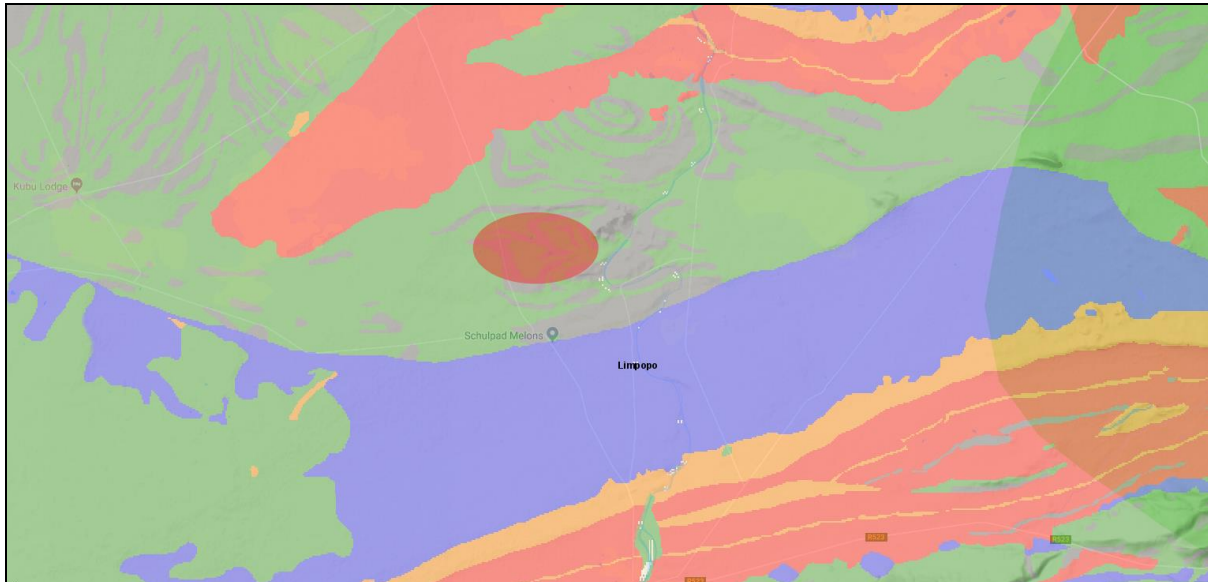


Figure 24: Palaeontological sensitivity zones as indicated for the survey footprint (SAHRIS 2018)

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	Will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

The palaeontological sensitivity map was extracted from the SAHRIS database and clearly shows sections with grey (insignificant/zero) and green (desktop study required) sensitivity. As a result a desktop palaeontological assessment will be required for the survey footprint.

6.3 Site visits

The field survey was conducted on 1 August 2018.

6.4 Social interaction and current inhabitants

The strategy of the field survey was primarily underpinned by local oral testimony utilising the profoundly intimate knowledge of local farm managers, owners and trackers. This local knowledge of known structures, graves and features was therefore combined with selective pedestrian surveys at certain locals, using existing access roads.

6.5 Public Consultation and Stakeholder Engagement

An I&AP's register was developed using existing database from the Berenice Mining Right Application (LP 30/5/1/2/2 (10131) MR/LP 30/5/1/2/3/2/1 (10131) EM), which is located on properties adjacent to the Cygnus 549MS property. Registered I&AP's were further sourced from responses to the advertisements, site notices and written notification to I&AP's associated with this specific project. Notification letters were sent to identified I&AP's on 31 January 2019, informing them of the proposed project. Sites notice boards (Size A2: 600 mm X 420 mm) (English, Venda and Afrikaans) notifying stakeholders and I&AP's of the proposed activity were placed at conspicuous places in the project area on 31 January 2019. These areas of placement were determined according to the quantity of potential I&AP's that may pass by. Newspaper advertisements (English, Venda and Afrikaans) notifying stakeholders about the proposed project and the opportunity to participate in the EIA process were placed in the newspapers. Stakeholders will be invited to a public meeting where the contents of the Draft Scoping Report and Plan of Study will be presented. The stakeholders will have the opportunity to comment on the report and plan of study and raise issues that may need to be included in the impact assessment phase. All comments received will be incorporated into the final Scoping Report. The availability of the DSR was announced by means of SMS, letters and emails to registered I&APs. The DSR, announcement letters and comment forms were made available for public viewing and comment in the same public places as for the project announcement phase. A summary of comments received will be included in the CRR, which will form an Appendix to the Final Scoping Report to be submitted to the DMR however comments received to date from pre-application consultations.

6.6 Assumptions, restrictions, gaps and limitations

No severe physical restrictions were encountered as the survey area was fairly accessible.

6.7 Methodology for assessment of potential impacts

All impacts identified during the EIA stage of the study will be classified in terms of their significance. Issues were assessed in terms of the following criteria:

- The **nature**, a description of what causes the effect, what will be affected and how it will be affected;
- The **physical extent** (scale), wherein it is indicated whether:
 - 1 - the impact will be limited to the site;
 - 2 - the impact will be limited to the local area;
 - 3 - the impact will be limited to the region;
 - 4 - the impact will be national; or
 - 5 - the impact will be international.
- The **duration**, wherein it is indicated whether the lifetime of the impact will be:
 - 1 - of a very short duration (0–1 years);
 - 2 - of a short duration (2-5 years);
 - 3 - of a medium-term (5–15 years);
 - 4 - of a long term (> 15 years); or
 - 5 - permanent.
- The **magnitude** of impact, quantified on a scale from 0-10, where a score is assigned:
 - 0 - small and will have no effect;
 - 2 - minor and will not result in an impact;

- 4 - low and will cause a slight impact;
- 6 - moderate and will result in processes continuing but in a modified way;
- 8 - high, (processes are altered to the extent that they temporarily cease); or
- 10 - very high and results in complete destruction of patterns and permanent cessation of processes;
- The **probability** of occurrence, which describes the likelihood of the impact actually occurring and is estimated on a scale where:
 - 1 - very improbable (probably will not happen);
 - 2 - improbable (some possibility, but low likelihood);
 - 3 - probable (distinct possibility);
 - 4 - highly probable (most likely); or
 - 5 - definite (impact will occur regardless of any prevention measures);
- The **significance**, which is determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high;
- The **status**, which is described as either positive, negative or neutral;
 - The degree to which the impact can be reversed;
 - The degree to which the impact may cause irreplaceable loss of resources; and
 - The degree to which the impact can be mitigated.

The significance is determined by combining the criteria in the following formula:

$S = (E+D+M) \times P$; where:

S = Significance weighting

E = Extent

D = Duration

M = Magnitude

P = Probability

Points	Significance Weighting	Discussion
< 30 points	Low	Where this impact would not have a direct influence on the decision to develop in the area.
31-60 point	Medium	Where the impact could influence the decision to develop in the area unless it is effectively mitigated.
> 60 points	High	Where the impact must have an influence on the decision process to develop in the area.

7. The Cultural Heritage Sites

7.1. Isolated occurrences

Isolated occurrences are artefacts or small features recorded on the surface with no contextual information. No other associated material culture (in the form of structures or deposits) was noted that might provide any further context. This can be the result of various impacts and environmental factors such as erosion and modern developments. By contrast archaeological sites are often complex sites with evidence of archaeological deposit and various interrelated features such as complex deposits, stone walls and middens. However, these isolated occurrences are seen as remains of erstwhile complex or larger sites and they therefore provide a broad indication of possible types of sites or structures that might be expected to occur or have occurred in the survey footprint.

Throughout the survey footprint no isolated finds were recorded.

7.2 Heritage sites

Generally very little is known about the archaeological sites in the specific region of the study area. Although several hill-top Venda settlements are known further to the east, no such sites were recorded during the survey. In addition, although several surface scatters of Later Stone Age (LSA) and Middle Stone Age (MSA) artefacts were noted during the adjacent study of the Berenice project (see Coetzee 2016) none were recorded in the survey area.

Although a single grave was recorded, it falls well outside the survey footprint. No historical structures or archaeological assemblages, deposits, structures or features were recorded. It is clear from historical maps and the Surveyor General's documentation that the farm was probably used for seasonal grazing (cattle outpost) and no infrastructure was developed.

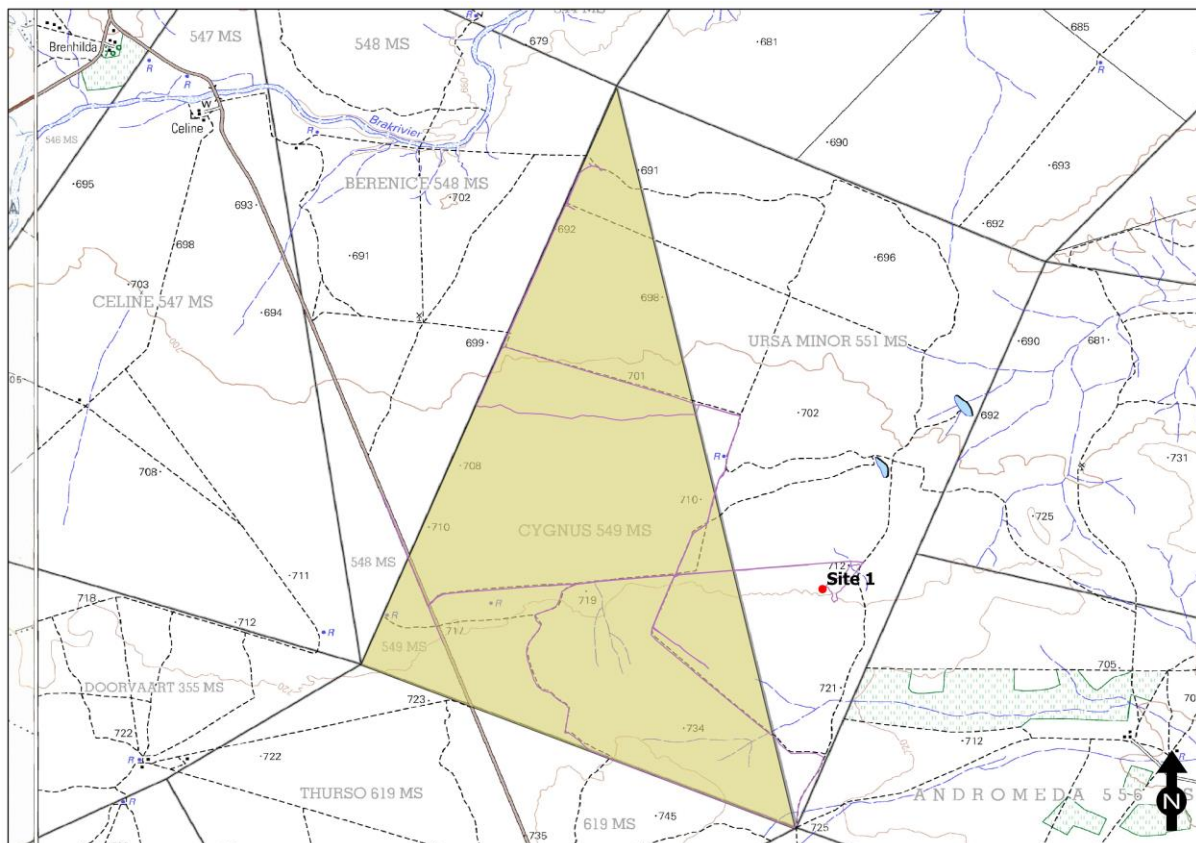


Figure 25: The location of the single grave



Figure 26: A single grave indicated by packed stones (east-west orientation)

8. Locations and Evaluation of Sites

Site No	Coordinates	Site Type	Impact	Proposed Mitigation
1	22.717515°S 29.569686°E	Grave	None	• None

Table 7: Location of site

9. Management Measures

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the proposed development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

9.1 Objectives

- Protection of archaeological, historical and any other site or land considered being of cultural value within the project boundary against vandalism, destruction and theft.
- The preservation and appropriate management of new discoveries in accordance with the NHRA, should these be discovered during construction activities

The following shall apply:

- Known sites should be clearly marked in order that they can be avoided during construction activities.
- The contractors and workers should be notified that archaeological sites might be exposed during the construction activities.
- Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible;
- All discoveries shall be reported immediately to a heritage practitioner so that an investigation and evaluation of the finds can be made. Acting upon advice from these

specialists, the Environmental Control Officer will advise the necessary actions to be taken;

- Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and
- Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51. (1).

9.2 Control

In order to achieve this, the following should be in place:

- A person or entity, e.g. the Environmental Control Officer, should be tasked to take responsibility for the heritage sites and should be held accountable for any damage.
- Known sites should be located and isolated, e.g. by fencing them off. All construction workers should be informed that these are no-go areas, unless accompanied by the individual or persons representing the Environmental Control Officer as identified above.
- In areas where the vegetation is threatening the heritage sites, e.g. growing trees pushing walls over, it should be removed, but only after permission for the methods proposed has been granted by SAHRA. A heritage official should be part of the team executing these measures.

10. Recommendations and Conclusions

A single grave site (Site 1) was recorded during the survey of the survey footprint, however the site falls outside the development footprint and will not result in any impact.

Please note that no archaeological (both Stone Age and Iron Age) or historical settlements, structures, features or assemblages were recorded during the survey.

Based on the assessment, from a heritage perspective, no archaeological or historical remains will be impacted on during the proposed mining and prospecting activities. It is therefore recommended that the proposed application for a mining right be granted and that the development proceed. As a result, no mitigation measures are required.

Also, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* NHRA (Act No. 25 of 1999), Section 36 (6)).

11. References

Bergh, J.S. (ed.) 1998. Geskiedenis Atlas van Suid-Afrika: Die Vier Noordelike Provinsies. Pretoria: Van Schaik Publishers

Cameron, T. & Spies, S.B. (eds.) 1986. New History of South Africa in Word and Image. Cape Town: Human & Rousseau.

Coetzee, F.P. 2016. Cultural Heritage Assessment of the Berenice Project for the Application for Mining Rights, Universal Coal Development II (Pty) Ltd, north of the Soutpansberg Mountains, Makhado Local Municipality, Vhembe District Municipality, Limpopo Province. Unpublished report.

De V. Pienaar, U. 1990. *Neem uit die Verlede*. Pretoria: National Parks Board.

Huffman, T. N. 2007. *Handbook to the Iron Age: the Archaeology of Pre-Colonial Farming Societies in Southern Africa*. University of KZN Press: Pietermaritzburg.

Jeppe, F. 1899. *Jeppe's Map of the Transvaal*. London: Edward Stanford.

Lastovica, E. & Lastovica, A. 1982. *Bottles and Bygones: A guide for South African Collectors*. Cape Town: Don Nelson.

Millais, J.G. 1899 (Reprinted 1986). *A Breath from the Veldt*. London: Henry Sotheran and Co.

Lombard, M., Wadley, L., Deacon, J., Wurz, S., Parsons, I., Mohapi, M., Swart, J. & Mitchell, P. 2012. South African and Lesotho Stone Age Sequence Update (I). *The South African Archaeological Bulletin*. Vol 67 (195): 123-144.

Mucina, L. & Rutherford, M.C. 2010. *The Vegetation of South Africa, Lesotho and Swaziland*. *Strelitzia* 19. Pretoria: South African National Biodiversity Institute.

National Heritage Resources Act. Act No. 25 of 1999. Government Printer: Pretoria.

Ordnance Survey Office (Intelligence Division). 1899. *Transvaal and Orange Free State: Kimberley*. War Office No. 1367. Southampton: War Office.

Office of the President. 27 November 1998. National Environmental Management Act (Act No. 107 of 1998). Government Gazette Vol 401 (19519). Pretoria: Government Printer.

Pistorius, J.C.C. 2007. *A Phase 1 Heritage Impact Assessment (HIA) Study for Rio Tinto's Exploration Activities on Various Farms in the Chapudi Project Area North of the Soutpansberg in the Limpopo Province of South Africa*. Unpublished report.

SAHRA, 2005. *Minimum Standards for the Archaeological and the Palaeontological Components of Impact Assessment Reports*, Draft version 1.4.

South African Heritage Resources Agency (SAHRA). *Report Mapping Project*. Version 1.0, 2009.

Other Sources

Google Earth Pro 2018 (Images: 2019)

<http://www.krugerpark.co.za/kruger-park-news-the-greater-mapungubwe-route-25584.html>

(Accessed: June 2019)

<http://samilitaryhistory.org/vol041dp.html> (Accessed: June 2019)

National Archives (NAAIRS) (Accessed: June 2019)

SAHRIS Database. <http://www.sahra.org.za/sahris> (Accessed June 2019)

The Heritage Portal (www.heritageportal.co.za) (Accessed June 2019)

<https://www.cwgc.org> [Commonwealth War Grace Commission] (Accessed June 2019)

Addendum 1: Archaeological and Historical Sequence

The table provides a general overview of the chronological sequence of the archaeological periods in South Africa.

PERIOD	APPROXIMATE DATES
Earlier Stone Age	more than 2 million years ago to >200 000 years ago
Middle Stone Age	<300 000 years ago to >20 000 years ago
Later Stone Age (Includes hunter-gatherer rock art)	<40 000 years ago up to historical times in certain areas
Early Iron Age	c. AD 200 - c. AD 900
Middle Iron Age	c. AD 900 – c. AD 1300
Late Iron Age (Stonewalled sites)	c. AD 1300 - c. AD 1840 (c. AD 1640 - c. AD 1840)

< = less than; > = greater than

Archaeological Context

Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore kill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

The following chronological sequence was recently established by prominent Stone Age archaeologists (Lombard et al 2012):

Later Stone Age

- Age Range: recent to 20-40 thousand years ago
 - General characteristics: expect variability between assemblages, a wide range of formal tools, particularly scrapers (microlithic and macrolithic), backed artefacts, evidence of hafted stone and bone tools, borers, bored stones, upper and lower grindstones, grooved stones, ostrich eggshell (OES) beads and other ornaments, undecorated/decorated OES fragments, flasks/flask fragments, bone tools (sometimes with decoration), fishing equipment, rock art, and ceramics in the final phase.
- **Ceramic or Final Later Stone Age**
 - Generally < 2 thousand years ago
 - MIS 1
 - Contemporaneous with, and broadly similar to, final Later Stone Age, but includes ceramics
 - Economy may be associated with hunter-gatherers or herders

Technological characteristics

- Stone tool assemblages are often microlithic
- In some areas they are dominated by long end scrapers and few backed microliths; in others formal tools are absent or rare
- Grindstones are common, ground stone artefacts, stone bowls and boat-shaped grinding grooves may occur
- Includes grit- or grass-tempered pottery
- Ceramics can be coarse, or well-fired and thin-walled; some times with lugs, spouts and conical bases; sometimes with decoration; sometimes shaped as bowls
- Ochre is common
- Ostrich eggshell (OES) is common
- Metal objects, glass beads and glass artefacts also occur

- **Final Later Stone Age**

- 100 – 4000 years ago
- MIS 1
- Hunter-gatherer economy

Technological characteristics

- Much variability can be expected
- Variants include macrolithic (similar to Smithfield [Sampson 1974]) and/or microlithic (similar to Wilton) assemblages
- Assemblages are mostly informal (Smithfield)
- Often characterised by large untrimmed flakes (Smithfield)
- Sometimes microlithic with scrapers, blades and bladelets, backed tools and adzes (Wilton-like)
- Worked bone is common
- OES is common
- Ochre is common

- Iron objects are rare
 - Ceramics are absent
- **Wilton**
 - 4000 – 8000 years ago
 - MIS 1
 - At some sites continues into the final Later Stone Age as regional variants (e.g. Wilton Large Rock Shelter and Cave James)

Technological characteristics

- Fully developed microlithic tradition with numerous formal tools
 - Highly standardised backed microliths and small convex scrapers (for definition of standardisation see Eerkens & Bettinger 2001)
 - OES is common
 - Ochre is common
 - Bone, shell and wooden artefacts occur
- **Oakhurst**
 - 7000 – 12 000 years ago
 - MIS 1
 - Includes Albany, Lockshoek and Kuruman as regional variants

Technological characteristics

- Flake based industry
 - Characterised by round, end, and D-shaped scrapers and adzes
 - Wide range of polished bone tools
 - Few or no microliths
- **Robberg**
 - 12 000 to 18 000 years ago
 - MIS 2

Technological characteristics

- Characterised by systematic bladelet (<26mm) production and the occurrence of outils ecailles or scaled pieces
 - Significant numbers of unretouched bladelets and bladelet cores
 - Few formal tools
 - Some sites have significant macrolithic elements
- **Early Late Stone Age**
 - 18 000 – 40 000 years ago
 - MIS 2-3
 - Informal designation
 - Also known as transitional MSA-LSA
 - Overlapping in time with final Middle Stone Age

Technological Characteristics

- Characterised by unstandardised, often microlithic, pieces and includes the bipolar technique

- Described at some sites, but not always clear whether assemblages represent a real archaeological phase or a mixture of LSA/MSA artefacts

Middle Stone Age

- Age Range: 20 000 – 30 000 years ago
- General characteristics: Levallois or prepared core techniques (for definitions see Van Peer 1992; Boeda 1995; Pleurdeau 2005) occur in which triangular flakes with convergent dorsal scars, often with faceted striking platforms, are produced. Discoidal systems (for definition see Inizan et al. 1999) and intentional blade production from volumetric cores (for definition see Pleurdeau 2005) also occur; formal tools may include unifacially and bifacially retouched points, backed artefacts, scrapers, and denticulates (for definition see Bisson 2000); evidence of hafted tools; occasionally includes marine shell beads, bone points, engraved ochre nodules, engraved OES fragments, engraved bone fragments, and grindstones.
- In the sequence below we highlight differences or characteristics that may be used to refine interpretations depending on context.
- **Final Middle Stone Age**
 - 20 000 – 40 000 years ago
 - MIS 3
 - Informal designation partly based on the Sibudu sequence

Technological characteristics

- Characterised by high regional variability that may include, e.g. bifacial tools, bifacially retouched points, hollow-based points
- Triangular flake and blade industries (similar to Strathalan and Melikane)
- Small bifacial and unifacial points (similar to Sibudu and Rose Cottage Cave)
- Sibudu point characteristics: short, stout, lighter in mass compared to points from the Sibudu technocomplex, but heavier than those from the Still Bay
- Can be microlithic
- Can include bipolar technology
- Could include backed geometric shapes such as segments, as well as side scrapers

Sibudu

- 45 000 – 58 000 years ago
- MIS 3
- Previously published as informal late Middle Stone Age and post-Howieson's Poort at Sibudu
- Formerly known post-Howieson's Poort, MSA 3 generally, and MSA III at Klasies River

Technological characteristics

- Most points are produced using Levallois technique
- Most formal retouch aimed at producing unifacial points
- Sibudu unifacial point (type fossil) characteristics: faceted platform; shape is somewhat elongated with a mean length of 43.9 mm, a mean breadth of 26.8 mm and mean thickness of 8.8 mm (L/B ratio 1.7); their mean mass is 11.8 g (Mohapi, 2012)
- Some plain butts
- Rare bifacially retouched points
- Some side scrapers are present

- Backed pieces are rare

- **Howieson's Poort**

- 58 000 – 66 000 years ago
- MIS 3-4

Technological characteristics

- Characterised by blade technology
- Includes small (<4 cm) backed tools, e.g. segments, scrapers, trapezes and backed blades
- Some denticulate blades
- Pointed forms are rare or absent

- **Still Bay**

- 70 000 – 77 000 years ago
- MIS 4-5a

Technological characteristics

- Characterised by thin (<10 mm), bifacially worked foliate or lanceolate points
- Semi-circular or wide-angled pointed butts
- Could include blades and finely serrated points (Lombard et al. 2010)

- **Pre-Still Bay**

- 72 000 – 96 000 years ago
- MIS 4-5

Technological characteristics

- Characteristics currently being determined / studied

- **Mossel Bay**

- 77 000 to —105 000 years ago
- MIS 5a-4
- Also known as MSA II at Klasies River or MSA 2b generally

Technological characteristics

- Characterised by recurrent unipolar Levallois point and blade reduction
- Products have straight profiles; percussion bulbs are prominent and often splintered or ring-cracked
- Formal retouch is infrequent and restricted to sharpening the tip or shaping the butt

- **Klasies River**

- 105 000 to —130 000 years ago
- MIS 5d-5e
- Also referred to as MSA I at Klasies River or MSA 2a generally

Technological characteristics

- Recurrent blade and convergent flake production
- End products are elongated and relatively thin, often with curved profiles
- Platforms are often small with diffused bulbs
- Low frequencies of retouch
- Denticulate pieces

- **Early Middle Stone Age**
 - Suggested age MIS 6 to MIS 8 (130 000 to —300 000 years ago)
 - Informal designation

Technological characteristics

- This phase needs future clarification regarding the designation of cultural material and sequencing
- Includes discoidal and Levallois flake technologies, blades from volumetric cores and a generalised toolkit

- **Earlier Stone Age**

- Age range: >200 000 to 2 000 000 years ago
- General characteristics: early stages include simple flakes struck from cobbles, core and pebble tools; later stages include intentionally shaped handaxes, cleavers and picks; final or transitional stages have tools that are smaller than the preceding stages and include large blades.
- In the sequence below we highlight differences or characteristics that may be used to refine interpretations depending on context.

- **ESA-MSA transition**

- 200 to —600 thousand years ago
- MIS 7-15

Technological characteristics

- Described at some sites as Fauresmith or Sangoan
- Relationships, descriptions, issues of mixing and ages yet to be clarified
- Fauresmith assemblages have large blades, points, Levallois technology, and the remaining ESA components have small bifaces
- The Sangoan contains small bifaces (<100 mm), picks, heavy and light-duty denticulated and notched scrapers
- The Sangoan is less well described than the Fauresmith

- **Acheulean**

- 300 thousand to —1.5 million years ago
- MIS 8-50

Technological characteristics

- Bifacially worked handaxes and cleavers, large flakes > 10 cm
- Some flakes with deliberate retouch, sometimes classified as scrapers
- Gives impression of being deliberately shaped, but could indicate result of knapping strategy
- Sometimes shows core preparation
- Generally found in disturbed open-air locations

- **Oldowan**

- 1.5 to >2 million years ago
- MIS 50-75

Technological characteristics

- Cobble, core or flake tools with little retouch and no flaking to predetermined patterns
- Hammerstones, manuports, cores
- Polished bone fragments/tools

Iron Age Sequence

In the northern regions of South Africa at least three settlement phases have been distinguished for early prehistoric agropastoralist settlements during the **Early Iron Age** (EIA). Diagnostic pottery assemblages can be used to infer group identities and to trace movements across the landscape. The first phase of the Early Iron Age, known as **Happy Rest** (named after the site where the ceramics were first identified), is representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase of **Diamant** is dated to AD 600 - AD 900 and was first recognized at the eponymous site of Diamant in the western Waterberg. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water.

Tom Huffman's research work shows a settlement sequence throughout the EIA, MIA and LIA for this area, which include various settlements. Focussing on the potsherd analysis of the region these settlement will include the Mzonjani facies of the Urewe Tradition dating to between AD 450 and AD 750 (Huffman 2007:127); the Leokwe facies of the same tradition dating to between AD 1050 and AD 1220 (2007:147); the Moloko facies of AD 1300-AD 1500 (2007:183); the K2 facies of the Kalundu Tradition dating to AD 1000-AD 1200 (2007:279); the Mapungubwe facies of the same dating to between AD 1300 and AD 1420 (2007:285); the Happy Rest facies of the Kalundu Tradition, dating to between AD 500 and AD 750 (2007:219). Finally it is possible that the Letaba facies of the Kalundu tradition (AD 1600 – AD 1840) could also be located in the area (Huffman 2007:267).

Later settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called *difaqane* (or *mfecane*).

Ethno-historical Context

The Soutpansberg Mountain Range stretches from east to west for approximately 130 km and is situated towards the north of Louis Trichardt (Makhado). Its width varies from 18 km to 32 km and there are several peaks with an elevation that exceed 1 400m above sea level, including Hanglip (2 550m) and Lejuma (1 753m), although the average elevation is 600m above sea level. The name of the mountain is derived from a large salt pan located near the western periphery of the mountain range. The pan is fed by a strong spring and served as a source of salt from time immemorial. The plateau of the Soutpansberg is fertile and well watered. It is suitable for the cultivation of a large range of crops. The annual rainfall is as high as 2000 mm in places. The plateau and many ravines are forested with indigenous trees such as the fern tree, Cape chestnut, ironwood, stinkwood, and yellowwood. These forests are augmented by large tracks of exotic pine and blue gum plantations. The Sand River cuts through the Soutpansberg from north to south creating a valley through which a railway line

runs. The N1 ('Great North Road') cuts through Wyllies Poort, situated to the north of Louis Trichardt (Makhado). The new road includes the two of the longest tunnels (Verwoerd tunnels) in the former Transvaal (450m and 274m). The poort was named for Lieutenant C. H. Wyllie who surveyed the first pass in 1904 (see Pistorius 2007).

VERDUN

The Verdun ruins are situated six kilometres west of Mopani station on the farm Verdun between Musina and Louis Trichardt. These Venda ruins comprise of strong walls, which attract the attention, of the Khotla or council-chamber, a typical chair for the chief. Behind the chair on the opposite side of the walls, is a short piece of wall with check patterns. These ruins are like the Machedema and Dzata ruins and form an important connection in the prehistory of South Africa. This is of great value to the archaeologist and the ethnologist.

BUYSDORP

Buyisdorp has been declared as National Monument. It is situated on the R522 road to Vivo, a settlement where the descendants of the patriarch Coenraad du Buys lived. President Paul Kruger allotted this area to the Buys community in 1888. It includes the farm Kalkoven as well as the surrounding farms up to 1000 hectares. This territory, known as Mara, is still occupied by the Buys community today.

TSHIENDEULU

An archaeological site dating back to the Late Iron Age period. The site has not yet been declared as National Monument. Tshiendeulu consist of ruins that were the original settlement of the Shi-Venda Royalty before their migration to Dzata.

DZATA RUINS

The Dzata ruins are situated between Makhado and Thohoyandou. This site was declared a National Monument on 29 June 1938. The site consists of the remains of the old capital of the chiefs of the Venda people dating back to 1400 AD.

ELIM HOSPITAL

The Elim Hospital is soon to be declared as a National Monument. It is located east of Makhado and it is the oldest Medical institution in the Limpopo Province, established in 1898.

SCHOEMANSDAL MUSEUM

Declared as National Monument on 23 July 1978. It is an open air museum situated approximately 17 km west of Makhado. The settlement originally known as Zoutpansberg or Oudedorp, was established by pioneer leaders Louis Trichardt and Andries Potgieter. In 1855 the settlement was renamed in honour of Stefanus Schoeman, successor of General Andries Potgieter, and became known as Schoemansdal, and was rebuilt to the north of the original settlement. Schoemansdal was a progressive town with a mild climate and trade took place with products from hunting activities such as ivory, with enough water and grazing for their livestock and yellow wood trees to make furniture. The reconstruction of the first settlement, which now serves as a reconstructed open air museum, illustrates the lifestyle of the pioneers between 1848 and 1852. Domestic animals such as Nguni cattle, Pedi sheep, goats and pigs can be seen. The grave of Voortrekker leader Andries Hendrik Potgieter can be seen in the cemetery. A large variety of pioneer structures can be seen at the museum such as the well known "hartbees" house. The museum collection consists of some 2500 pieces.

MACHEMMA RUINS

The ruins are an archaeological site that was declared as a National Monument on 22 January 1965. The site is located 20 km north west of the Waterpoort Station, on the farm Solvent off the Mopane road. The ruins are believed to have belonged to the Shi -Venda people, and illustrate an unmistakable affinity with the Great Zimbabwean ruins.

VALDEZIA MISSION STATION

This is the first settlement of the Swiss Missionaries in the north which became the cradle of development in the area. The Valdezia Mission station was established in 1875 by two theological students namely, Henri Bertroud and Ernest Cruex. The work was part of the Swiss Mission evangelical work aimed at touching Southern Africa with the Word of God. "Valdezia" was named after "Vaud" canton in Switzerland. The farm "Klipfontein" was bought from Mr. Watt for this purpose. The aim of the Swiss Missionaries, was to evangelize the Shangaan people. It is soon to be declared as National Monument.

FUNDUDZI

Natural and spiritual site of importance. Lake Fundudzi is situated in the upper catchment of the Mutale River, on the R523 between Sibasa and Fondwe, inside Thate Vondo forest. It is a sacred lake where, according to Venda legend, a white crocodile lives. This lake is unique in Africa due to the fact that it has been formed by a landslide. The northern bank of the Mutale River was undercut by the eroding river and then collapsed into the river valley, creating a lake behind it with an underground outlet. When the lake is full it is more than 3 km long and more than half a km wide with a maximum depth of 27 m.

HAPPY REST

The name of Happy Rest is derived from the Happy Rest culture of the Soutpansberg area. It is an early Iron Age site dating back to approximately AD 300 – 600.

Addendum 2: Description of the Recorded Sites

A system for grading the significance of heritage sites was established by the NHRA (Act No. 25 of 1999) and further developed by the South African Heritage Resources Agency (SAHRA 2007) and has been approved by ASAPA for use in southern Africa and was utilised during this assessment.

Example

A. GENERAL SITE DESCRIPTION			
Site type			
Site Period			
Physical description			
Integrity of deposits or structures			
Site extent			
B. SITE EVALUATION			
B1. HERITAGE VALUE	Yes	No	
Historic Value			
It has importance to the community or pattern of South Africa's history or precolonial history.			
It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.			
It has significance relating to the history of slavery in South Africa.			
Aesthetic Value			
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.			
Scientific Value			
It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage.			
It has importance in demonstrating a high degree of creative or technical achievement at a particular period.			
It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation.			
Social Value			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			
Tourism Value			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			
Rarity Value			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			
Representative Value			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			
B2. REGIONAL CONTEXT			
Other similar sites in the regional landscape.			
C. SPHERE OF SIGNIFICANCE	High	Medium	Low
International			
National			
Provincial			
Local			
Specific community			
D. FIELD REGISTER RATING			
National/Grade 1 [should be registered, retained]			
Provincial/Grade 2 [should be registered, retained]			

Local/Grade 3A [should be registered, mitigation not advised]	
Local/Grade 3B [High significance; mitigation, partly retained]	
Generally Protected A [High/Medium significance, mitigation]	
Generally protected B [Medium significance, to be recorded]	
Generally Protected C [Low significance, no further action]	
E. GENERAL STATEMENT OF SITE SIGNIFICANCE	
Low	
Medium	
High	
F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT	
None	
Peripheral	
Destruction	
Uncertain	
G. RECOMMENDED MITIGATION	
<ul style="list-style-type: none"> • Phase 2 heritage investigation • Permit from SAHRA 	
H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS	
<ul style="list-style-type: none"> • National Heritage Resources Act (Act No. 25 of 1999, Section 34) 	
I. PHOTOGRAPHS	

Addendum 3: Surveyor General Farm Diagram

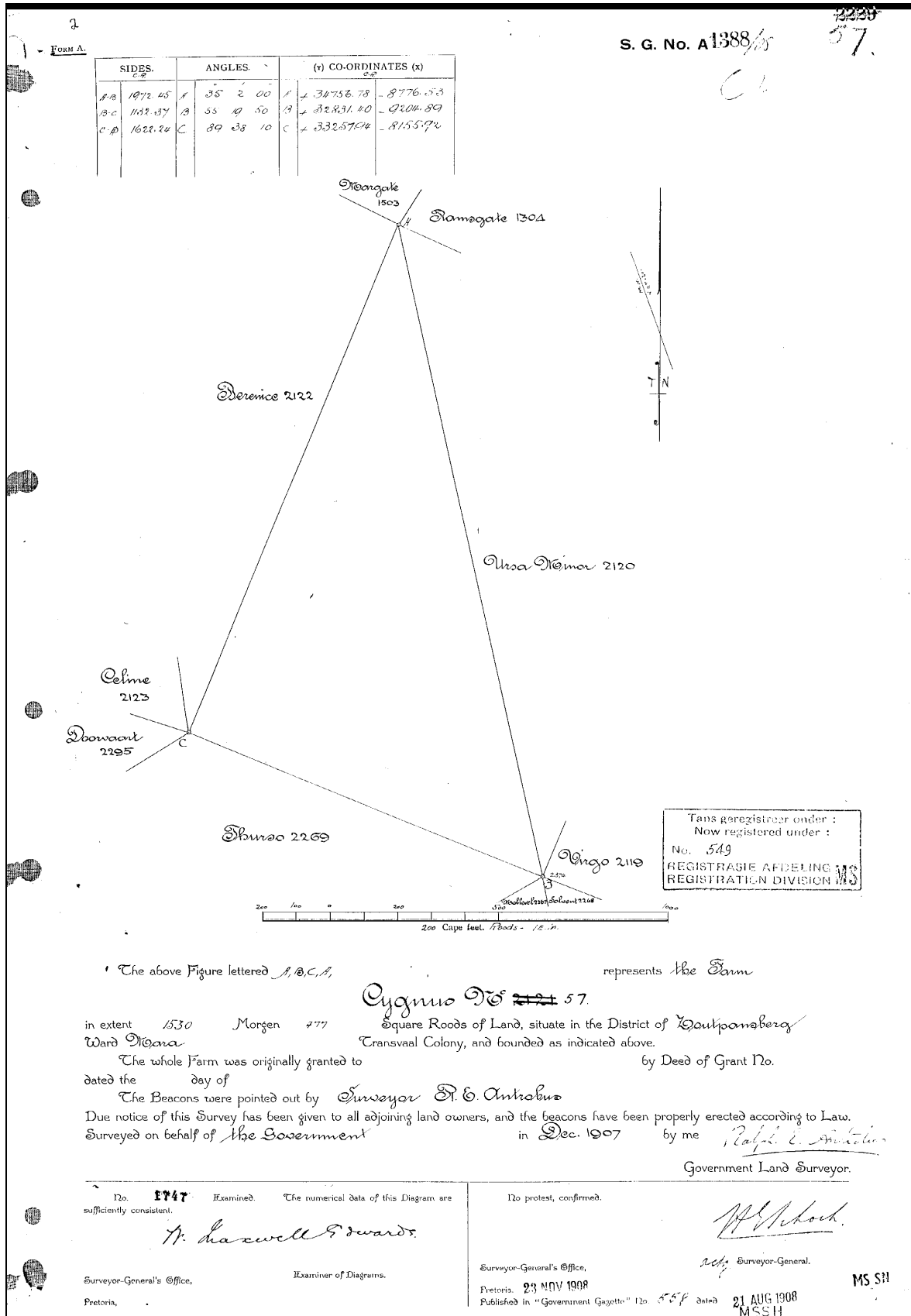


Figure 27: Surveyor General's sketch of the farm Cygnus 549 MS which was first surveyed in 1907

GOVERNMENT GAZETTE, 22 JANUARY 1965		No. 1610 3
<p>ative for the period the the thirty-first day of Seal of the Republic of the Eighteenth day of and Sixty-five. R. SWART, State President. D. C. H. UYS.</p> <p>NOTICES.</p> <p>FINANCE.</p> <p>[22 January 1965. Transfer Books of the Stocks will be closed 19th February, 1965. Dividends due on the of the Stockholders of the Transfer Books, 1964/67, 1957/66.</p> <p>TARIFFS AND EXCISE.</p> <p>[22 January 1965. COMMENCE- THE "EXPLANA- NOMEN-</p> <p>ments to the "Manuscripture" in and Corrigendum Council in section forty- 1964, become 1965.</p> <p>N. GROENEWALD, Customs and Excise.</p> <p>TRANSPORT.</p> <p>[22 January 1965. to appoint Dr. (2) of the Parli- 1926 (Act No. 53 of member of the Board, representing the further period of two 1965.</p> <p>[22 January 1965. Transport has been persons in terms of the Motor 29 of 1942), as Motor Vehicle 30th April.</p>	<p style="text-align: center;">DEPARTEMENT VAN BINNELANDSE SAKE.</p> <p>No. 57.] [15 Januarie 1965. DOEANEWET, 1955.—ONBETAAMLIKE, ONWEL- VOEGLIKE EN AANSTOOTLIKE GOEDERE: LYS No. C. 12.</p> <p>Die Raad van Beheer oor Publikasies het kragtens die bevoegdheid hom verleen by subartikel (3) (b) van artikel <i>een-en-twintig</i> van die Doeanewet 1955 (Wet No. 55 van 1955), beslis dat onderstaande goedere onbetaamlik, onwettiglik of aanstootlik is:—</p> <ol style="list-style-type: none"> 1. <i>Camera Model Guide</i>—Uitgegee deur/Published by Arnold Book Co., Ltd., London, alle uitgawes/all editions. 2. <i>Evergreen Review</i>, Vol. 2, No. 8, Spring 1959, en alle daaropvolgende uitgawes/all editions. 3. <i>Flash</i>—Uitgegee deur/Published by The Hellenic Publishing Co., Ltd., London, alle uitgawes/all editions. 4. <i>Modern Man Annual</i>—Uitgegee deur/Published by Publishers Development Corporation, Illinois, U.S.A., alle uitgawes/all editions. 5. <i>Modern Sunbathing</i> (The Nudist Picture News), Vol. 33, No. 2-188, February, 1963, en alle daaropvolgende uitgawes/all editions. 6. <i>Rally</i>—Uitgegee deur/Published by The Hellenic Publishing Co., Ltd., London, alle uitgawes/all editions. <p style="text-align: center;">A. J. VAN WYK, namens Voorsitter, Raad van Beheer oor Publikasies.</p> <hr/> <p style="text-align: center;">DEPARTEMENT VAN ONDERWYS, KUNS EN WETENSKAP.</p> <p>No. 112.] [22 Januarie 1965. VERKLARING VAN 'N GEDENKWAARDIGHEID.</p> <p>Kragtens die bevoegdheid my verleen by paragraaf (a) van subartikel (1) van artikel <i>agt</i> van die Wet op Natuurlike en Historiese Gedenkwaardighede en Oudhede, 1934 (Wet No. 4 van 1934), soos gewysig, verklaar ek hierby die geologiese verskynsel, Dwarsrivier, Lydenburg, as 'n natuurlike gedenkwaardigheid.</p> <p style="text-align: center;"><i>Beskrywing.</i></p> <p>Die geologiese verskynsel, Dwarsrivier, Lydenburg, 2-5416 morg grond groot, geleë op die plaas Dwarsrivier No. 372—K.T., distrik Lydenburg, soos aangedui in Kaart L.G. No. 4801/64, in Julie 1964, opgemeet deur landmeter J. S. Weyers.</p> <p style="text-align: center;"><i>Wetenskaplike belang.</i></p> <p>'n Unieke voorkoms van chromietbande in anortosiet wat van groot wetenskaplike belang is.</p> <p style="text-align: center;">M. VILJOEN, Adjunk-minister van Onderwys, Kuns en Wetenskap.</p> <hr/> <p>No. 113.] [22 Januarie 1965. VERKLARING VAN 'N GEDENKWAARDIGHEID.</p> <p>Kragtens die bevoegdheid my verleen by paragraaf (a) van subartikel (1) van artikel <i>agt</i> van die Wet op Natuurlike en Historiese Gedenkwaardighede en Oudhede, 1934 (Wet No. 4 van 1934), soos gewysig, verklaar ek hierby die Macheemma-ruïnes as 'n historiese gedenkwaardigheid.</p> <p style="text-align: center;"><i>Beskrywing.</i></p> <p>Die Macheemma-ruïnes, Solvent, Soutpansberg, 2-1962 morg grond groot, op die plaas Solvent No. 616—M.S., distrik Soutpansberg, met die ruïnes daarop, soos aangedui op Kaart L.G. No. A. 5309/64, in September 1964 opgemeet deur Landmeter C. F. Sutton.</p> <p style="text-align: center;"><i>Historiese belang.</i></p> <p>Hierdie ruïnes is verwant aan die Zimbabwe-kultuur en is van groot wetenskaplike belang.</p> <p style="text-align: center;">M. VILJOEN, Adjunk-minister van Onderwys, Kuns en Wetenskap.</p>	<p style="text-align: center;">DEPARTMENT OF THE INTERIOR.</p> <p>No. 57.] [15 January 1965. CUSTOMS ACT, 1955.—INDECENT, OBSCENE AND OBJECTIONABLE GOODS: LIST No. C. 12.</p> <p>The Publications Control Board, has, in terms of the powers vested in it by sub-section (3) (b) of section <i>twenty-one</i> of the Customs Act, 1955 (Act No. 55 of 1955), decided that the undermentioned goods are indecent, obscene or objectionable:—</p> <p style="text-align: center;">A. J. VAN WYK, for Chairman, Publications Control Board. 15-22</p> <hr/> <p style="text-align: center;">DEPARTMENT OF EDUCATION, ARTS AND SCIENCE.</p> <p>No. 112.] [22 January 1965. PROCLAMATION OF A MONUMENT.</p> <p>By virtue of the powers vested in me by paragraph (a) of sub-section (1) of section <i>eight</i> of the Natural and Historical Monuments, Relics and Antiques Act, 1934 (Act No. 4 of 1934), as amended, I hereby proclaim the geological exposure, Dwarsrivier, Lydenburg, to be a natural monument.</p> <p style="text-align: center;"><i>Description.</i></p> <p>The Geological Exposure, Dwarsrivier, Lydenburg, 2-5416 morgen of land in extent, situate on the farm Dwarsrivier No. 372—K.T., District of Lydenburg, as shown on Diagram S.G. No. 4801/64 surveyed by Surveyor J. S. Weyers in July, 1964.</p> <p style="text-align: center;"><i>Scientific Interest.</i></p> <p>A unique occurrence of chromitite bands in anorthosite, of great scientific importance.</p> <p style="text-align: center;">M. VILJOEN, Deputy-Minister of Education, Arts and Science.</p> <hr/> <p>No. 113.] [22 January 1965. PROCLAMATION OF A MONUMENT.</p> <p>By virtue of the powers vested in me by paragraph (a) of sub-section (1) of section <i>eight</i> of the Natural and Historical Monuments, Relics and Antiques Act, 1934 (Act No. 4 of 1934), as amended, I hereby proclaim the Macheemma Ruins to be a historical monument.</p> <p style="text-align: center;"><i>Description.</i></p> <p>The Macheemma Ruins, Solvent, Soutpansberg, 2-1962 morgen of land in extent, on the farm Solvent No. 615—M.S., District of Soutpansberg, with the ruins thereon, as indicated on Diagram S.G. No. A. 5309/64 surveyed by Surveyor C. F. Sutton in September, 1964.</p> <p style="text-align: center;"><i>Historical interest.</i></p> <p>These ruins are related to the Zimbabwe culture and are of great scientific importance.</p> <p style="text-align: center;">M. VILJOEN, Deputy Minister of Education, Arts of Science.</p> <p style="text-align: right;">3</p>

Figure 28: The declaration of the Macheemma ruins as a Provincial heritage site in 1965

Addendum 4: Relocation of Graves

Marked graves younger than 60 years do not fall under the protection of the NHRA (Act No. 25 of 1999) with the result that exhumation, relocation and reburial can be conducted by an undertaker. This will include logistical aspects such as social consultation, purchasing of plots in cemeteries, procurement of coffins, etc. Other legislative measures which may be pertinent include the Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925), Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003, Ordinance on Exhumations (Ordinance No. 12 of 1980) as well as any local and regional provisions, laws and by-laws that may be in place.

Marked graves older than 60 years are protected by the NHRA (Act No. 25 of 1999) and as a result an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. Note that unmarked graves are by default regarded as older than 60 years and therefore also falls under the NHRA (Act No. 25 of 1999, Section 36).

The relocation of graves entails the following procedure:

- Notices of intent to relocate the graves must be put up at the burial site for a period of 60 days. This should contain contact information where communities and family members can register as interested and affected parties. All information pertaining to the identification of the graves must be documented for the application of a SAHRA permit. All notices must be in at least 3 languages, of which English is one. This is a requirement by law.
- These notices of intention must also be placed in at least two local newspapers and have the same information as above.
- Local radio stations can also be used to try contact family members. This is not required by law, but can be helpful.
- During this time (60 days) a suitable cemetery must be identified near to the development or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account.
- Once the 60 days have passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.
- Once the permit has been issued, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any remains and any additional objects found in the grave.

Information needed for the SAHRA permit application

- The permit application must be done by an archaeologist.
- A map of the area where the graves have been located.
- A survey report of the area prepared by an archaeologist.
- All the information on the families that have identified graves.
- A letter of permission from the landowner granting permission to the developer to exhume and relocate the graves.

- A letter (or proof of purchase of the plots) from the new cemetery confirming that the graves will be reburied there.
- Details of the farm name and number, magisterial district and GPS coordinates of the gravesite.

Graves are generally be classified into four categories. These are:

- Graves younger than 60 years;
- Graves older than 60 years, but younger than 100 years;
- Graves older than 100 years; and
- Graves of victims of conflict or of individuals of royal descent.