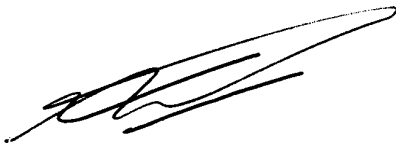


**PROPOSED SPENCER VENULU POWER LINE PROJECT,
LIMPOPO PROVINCE**

HERITAGE IMPACT ASSESSMENT



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EXECUTIVE SUMMARY

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

The importance of working with and following the guidelines laid down by the South African Heritage Resources Agency cannot be stressed enough.

During the survey several sites of importance were found in the proposed development area, of which most might be impacted on.

The following outline the findings of the report:

Archaeological Sites

Anthill sites and other ceramic find spots

Number of sites found:

Thirty-Seven (37) find spots were identified during the survey. Consisting of 19 anthill finds and 18 ceramic scatters.

Iron smelting find spots

Number of sites found:

Three Iron Smelting sites were identified during the survey.

Ash Deposits

Number of sites found:

Three (3) sites found.

Graves

Number of sites found:

Five cemeteries (5) that consisted of 7 graves.

Historical structures

Number of sites found:

Ten sites found

None of the sites is of such an importance to necessitate the realignment of the route for the power line.

Refer to Section 9 for more detail on mitigation measures.

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1. INTRODUCTION

Matakoma Consultants was contracted by Wandma Consulting Services to conduct a Heritage Assessment for the proposed construction of a 132KV King Bird, 50km distribution power line from Spencer to Venulu in the Mopani and Vhembe Districts of the Limpopo Province.

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

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

During the survey, several sites of cultural significance were identified. These sites were recorded by means of photos, GPS location, and description. Possible impacts were identified and mitigation measures are proposed in the following report.

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

2. APPROACH AND METHODOLOGY

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

2.1 Phase 1

The first phase comprised of a desktop study with the aim of gathering data to compile a background history of the area. This desktop study covered the following:

2.1.1 Archival research

Utilising data stored in the National as well as Transvaal Archives for information gathering. The aim is to compile a data list of archaeological sites, historical sites, graves, architecture, oral history, and ethnographical information on the inhabitants of the area.

2.2 Physical Surveying

Due to the nature of cultural remains that occur below surface, a physical walk through of the study area was conducted.

Aerial photographs and 1:50 000 maps of the area were consulted and literature of the area were studied before undertaking the survey. The purpose of this was to identify topographical areas of possible historic and pre-historic activity. The proposed route and realigned route was surveyed over six days, by means of vehicle and extensive surveys on foot by an archaeologist. All sites discovered inside the proposed development area were plotted on 1:50 000 maps, and their GPS co-ordinates noted. 35mm photographs on digital film were taken of all the sites found.

3. HISTORICAL BACKGROUND OF STUDY AREA

3.1 Iron Age (general)

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

- The Early Iron Age: Most of the first millennium AD.

- The Middle Iron Age: 10th to 13th centuries AD

- The Late Iron Age: 14th century to colonial period.

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

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

This scenario provides a strong argument that metallurgical technology was introduced from elsewhere and did not develop locally. To effectively smelt iron oxide, ore by reduction requires a temperature of at least 1100°C that is 400°C below the metals melting point. To obtain a temperature this high was probably unattainable in ancient furnaces. But the prolonged heating of ore in contact with abundant charcoal, needed to obtain a sufficiently high temperature for the

reduction of the oxide ores, enable the iron to obtain enough carbon to make it mild steel. If this mild steel was repeatedly heated and hammered during the forge process, it will harden.

Early Iron Age

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

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

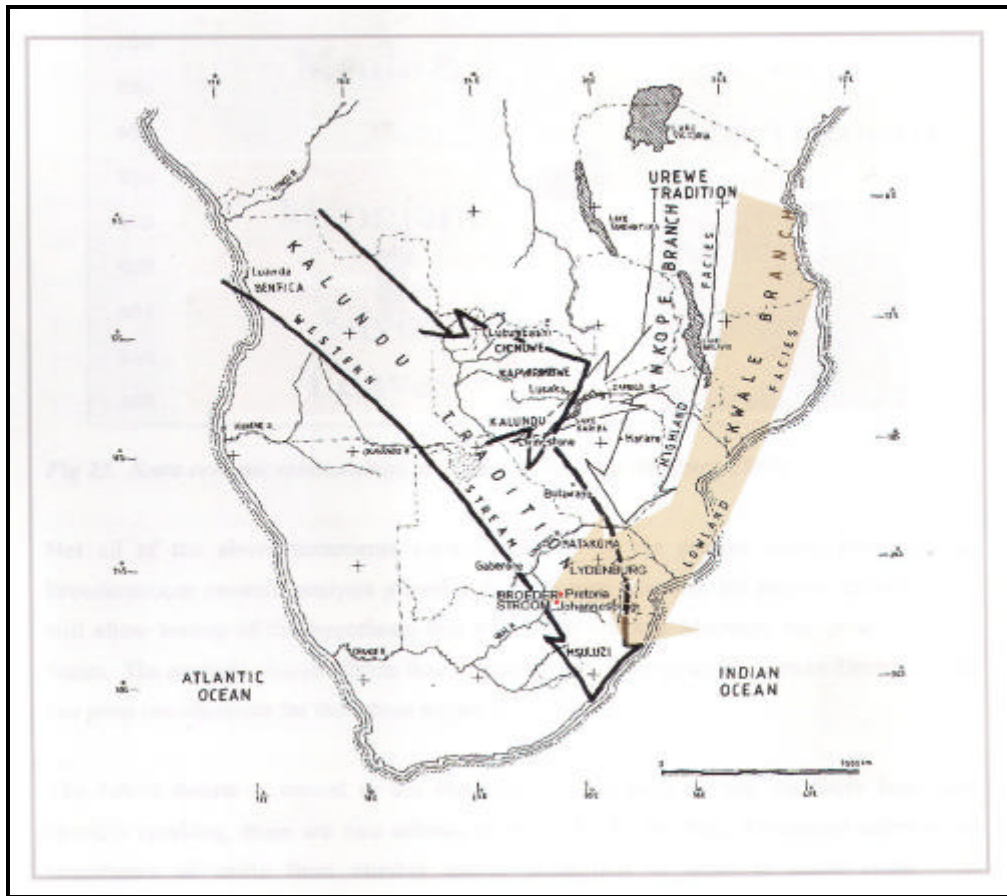


Figure 1 - Western extension of Eastern Stream into the interior

4. WORKING WITH LEGISLATION

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

- These sites are classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999) section 3 (3). (Refer to Section 9 of this document for assessment)
- This site should be managed through using the National Heritage Recourses Act 1999 (Act No 25 of 1999) sections 4, 5 and 6 and sections 39-47.

- Please refer to Section 9 for Management Guidelines.

5. ASSESSMENT CRITERIA

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

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

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

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

A - No further action necessary;

B - Mapping of the site and controlled sampling required;

C - Preserve site, or extensive data collection and mapping of the site; and

D - Preserve site

(After Huffman, 2002)

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

5.1 Impact

The potential environmental impacts that may result from mine activities.

5.1.1 *Nature and existing mitigation*

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

5.2 Evaluation

5.2.1 Significance

The significance rating scale is as follows:

HIGH: Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these.

In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.

MODERATE: Impact would be real but not substantial within the bounds of those, which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible. In the case of positive impacts, other means of achieving these benefits would be about equal, cost and effort.

LOW: Impact would be of low order and with little effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved or little would be required, or both. In case of positive impacts, alternative means of achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.

VERY LOW: Impact would be negligible. In the case of negative impacts, almost no mitigation and/or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would be almost all likely to be better, in one or a number of ways, than this means of achieving the benefit.

NO EFFECT: There would be no impact at all - not even a very low impact on the system or any of its parts.

5.2.2 Certainty

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

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

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

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

5.2.3 Duration

SHORT TERM: 0 to 5 years

MEDIUM: 6 to 20 years

LONG TERM: more than 20 years

DEMOLISHED: site will be demolished or is already demolished

Example

Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	High	> 90% sure	Long: > 20 years	A

6.SITES OF SIGNIFICANCE

The following section outlines the sites identified in the development area, and evaluate them according to the evaluation criteria of the National Heritage Resources Act.

6.1 Anthill Ceramic Finds

6.1.1 The identification and mapping of all heritage resources in the affected area

Along the route of the power line nineteen (19) finds were made consisting of pots imbedded in anthills. At a few of these sites, intact vessels were found embedded into the anthill. These pots were filled with water and covered with rocks and sticks. This was done in order to capture the ants that would fall into the water. Some of these sites are only represented by fragmented ceramics of which a large number was decorated.

These sites vary in age from archaeological to more recent judging from the recent disturbances of some of the find sites. The ceramic decorations found on the ceramic fragments cannot be used to date the sites because the ceramic facies, known as Letaba ceramics, are associated with dates from 1600 AD to recent times.

This process of ant harvesting is still practised today, the tools just differ from ceramics to plastic buckets.



Figure 2 – Ceramics found on anthill



Figure 3 – Site photograph



Figure 4 –Modern methods

6.1.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).

These sites are not significant as no context, deposit, or stratigraphy is present to associate these sites with. Due to the small area of impact during construction, these sites will in most cases not be influenced by the construction of the power line and siting of the pylon footprints. A low

negative impact is foreseen if any of these anthill find site are to be destroyed.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- Section 3(3)(f) - its importance in demonstrating a high degree of creative or technical achievement at a particular period;

6.1.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.

A low negative impact is foreseen if any of these anthill-find-sites are to be destroyed.

The project will provide electricity that is required by the numerous rural homesteads spread over the Mopani and Vhembe areas. The preservation of this site will not contribute to the overall social and economic situation of the area.

Impact Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Unsure	Long Term	A

6.1.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Not Applicable.

6.1.5 If heritage resources will be affected by the proposed development, the consideration of alternatives

The best option and first price would be the preservation of the site *in situ*.

6.1.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development

If the site were to be preserved *in situ*, a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

If the site is to be destructed, it would however be advisable that a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

If during mitigation it is found that the site is more than just a surface scatter, the archaeologist on site can collect and mitigate any subsequent finds. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

6.1.7 List of find sites and coordinates

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
3	2330AB-MHC003	-23.12463	30.48528	Anthill ceramics
9	2330BA-MHC005	-23.15162	30.52440	Anthill ceramics
15	2330BA-MHC011	-23.23119	30.53595	Anthill ceramics
17	2330BA-MHC013	-23.24441	30.53545	Anthill ceramics
18	2330BA-MHC014	-23.24778	30.53505	Anthill ceramics
21	2330BC-MHC006	-23.36723	30.50936	Anthill ceramics
25	2330AD-MHC002	-23.41789	30.48336	Anthill ceramics
29	2330AD-MHC014	-23.47358	30.39255	Anthill ceramics
32	2330AD-MHC005	-23.43522	30.45930	Anthill ceramics
33	2330AD-MHC004	-23.43086	30.46545	Anthill ceramics
34	2330AD-MHC001	-23.40708	30.49875	Anthill ceramics
38	2330BC-MHC005	-23.36084	30.51103	Anthill ceramics
43	2330BA-MHC017	-23.15776	30.52797	Anthill ceramics
45	2330AD-MHC016	-23.48571	30.38840	Anthill ceramics
46	2330AD-MHC012	-23.47356	30.39387	Anthill ceramics
52	2330BA-MHC019	-23.17951	30.53596	Anthill ceramics
53	2330BA-MHC020	-23.18201	30.53723	Anthill ceramics
55	2330BA-MHC022	-23.20263	30.53633	Anthill ceramics
56	2330BA-MHC024	-23.20455	30.53571	Anthill ceramics

6.2 Graves

6.2.1 The identification and mapping of all heritage resources in the affected area

Along the route of the power line five (5) find spots consisting of graves were made. Most of these graves had no formal dressing and consisted of a stone lining demarcating the grave. (See Figure 4)



Figure 5 – Grave *in situ*

6.2.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).

No identifying dates were seen on the graves thus making it difficult to classify the graves under the Heritage Resources Act's sixty-year rule. However, in the absence of any dates it must be assumed that the graves are older than sixty years until it could be proven otherwise.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

Section 3(3)(g) – its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

6.2.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.

It seems unlikely that the graves will be impacted on directly by the construction activities of the power line. However, the possibility does exist for a high negative impact if construction were to take place in the area of the graves.

The project will provide electricity that is required by the numerous rural homesteads spread over the Mopani and Vhembe areas. The preservation of this site will not contribute to the overall social and economic situation of the area.

Impact Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	High	Unsure	Long Term	C

6.2.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Most of the locals consulted with regards to graves and cemeteries expressed a need for the preservation of the cemeteries. They however also indicated that if in the case of relocation of such a cemetery they would like to be consulted and be part of the process.

6.2.5 If heritage resources will be affected by the proposed development, the consideration of alternatives

The best option and first price would be the preservation of the cemetery *in situ*. If the development is of such a nature that the site will be severely impacted on the graves will have to be relocated.

6.2.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development

If the graves were to be preserved *in situ*, a buffer zone of at least 20 meters will have to be kept around the cemetery as to facilitate the protection of the site during construction.

In the instance that the cemetery needs to be relocated, this must be done with adherence to all legal requirements as well as an extensive social consultation process required within the process. It is well advised that a company with a proven record of accomplishment be used to manage and

complete such a project. Matakoma Heritage Consultants could be contacted for assistance in this regard.

6.2.7 List of find sites and coordinates

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
4	2330AB-MHC004	-23.12665	30.49353	Graves
6	2330BA-MHC002	-23.13553	30.50440	Graves
12	2330BA-MHC008	-23.15442	30.52520	Graves
19	2330BC-MHC001	-23.28097	30.53378	Graves
57	2330BC-MHC003	-23.31442	30.52057	Graves

6.3 IRON SMELTING SITES

6.3.1 The identification and mapping of all heritage resources in the affected area

Three (3) Iron-smelting sites have been recorded along the proposed route of the Spencer Venulu power line. These sites are characterised by open spaces in the vegetation together with concentrations of Iron slag.

Cultural artefacts on these sites generally consist of surface scatters that contain fragmented *tuyere* pipes and iron slag. Several vitrified ceramic pieces have been noted on these sites but these ceramics did not yield any diagnostic markings. No traces have been found of the actual furnaces although large clay pieces that might have been part of the furnace walls have been found like at **50**.

At site **50** a cluster of isolated concentrations of slag have been found forming a concentric circle. Large pieces of *tuyere* pipes are found associated with these iron slag clusters. It might be the position of several furnaces. Refer to sketch.



Figure 6 – Iron Slag



Figure 7 - Fragmented *Tuyere* pipe

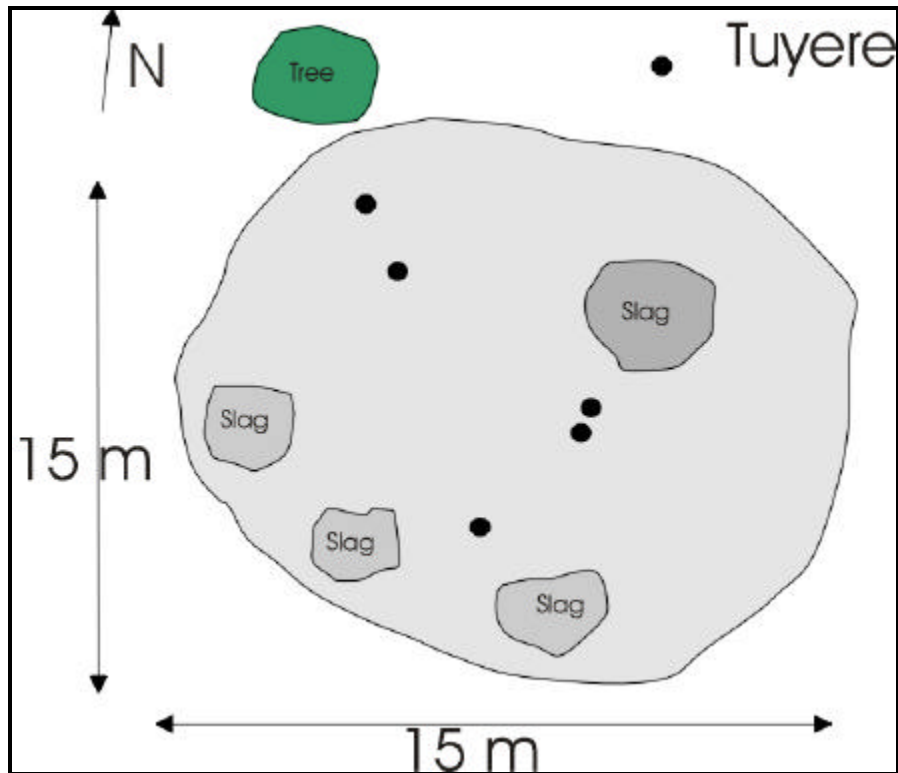


Figure 8 - Un-scaled plan of find site 50

6.3.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).

The concentration of slag, vitrified ceramic pieces, and ceramic fragments makes the area highly sensitive and must be handled as such. Without excavations, it would be impossible to establish the extent of the smelting sites.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;

- Section 3(3)(d) – its importance in demonstrating the principle characteristics of a particular class of South Africa’s natural or cultural places or objects.
- Section 3(3)(f) - its importance in demonstrating a high degree of creative or technical achievement at a particular period;

6.3.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.

It is envisaged that the proposed power line development might have a high negative impact on the sites.

The project will provide electricity that is required by the numerous rural homesteads spread over the Mopani and Vhembe areas. The preservation of this site will not contribute to the overall social and economic situation of the area. However, it must be stated that the collection of data from the site will broaden and might answer some of the current academic research questions in the area.

Impact Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	High	Possible	Long Term	C

6.3.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Not applicable.

6.3.5 If heritage resources will be affected by the proposed development, the consideration of alternatives

The best option and first price would be the preservation of the site *in situ*. If the proposed development is of such a nature that the site will be severely impacted on the mitigation of the site will have to be done.

6.3.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development

If the site were to be preserved *in situ*, it will have to be fenced off and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

In the instance that the site needs to be destructed, an archaeologist needs to mitigate the site. Mitigation could include documentation of the site by means of site sketches and excavation to collect a representative sample for classification and possible dating, a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

After mitigation, a permit will have to be applied for to destruct the site. This can only be issued by the South African Heritage Resources Agency. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

6.3.7 List of find sites and coordinates

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
13	2330BA-MHC009	-23.21778	30.53605	Smelting site
40	2330BA-MHC015	-23.22106	30.53560	Smelting site
50	2330BA-MHC018	-23.24862	30.53624	Smelting site

6.4 Ceramic Scatters

6.4.1 The identification and mapping of all heritage resources in the affected area

Along the extent of the power line area, nineteen (19) low-density ceramic scatters have been found. These finds are referred to as find spots.

These find spots consist of low concentrations of un-diagnostic ceramics. These find sites are generally exposed by the extensive sheet erosion that occurs throughout the area.

These find spots are not regarded as significant as no other cultural features like ash middens or structures have been found in association with these low density find spots. These find spots are interpreted as being part of old agricultural fields or individual pots that broke. It might also be that the ceramics have migrated down slope from an actual Iron Age site due to the extensive sheet erosion.



Figure 9 – Undecorated ceramics



Figure 10 - General site condition

6.4.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).

The low-density concentration of ceramic fragments makes the area of low sensitive and must be handled as such. It must however be noted that the possibility always exists for a large stratified deposit being present at such find sites.

6.4.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.

It is envisaged that the proposed power line development might have a low negative impact on the sites.

The project will provide electricity that is required by the numerous rural homesteads spread over the Mopani and Vhembe areas. The preservation of this site will not contribute to the overall social and economic situation of the area.

Impact Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Possible	Long Term	A

6.4.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Not applicable.

6.4.5 If heritage resources will be affected by the proposed development, the consideration of alternatives

The best option and first price would be the preservation of the site *in situ*.

6.4.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development

If the site were to be preserved *in situ*, it will have to be fenced off and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

If the site is to be destructed, it would however be advisable that a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

If during mitigation it is found that the site is more than just a surface scatter, the archaeologist on site can collect and mitigate any subsequent finds. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

6.4.7 List of find sites and coordinates

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
2	2330AB-MHC002	-23.12413	30.48083	Ceramic scatter
5	2330BA-MHC001	-23.13530	30.50410	Ceramic scatter
7	2330BA-MHC003	-23.13833	30.50807	Ceramic scatter
8	2330BA-MHC004	-23.14107	30.51183	Ceramic scatter
14	2330BA-MHC010	-23.21941	30.53644	Ceramic scatter
20	2330BC-MHC004	-23.35495	30.51294	Ceramic scatter
23	2330BC-MHC010	-23.37658	30.50741	Ceramic scatter
24	2330BC-MHC012	-23.40143	30.50216	Ceramic scatter
26	2330AD-MHC003	-23.42658	30.47119	Ceramic scatter
28	2330AD-MHC013	-23.47286	30.39331	Ceramic scatter
30	2330AD-MHC015	-23.47900	30.39084	Ceramic scatter
36	2330BC-MHC009	-23.37711	30.50745	Ceramic scatter
41	2330BA-MHC016	-23.21898	30.53617	Ceramic scatter
44	2330AD-MHC017	-23.48604	30.38767	Ceramic scatter
48	2330AD-MHC010	-23.45808	30.42113	Ceramic scatter
49	2330AD-MHC009	-23.45640	30.42408	Ceramic scatter
54	2330BA-MHC021	-23.19051	30.53711	Ceramic scatter
58	2330AD-MHC008	-23.44774	30.43948	Ceramic scatter

6.5 Ash Deposits

6.5.1 The identification and mapping of all heritage resources in the affected area

Three (3) Sensitive Iron Age sites have been located during the field survey for the proposed route of the Spencer Venulu power line. The sites differ from the find spots, as it is believed that these sites could contain archaeological deposits.

These sites are characterised by high concentrations of ceramics and ash deposits. Several of these sites have been exposed by ploughing activity in the area. Decorated ceramics indicate that these sites might belong to the Letaba ceramic tradition dating to 1600 AD.



Figure 11 – Ash deposit in ploughed field

6.5.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).

The concentration of ash deposits, decorated ceramics, bone, and other ceramic fragments makes the area highly sensitive and must be handled as such. Without excavations, it would be impossible to establish the extent of the sites.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- Section 3(3)(d) – its importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.
- Section 3(3)(f) - its importance in demonstrating a high degree of creative or technical achievement at a particular period;

6.5.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.

It is envisaged that the proposed power line development might have a moderate negative impact on the sites.

The project will provide electricity that is required by the numerous rural homesteads spread over the Mopani and Vhembe areas. The preservation of this site will not contribute to the overall social and economic situation of the area. However, it must be stated that the collection of data from the site will

broaden and might answer some of the current academic research questions in the area.

Impact Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	Moderate	Possible	Long Term	B

6.5.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Not applicable.

6.5.5 If heritage resources will be affected by the proposed development, the consideration of alternatives

The best option and first price would be the preservation of the site *in situ*. If the proposed development is of such a nature that the site will be severely impacted on the mitigation of the site will have to be done.

6.5.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development

If the site were to be preserved *in situ*, it will have to be fenced off and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

In the instance that the site needs to be destructed, an archaeologist needs to mitigate the site. Mitigation could include documentation of the site by means of site sketches and excavation to collect a representative sample for classification, a watching brief be agreed upon by which an archaeologist is

onsite during construction to document and mitigate any features and finds made during construction.

After mitigation, a permit will have to be applied for to destruct the site. This can only be issued by the South African Heritage Resources Agency. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

6.5.7 List of find sites and coordinates

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
31	2330AD-MHC006	-23.44120	30.45082	Ash Deposit
37	2330BC-MHC007	-23.36598	30.51008	Ash Deposit
47	2330AD-MHC011	-23.47081	30.39877	Ash Deposit

6.6 Historical Structures

6.6.1 The identification and mapping of all heritage resources in the affected area

Ten (10) historical homesteads have been recorded along the proposed route of the Spencer Venulu power line. These homesteads can be divided in to three distinct groups.

The first group consists of square foundations build with mud. The second group are made up of square foundations build with dry stonewalling. The third group consists of mud brick rondawels.

These sites generally consist of farm labourers housing with associated features like ash middens containing industrial rubble including glass and corrugated Iron.

It is not possible to obtain an absolute date for these sites with the available data but it is quite possible that they are older than sixty years and are therefore protected by the National Heritage Resources Act (25 of 1999). It must be kept in mind that these sites might contain unmarked graves and it is therefore recommended that these sites best be undisturbed.



Figure 12 – Mud brick foundations



Figure 13 - Dry stone walling



Figure 14 - Rondawel foundations



Figure 15 – Hut floor remains

6.6.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).

The concentration of settlement rubble, and ceramic fragments makes the area sensitive and must be handled as such. Without excavations, it would be impossible to establish the extent and age of the sites.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- Section 3(3)(f) - its importance in demonstrating a high degree of creative or technical achievement at a particular period;

6.6.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.

It is envisaged that the proposed power line development might have a low negative impact on the sites. If in the case of unmarked graves the impact can be High negative and major mitigation will be required if such graves are uncovered during construction.

The project will provide electricity that is required by the numerous rural homesteads spread over the Mopani and Vhembe areas. The preservation of this site will not contribute to the overall social and economic situation of the area.

Impact Evaluation

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low/Moderate	Possible	Long Term	B

6.6.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Not applicable.

6.6.5 If heritage resources will be affected by the proposed development, the consideration of alternatives

The best option and first price would be the preservation of the site *in situ*. If the proposed development is of such a nature that the site will be severely impacted on, minor mitigation of the site will have to be done.

These sites must always be marked for the possibility of unmarked graves that could be disturbed.

6.6.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development

If the site were to be preserved *in situ*, it will have to be fenced off and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

If the site is to be destructed, it would however be advisable that a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

If during mitigation it is found that the site is more than just a surface scatter, the archaeologist on site can collect and mitigate any subsequent finds. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

6.6.7 List of find sites and coordinates

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
1	2330AB-MHC001	-23.11945	30.47383	Historic structures
10	2330BA-MHC006	-23.15355	30.52592	Historic structures
11	2330BA-MHC007	-23.15418	30.52570	Historic structures
16	2330BA-MHC012	-23.24327	30.53637	Historic structures
22	2330BC-MHC008	-23.37576	30.50738	Historic structures
42	2330BA-MHC023	-23.17887	30.53474	Historic structures
51	2330BA-MHC025	-23.15693	30.52632	Historic structures
SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
27	2330AD-MHC007	-23.44377	30.44653	Hut floors and settlem
35	2330BC-MHC011	-23.39930	30.50288	Hut floors and settlem
39	2330BC-MHC002	-23.31468	30.52159	Hut floors and settlem

7. ASSUMPTIONS AND LIMITATIONS

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

Vegetation height during the survey also influenced the visibility of cultural material and features.

8. LEGAL AND POLICY REQUIREMENTS

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will apply until a survey has been done and identified heritage resources are formally protected.

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

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

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

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

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

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

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

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

If it is necessary to refer to any of the above-mentioned objects, the National Heritage Act (Act 25 of 1999 Sections 31-38) are included in Appendix 2.

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

- Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).
- Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority. Graves in the category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation. If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is

required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

Refer to **Annexure A** for further information on legislation.

9. ASSESSMENT AND RECOMMENDATIONS

9.1 ASSESSMENT

*All the sites identified during the survey are mapped on the map provided in **Annexure C**.*

*A list of coordinates of the sites is provided in **Annexure D**.*

Refer to Section 6 sub paragraphs 5 and 6 of each site for recommendations.

A summary of the recommendations for each of the main heritage sites follow:

Archaeological Sites

Anthill sites and other ceramic find spots

Number of sites found:

Thirty Seven find spots were identified during the survey. Consisting of 19 anthill finds and 18 ceramic scatters.

Recommendation:

The best option and first price would be the preservation of the site *in situ*.

If the site were to be preserved *in situ*, a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

If the site is to be destructed, it would however be advisable that a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

If during mitigation it is found that the site is more than just a surface scatter, the archaeologist on site can collect and mitigate any subsequent finds. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

Iron smelting find spots

Number of sites found:

Three Iron Smelting sites were identified during the survey.

Recommendation:

The best option and first price would be the preservation of the site *in situ*. If the proposed development is of such a nature that the site will be severely impacted on the mitigation of the site will have to be done.

If the site were to be preserved *in situ*, it will have to be fenced of and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

In the instance that the site needs to be destructed, an archaeologist needs to mitigate the site. Mitigation could include documentation of the site by means of site sketches and excavation to collect a representative sample for classification and possible dating, a watching brief be agreed upon by which an archaeologist is onsite during

construction to document and mitigate any features and finds made during construction.

After mitigation, a permit will have to be applied for to destruct the site. This can only be issued by the South African Heritage Resources Agency. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

Ash Deposits

Number of sites found:

Three (3) sites found

Recommendation:

The best option and first price would be the preservation of the site *in situ*. If the proposed development is of such a nature that the site will be severely impacted on the mitigation of the site will have to be done. If the site were to be preserved *in situ*, it will have to be fenced off and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

In the instance that the site needs to be destructed, an archaeologist needs to mitigate the site. Mitigation could include documentation of the site by means of site sketches and excavation to collect a representative sample for classification, a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

After mitigation, a permit will have to be applied for to destruct the site. This can only be issued by the South African Heritage Resources Agency. It is well advised that a company with a proven record of

accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

Graves

Number of sites found:

Five cemeteries (5) that consisted of 7 graves.

Recommendation:

The best option and first price would be the preservation of the cemetery *in situ*. If the development is of such a nature that the site will be severely impacted on the graves will have to be relocated.

If the graves were to be preserved *in situ*, a buffer zone of at least 20 meters will have to be kept around the cemetery as to facilitate the protection of the site during construction.

In the instance that the cemetery needs to be relocated, this must be done with adherence to all legal requirements as well as an extensive social consultation process required within the process. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants could be contacted for assistance in this regard.

Historical structures

Number of sites found:

Ten sites found

Recommendation:

If the proposed development is of such a nature that the site will be severely impacted on, minor mitigation of the site will have to be done.

These sites must always be marked for the possibility of unmarked graves that could be disturbed.

If the site were to be preserved *in situ*, it will have to be fenced off and a buffer zone of at least 10 meters will have to be kept around the site as to facilitate the protection of the site during construction.

If the site is to be destructed, it would however be advisable that a watching brief be agreed upon by which an archaeologist is onsite during construction to document and mitigate any features and finds made during construction.

If during mitigation it is found that the site is more than just a surface scatter, the archaeologist on site can collect and mitigate any subsequent finds. It is well advised that a company with a proven record of accomplishment be used to manage and complete such a project. Matakoma Heritage Consultants can facilitate this process.

General Comments

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

Refer to **Annexure E** for an outline of the proposed archaeological watching brief that is recommended for this project.

The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposit may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition does not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains *in situ*.

The purpose of a watching brief is:

- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works
- To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.
- A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.
- The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.

Matakoma Heritage Consultants can be contacted on the way forward in this regard.

10. LIST OF PREPARES

Wouter Fourie, BA (Hon) Archaeology (UP)

Jaco van der Walt, BA (Hon) Archaeology (WITS)

11. REFERENCES

11.1 Archaeological Papers

Loubser, J. 1988. Venda History and the Ben Lavin Nature Reserve. Archaeological Site of the Transvaal. Prepared for the Southern African Association of Archaeologists Excursion, April 9-12 1988.

Huffman, T.N. 2002. Archeological Assessment for Gautrain Project.

Klein, R.G. 1984. Southern African Prehistory and Paleoenvironments. A.A. Balkema.

11.2 Cultural Heritage Papers:

Bergh, J.S. 1998. Geskiedenis Atlas van Suid-Afrika. Die vier Nooderlike Provinsies.

ANNEXURE A
LEGISLATION EXTRACTS

[36]36 Burial grounds and graves

(1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3) (a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the

contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3) (b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority-

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

(a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and

(b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as he or she approves in the Gazette.

(8) Subject to section 56 (2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-inter the remains of that person in a prominent place in the capital of the Republic.

[37]37 Public monuments and memorials

Public monuments and memorials must, without the need to publish a notice to this effect, be protected in the same manner as places which are entered in a heritage register referred to in section 30.

[38]38 Heritage resources management

(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

(c) any development or other activity which will change the character of a site-

(i) exceeding 5 000m² in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000m² in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

(2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)-

(a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person

or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or

(b) notify the person concerned that this section does not apply.

(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2) (a): Provided that the following must be included:

(a) The identification and mapping of all heritage resources in the area affected;

(b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6 (2) or prescribed under section 7;

(c) an assessment of the impact of the development on such heritage resources;

(d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;

(e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;

(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and

(g) plans for mitigation of any adverse effects during and after the completion of the proposed development.

(4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide-

- (a) whether or not the development may proceed;
- (b) any limitations or conditions to be applied to the development;
- (c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
- (d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
- (e) whether the appointment of specialists is required as a condition of approval of the proposal.

(5) A provincial heritage resources authority shall not make any decision under subsection (4) with respect to any development which impacts on a heritage resource protected at national level unless it has consulted SAHRA.

(6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who-

- (a) must consider the views of both parties; and
- (b) may at his or her discretion-
 - (i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and
 - (ii) consult SAHRA; and

(c) must uphold, amend or overturn such decision.

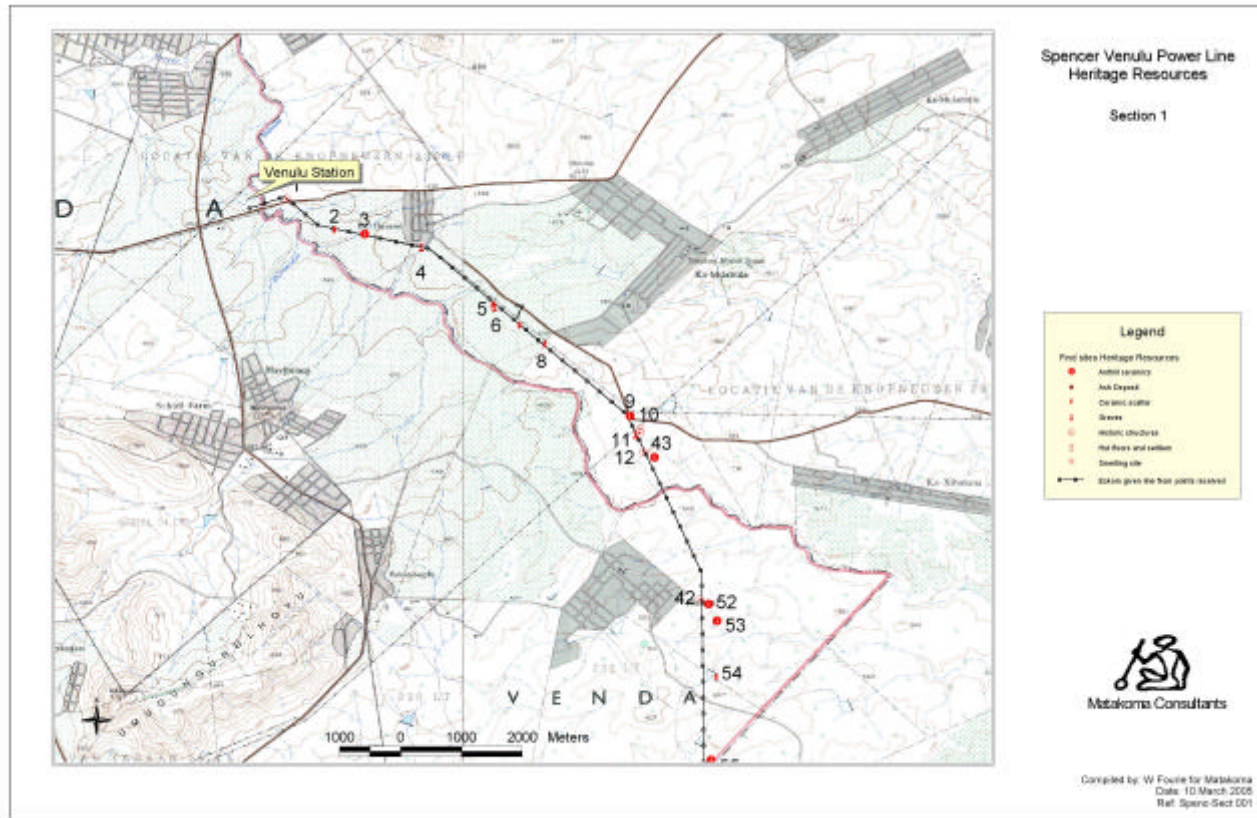
(7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.

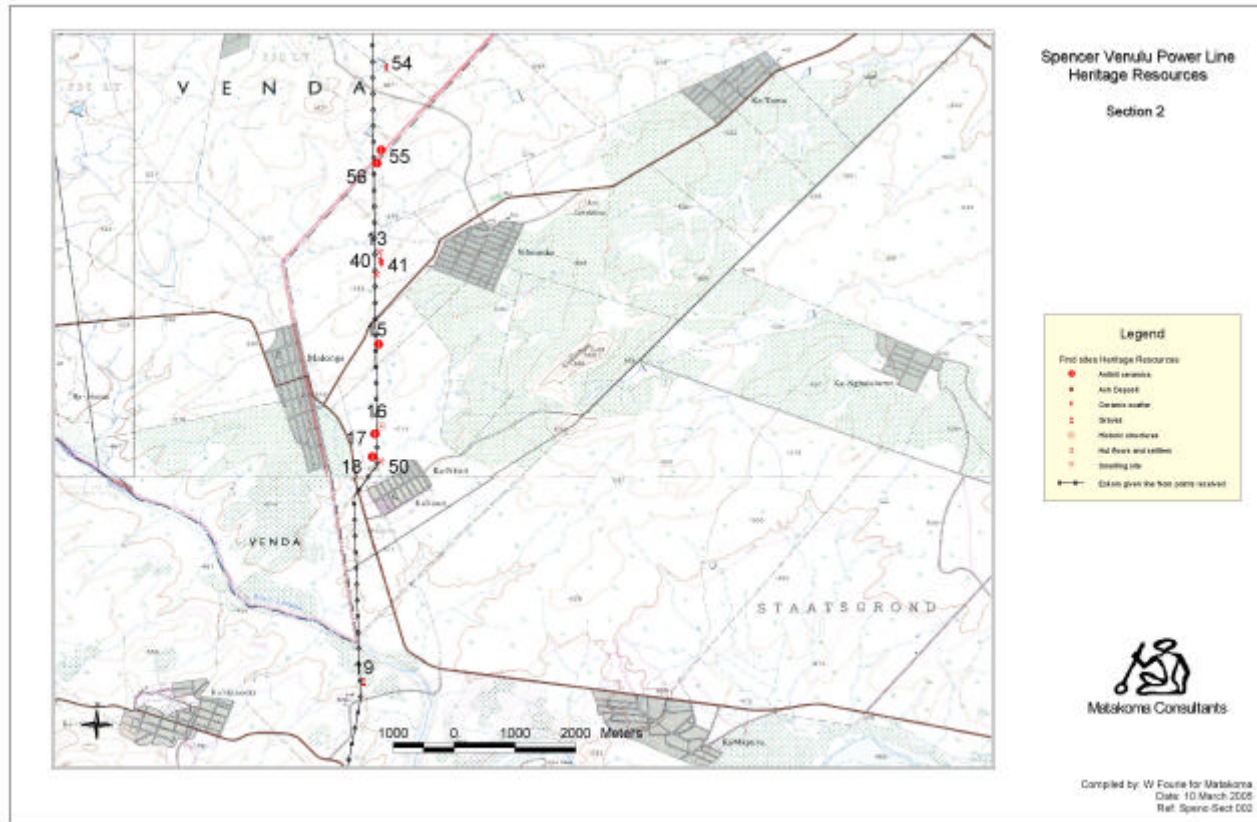
(8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.

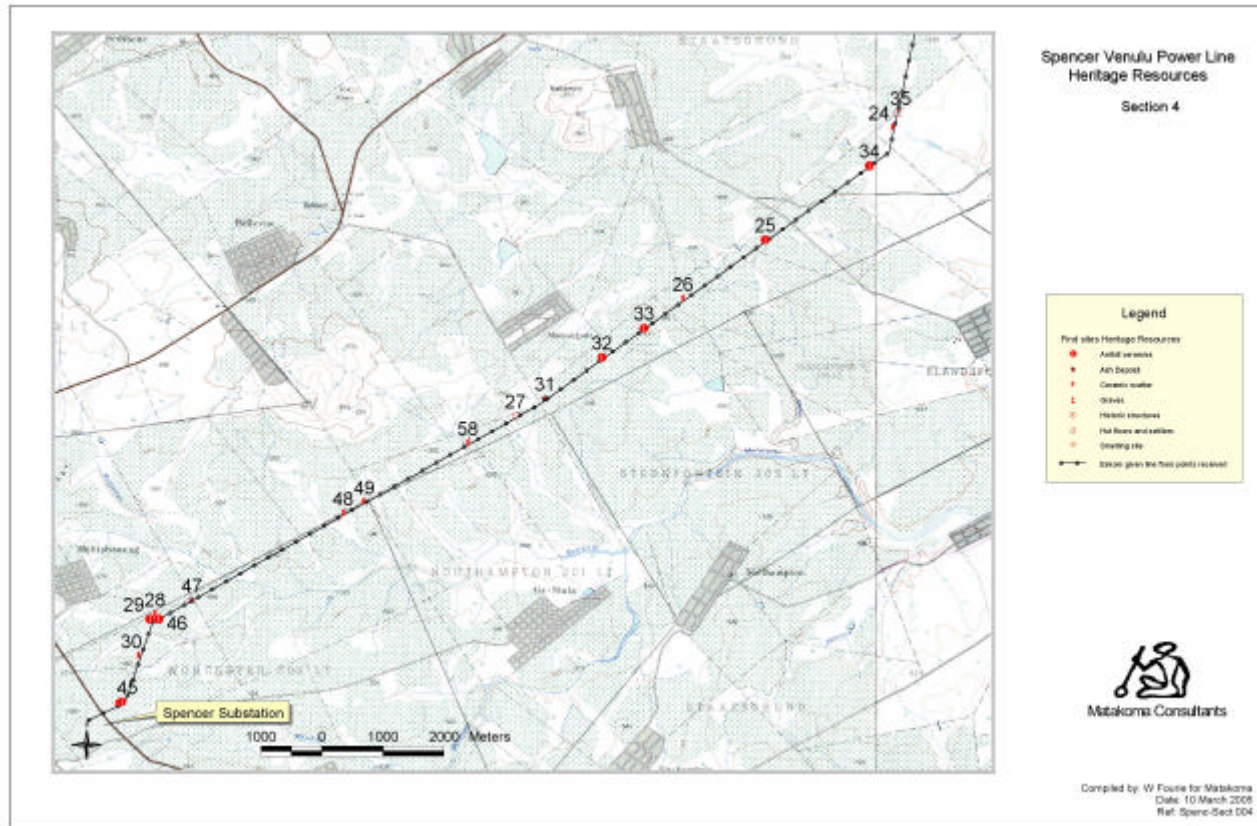
(9) The provincial heritage resources authority, with the approval of the MEC, may, by notice in the Provincial Gazette, exempt from the requirements of this section any place specified in the notice.

(10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply

ANNEXURE B
MAP OF SITES







ANNEXURE C

TABLE WITH SITE DESCRIPTION AND COORDINATES

SITE_NO	Official Grid Reference Number	Y		DESCRIPTION
3	2330AB-MHC003	-23.12463	30.48528	Anthill ceramics
9	2330BA-MHC005	-23.15162	30.52440	Anthill ceramics
15	2330BA-MHC011	-23.23119	30.53595	Anthill ceramics
17	2330BA-MHC013	-23.24441	30.53545	Anthill ceramics
18	2330BA-MHC014	-23.24778	30.53505	Anthill ceramics
21	2330BC-MHC006	-23.36723	30.50936	Anthill ceramics
25	2330AD-MHC002	-23.41789	30.48336	Anthill ceramics
29	2330AD-MHC014	-23.47358	30.39255	Anthill ceramics
32	2330AD-MHC005	-23.43522	30.45930	Anthill ceramics
33	2330AD-MHC004	-23.43086	30.46545	Anthill ceramics
34	2330AD-MHC001	-23.40708	30.49875	Anthill ceramics
38	2330BC-MHC005	-23.36084	30.51103	Anthill ceramics
43	2330BA-MHC017	-23.15776	30.52797	Anthill ceramics
45	2330AD-MHC016	-23.48571	30.38840	Anthill ceramics
46	2330AD-MHC012	-23.47356	30.39387	Anthill ceramics
52	2330BA-MHC019	-23.17951	30.53596	Anthill ceramics
53	2330BA-MHC020	-23.18201	30.53723	Anthill ceramics
55	2330BA-MHC022	-23.20263	30.53633	Anthill ceramics
56	2330BA-MHC024	-23.20455	30.53571	Anthill ceramics
SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
31	2330AD-MHC006	-23.44120	30.45082	Ash Deposit
37	2330BC-MHC007	-23.36598	30.51008	Ash Deposit
47	2330AD-MHC011	-23.47081	30.39877	Ash Deposit
SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
2	2330AB-MHC002	-23.12413	30.48083	Ceramic scatter
5	2330BA-MHC001	-23.13530	30.50410	Ceramic scatter
7	2330BA-MHC003	-23.13833	30.50807	Ceramic scatter
8	2330BA-MHC004	-23.14107	30.51183	Ceramic scatter
14	2330BA-MHC010	-23.21941	30.53644	Ceramic scatter
20	2330BC-MHC004	-23.35495	30.51294	Ceramic scatter
23	2330BC-MHC010	-23.37658	30.50741	Ceramic scatter
24	2330BC-MHC012	-23.40143	30.50216	Ceramic scatter
26	2330AD-MHC003	-23.42658	30.47119	Ceramic scatter
28	2330AD-MHC013	-23.47286	30.39331	Ceramic scatter
30	2330AD-MHC015	-23.47900	30.39084	Ceramic scatter
36	2330BC-MHC009	-23.37711	30.50745	Ceramic scatter
41	2330BA-MHC016	-23.21898	30.53617	Ceramic scatter
44	2330AD-MHC017	-23.48604	30.38767	Ceramic scatter
48	2330AD-MHC010	-23.45808	30.42113	Ceramic scatter
49	2330AD-MHC009	-23.45640	30.42408	Ceramic scatter
54	2330BA-MHC021	-23.19051	30.53711	Ceramic scatter
58	2330AD-MHC008	-23.44774	30.43948	Ceramic scatter

SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
4	2330AB-MHC004	-23.12665	30.49353	Graves
6	2330BA-MHC002	-23.13553	30.50440	Graves
12	2330BA-MHC008	-23.15442	30.52520	Graves
19	2330BC-MHC001	-23.28097	30.53378	Graves
57	2330BC-MHC003	-23.31442	30.52057	Graves
SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
1	2330AB-MHC001	-23.11945	30.47383	Historic structures
10	2330BA-MHC006	-23.15355	30.52592	Historic structures
11	2330BA-MHC007	-23.15418	30.52570	Historic structures
16	2330BA-MHC012	-23.24327	30.53637	Historic structures
22	2330BC-MHC008	-23.37576	30.50738	Historic structures
42	2330BA-MHC023	-23.17887	30.53474	Historic structures
51	2330BA-MHC025	-23.15693	30.52632	Historic structures
SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
27	2330AD-MHC007	-23.44377	30.44653	Hut floors and settlem
35	2330BC-MHC011	-23.39930	30.50288	Hut floors and settlem
39	2330BC-MHC002	-23.31468	30.52159	Hut floors and settlem
SITE_NO	Official Grid Reference Number	Y	X	DESCRIPTION
13	2330BA-MHC009	-23.21778	30.53605	Smelting site
40	2330BA-MHC015	-23.22106	30.53560	Smelting site
50	2330BA-MHC018	-23.24862	30.53624	Smelting site

ANNEXURE D

OUTLINE GUIDE FOR AN ARCHAEOLOGICAL WATCHING BRIEF

STANDARD AND GUIDANCE - for an Archaeological Watching Brief

1. DEFINITION OF AN ARCHAEOLOGICAL WATCHING BRIEF

The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposit may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition does not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains in situ.

2. PURPOSE OF A WATCHING BRIEF

The purpose of a watching brief is:

- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works
- To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.
- A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.
- The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.

- An archaeologist shall only undertake a watching brief, which is governed by a written and agreed specification or project design prepared in advance of work commencing.
- The specification or project design must identify the objectives, scope, geographical area, and means of dissemination of the results of the watching brief, and incorporate a method statement and work programme. The specification or project design should conform to the brief/project outline if one has been set, and must in any case be approved in advance by the planning archaeologist or curator.

The specification or project design should contain, as a minimum, the following elements:

- Non-technical summary
- Site location (including map) and descriptions
- Context of the project
- Geological and topographical background
- Archaeological and historical background
- General and specific aims of fieldwork
- Reference to relevant legislation
- Field methodology
- Collection and disposal strategy for artefacts and ecofacts
- Arrangement for immediate conservation of artefacts
- Post-fieldwork methodology
- Report preparation (method)
- Publication and dissemination proposals
- Copyright
- Archive deposition
- Timetable
- Staffing
- Health & safety considerations
- Monitoring procedures
- Contingency arrangements (if appropriate)

3. FIELDWORK

3.1 All relevant parties must agree to the specification and/or project design before work commences. All work must conform to the agreed specification or project design. All relevant parties must agree to any variations in writing.

3.2 Sufficient and appropriate resources (staff, equipment, accommodation etc) must be used to enable the project to achieve its aims, the desired quality and timetable, and comply with all statutory requirements. Any contingency elements must be clearly identified and justified. It is the role of the archaeologist undertaking the work to define appropriate staff levels.

3.3 All techniques used must comply with relevant legislation and be demonstrably fit for the defined purpose(s).

3.4 All staff, including subcontractors, must be suitably qualified and experienced for their project roles, and employed in line with relevant legislation and IFA by-laws (see Appendix 6). The site director and/or manager should preferably be a Principal Inspector with the Cultural Resources Management Section of the South African Association of Archaeologists (CRM Section of SA3).

3.5 All staff, including subcontractors, must be fully briefed and aware of the work required under the specification, and must understand the aims and methodologies of the project. All equipment must be suitable for the purpose and in sound condition and comply with Health and Safety regulations and recommendations.

3.6 Sufficient and appropriate resources (staff, equipment, accommodation etc) must be used to enable the project to achieve its aims, the desired quality and timetable, and to comply with all statutory requirements. Any contingency elements must be clearly identified and justified. It is the role of the archaeologist undertaking the work to define appropriate staff levels.

3.7 Full and proper records (written, graphic, electronic and photographic as appropriate) should be made for all work, using pro forma record forms and sheets as applicable. Digital records created, as part of the project

should comply with specified data standards. An archaeologist must ensure that digital information, paper and photographic records should be stored in a secure and appropriate environment, and be regularly copied or backed up, and copies stored in a separate location.

3.8 Artefact and environmental data collection and discard policies, strategies and techniques must be fit for the defined purpose, and understood by all staff and subcontractors

3.9 Health and Safety regulations and requirements cannot be ignored no matter how imperative the need to record archaeological information; hence Health and Safety will take priority over archaeological matters. All archaeologists undertaking fieldwork must do so under a defined Health and Safety Policy.

3.10 Archaeologists undertaking fieldwork must observe safe working practices; the Health and Safety arrangements must be agreed and understood by all relevant parties before work commences

3.11 Archaeologists must liaise closely with the principal contractor and comply with specified site rules. Archaeologists are advised to note the onerous responsibilities of the role of planning supervisor.

3.12 The archaeologist undertaking a watching brief must ensure that he or she has adequate insurance policies, public and employer's liability and some relevant form of civil liability indemnity or professional indemnity.

3.13 On arrival on site, the archaeologist should report to the site manager or other identified representative of the principal contractors or developers, and conform to their arrangements for notification of entering and leaving site.

3.14 Where the archaeologist has by instruction or agreement the power to suspend development work, he or she shall, in exercising such power, follow procedures previously agreed with the other contractors on the site. Within the constraints of the nature of the archaeological resource, the archaeologist shall not cause unreasonable disruption to the maintenance of the work schedules of other contractors.

3.15 An archaeologist should keep a record of the date, time and duration of all visits, the number of staff concerned and any actions taken.

4. POST-FIELDWORK ANALYSES AND REPORTS

4.1 Suitably qualified and experienced staff, who must be apprised of the project design before commencing work, and who should understand the work required of them, must carry out all assessment and analytical work.

4.2 The level of recording and analysis of artefacts and ecofacts should be appropriate to the aims and purpose of the project.

4.3 All data generated as a result of assessment and/or analysis should be included in the project archive.

4.4 All reports must address the aims and purposes of the project design and/or specification.

4.5 All reports should be written in a clear, concise and logical style; technical terms should be explained if the report is for a non-archaeological audience. Consideration should be given during the preparation of the report to the requirements of public inquiries and courts of law if appropriate.

4.6 Subject to any contractual requirements on confidentiality, copies of the report must be submitted to the appropriate Provincial Heritage Resources Agency (PHRA) within six months of completion of report.

4.7 As a minimum, a site summary or data structure report should be submitted to the appropriate PHRA.

5. MONITORING

5.1 All work must be monitored by the archaeological contractor undertaking the project, and if appropriate by the PHRA, the Cultural Resources Management Section of the South African Association of Archaeologists (CRM Section of SA3), or their nominated representatives. The guidance below is directed in general at monitors from outside the organisation undertaking the work, but many of the points apply equally to internal monitors or managers.

5.2 A monitor should be suitably experienced and qualified, or have access to appropriate specialist advice.

5.3 Monitoring must be undertaken against the written specification and/or project design.

5.4 Monitors, where not representing the commissioning body, should bear in mind the need for flexibility, within the stated parameters, in contractual matters such as staff numbers, budgets or timetable.

5.5 All monitoring visits must be documented, and agreed by each party.

5.6 Non-compliance with the agreed specification or project design must be pointed out by the monitor to the archaeologist undertaking the work, and their client if appropriate, at the earliest opportunity.

5.7 Monitors should be aware of their professional and moral duties regarding Health and Safety, in particular reporting and advising against bad and unsafe practice.

5.8 All monitoring arrangements must be agreed at the outset of the project; the archaeologist undertaking fieldwork must inform the planning archaeologist or other monitor of the commencement of work with reasonable notice.

5.9 Although monitors may choose to visit at any time, they should normally inform the archaeologist undertaking the work of any intended visits in advance. Monitors must respect reasonable requests from the client commissioning the work to attend only at prearranged times and, if necessary, in the company of the client's representative.

5.10 Any costs for monitoring to be charged by the planning archaeologist or other monitor must be agreed in writing at the outset of the project.

6. REPORT CONTENTS

The specific requirements of any report will necessarily vary according to the scope of works, the nature of the results or other factors. However, the following sections will occur in most

Non-technical summary

This should outline in plain, non-technical language the principal reason for the work, its objectives and main results. It should include reference to authorship and commissioning body.

Introductory statements

These could include acknowledgements, circumstances of the project such as planning background, the archaeological background, an outline nature of work, the site description (including size, geology and topography, location), when the project was undertaken and by whom.

Aims and objectives

These should reflect or reiterate the aims set out in the project design or specification.

Methodology

The methods used, including the detail of any variation to the agreed project design or specification should be set out carefully, and explained as appropriate. These should be set out as a series of summary statements, organised clearly in relation to the methods used, and describing structural data, associated finds and/or environmental data recovered. Descriptive material should be clearly separated from interpretative statements. Technical terminology (including dating or period references) should be explained where necessary if the report is aimed at a largely non-archaeological audience. The results should be amplified where necessary by the use of drawings and photographs; and by supporting data contained in appendices (below).

Conclusions

It is appropriate to include a section, which sums up and interprets the results and puts them into context (local, national or otherwise). Other elements should include a confidence rating on techniques used, or on limitations imposed by particular factors (eg weather or problems of access).

Archive location

The final destination of the archive (records and finds) should be noted in the report.

Appendices

These should contain essential technical and supporting detail, including for example lists of artefacts and contexts or details of measurements, gazetteers etc. It may also be appropriate to include the project design or specification for ease of reference.

Illustrations

Most reports will need the inclusion of one or more illustrations for clarity; as a minimum a location plan should be included. Any plans or sections should be clearly numbered and easily referenced to the National Grid and related to the specified area.

References and bibliography

A list of all sources used should be appended to the report.

Other

Contents list, disclaimers.

7. REFERENCES

The Institute of Field Archaeologists, 2001. STANDARD AND GUIDANCE - for an archaeological watching brief. United Kingdom