Phase 1 Archaeological Impact Assessment on portion 6 and the remainder of the farm Stony Ridge 281 JT in the Nelspruit area, Mbombela Municipality, Mpumalanga.

Compiled by

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22 June, 2008

Contents

1. Introduction

Kudzala Antiquity was commissioned to conduct an Archaeological Impact Assessment (AIA) on portion 6 and the remainder of Stony Ridge 281 JT in the Nelspruit area, Mbombela Municipality, Mpumalanga Province.

The study forms part of an Environmental Impact Assessment as required by legislation, the National Heritage Resources Act (Act 25, 1999). This act requires of individuals (engineers, farmers, mines and industry) or institutions to have impact assessment studies undertaken whenever any development activities are planned. This is to ensure that heritage features or sites that qualify as part of the National Estate are not damaged or destroyed.

Heritage resources considered to be part of the national estate include those that are of cultural significance or have other special value to the present community or future generations.

The national estate may include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds including:
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the *Gazette;*
  - (v) historical graves and cemeteries; and

  other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);

- sites of significance relating to slavery in South Africa;
- movable objects including:
  - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and

books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Van Vollenhoven (1995:3) describes cultural resources as all unique and non-renewable physical phenomena (of natural occurrence or made by humans) that can be associated with human (cultural) activities. These would be any man-made structure, tool, object of art or waste that was left behind on or beneath the soil surface by historic or pre-historic communities. These remains, when studied in their original context by archaeologists, are interpreted in an attempt to understand, identify and reconstruct the activities and lifestyles of past communities. When these items are disturbed from their original context, any meaningful information they possess is lost, therefore it is important to locate and identify such remains before construction or development activities commence.

An AIA consists of three phases, this document deals with the first phase. This (phase 1) investigation is aimed at getting an overview of cultural resources in a given area, thereby assessing the possible impact a proposed development may have on these resources. When the archaeologist encounters a situation where the planned project will lead to the destruction or alteration of an archaeological site, a second phase in the survey is normally recommended. During a phase two investigation, the impact assessment of

development activities on identified cultural resources is intensified and detailed investigation into the nature and origin of the cultural material is undertaken. Normally at this stage, archaeological excavation is carried out in order to document and preserve the cultural heritage.

Phase three consists of the compiling of a management plan for the safeguarding, conservation, interpretation and utilization of cultural resources (Van Vollenhoven, 2002).

Continuous communication between the developer and surveyor after the initial report has been compiled may result in the modification of a planned route or development to incorporate or protect existing archaeological sites.

2. Description of surveyed area

The study area falls within the Greater Ehlanzeni District Municipality within Mpumalanga Province. The survey was carried out on approximately 60 ha of land located on the farm Stony Ridge in the city of Nelspruit. The survey was conducted on foot and with the use of a motor vehicle in an effort to locate cultural remains.

3. Methodology

The methodological approach for this study should meet the requirements of relevant heritage legislation. A desktop study followed by a physical survey of the impacted areas was conducted. A detailed archival study was conducted in an effort to establish the age of the property and whether structures, graves or features of historical value exist on the property.

SAHRA recently (2005) issued the "*Minimum standards for archaeological and palaentological components of impact assessment reports"*. This is a draft document which suggests that the following components be included in a heritage impact assessment:

- Archaeology
- Shipwrecks
- Battlefields
- Graves
- Structures older than 60 years
- Living heritage
- Historical settlements
- Landscapes
- Geological sites
- Palaeontological sites and objects

All the above-mentioned heritage components are addressed in this report, except shipwrecks, geological sites and palaeontological sites and objects.

The purpose of the archaeological study is to establish the whereabouts and nature of cultural heritage sites should they occur on the surveyed area. This includes settlements, structures and artifacts which have value for an individual or group of people in terms of historical, archaeological, architectural and human (cultural) development.
It is the aim of this study to locate and identify such objects or places in order to assess whether they are of significance and warrant further investigation or protection. This study consisted of foot surveys, a desktop archival study as well as a study of the results of previous archaeological work in the area.

3.1. Desktop study

The purpose of the desktop study is to compile as much information as possible on the heritage resources of the area. This helps to provide an historical context for located sites. Sources used for this study included published and unpublished documents, archival material and maps. Material obtained from the following institutions or individuals were consulted:

- Lydenburg Museum, Lydenburg
- Published and unpublished archaeological reports and articles

3.2. Significance of sites

The South African Heritage Resources Agency (SAHRA) formulated guidelines for the conservation of all cultural resources and therefore also divided such sites into three main categories. These categories might be seen as guidelines that suggest the extent of protection a given site might receive. They include sites or features of local (Grade 3) provincial (Grade 2) and national (Grade 1) significance.

For practical purposes the surveyor uses his own classification for sites or features and divides them into three groups, those of low or no significance, those of medium significance, those of high significance.

Within the establishment of the significance of a site or feature there are certain values or dimensions connected to significance which may be allocated to a site. These include:

- **Types of significance**

The site's scientific, aesthetic and historic significance or a combination of these is established.

- **Degrees of significance**

The archaeological or historic site's rarity and representative value is considered. The condition of the site is also an important consideration.

- **Spheres of significance**

Sites are categorized as being significant in the international, national, provincial,

regional or local context. Significance of a site for a specific community is also taken into consideration.

It should be noted that to arrive at the specific allocation of significance of a site or feature, the specialist considers the following:

- Historic context
- Archaeological context or scientific value
- Social value
- Aesthetic value

More specific criteria used by the specialist in order to allocate value or significance to a site include:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Quality of the archaeological or historic material of the site
- Quantity of sites and site features

In short, archaeological and historic sites that contain data which may significantly enhance the knowledge that archaeologists currently have about our cultural heritage should be considered highly valuable. In all instances these sites should be preserved and not damaged during construction activities. When development activities do however jeopardize the future of such a site, a second and third phase in the Cultural Resource Management (CRM) process is normally advised which entails the excavation or rescue excavation of cultural material along with a management plan to be drafted for the preservation of the site or sites.

Graves are considered very sensitive sites and should never under any circumstances be

jeopardized by development activities. Graves are incorporated in the National Heritage Resources Act under section 36 and in all instances where graves are found by the surveyor, the recommendation would be to steer clear of these areas. If this is not possible or if construction activities have for some reason damaged graves, specialized consultants are normally contacted to aid in the process of exhumation and reinterment of the human remains. This implies that construction activities at the particular grave site will be brought to a halt temporarily.

4. History and archaeology

4.1. Historic background

Scientists are of the opinion that people roamed the Lowveld much longer ago than anticipated. A hominid of the Australopithecine species is believed to have been the first to stake a claim as first inhabitant. He was succeeded by more modern physical types such as Homo erectus, evidence of both these pre-historic predecessors of modern man, was discovered on the location at the Lowveld National Botanical Gardens in Nelspruit. This evidence is in the shape of formal stone tools belonging to the Early (Approx. 1,5 – 3 million AD) and Middle Stone Age (Approx. 200 000 – 30 000 AD) periods. (Milne in Bornman, 1979).

The first inhabitants of the eastern Lowveld were probably the San or Bushmen. They were a nomadic people who lived together in small family groups and relied on hunting and gathering of food for survival. Evidence of their existence is to be found in numerous rock shelters throughout the Lowveld where some of their rock paintings are still visible. A number of these shelters have been documented in the Nelspruit area (Bornman, 1995; Schoonraad in Barnard, 1975).
It has been argued that the red ochre source for these paintings is to be found at Dumaneni, near Malelane (Bornman, 1995).

It was only later that Bantu-speaking tribes moved into this area from the northern parts of Southern Africa and settled here. This period is referred to as the Early Iron Age (AD 200-1500 approx.). These were presumably Sotho-Tswana herder groups.
Various historians and ethnographers describe that the Lowveld was frequented by Swazi and Sotho-Tswana groups in historic times i.e. Late Iron Age times during the period AD 1500-1800. (Myburgh, 1949; Herbst, 1985; Bornman, 2002; Pienaar, 1990; Barnard, 1975).
Nelspruit, the capital of Mpumalanga, got its name from the three Nel brothers, Andries, Gert and Louis. They hunted in this area since the 1870's. In later years during the winter season, they brought their cattle from the Highveld to this area, where they always

camped at a rivulet south of the Crocodile River. This rivulet became known as Nelspruit. The first building was erected in 1884. Later when the railway line connecting the interior with Maputo was built, the Railway station erected here was named Nelspruit ca. 1892. The town was proclaimed in 1902 (Bornman in Barnard, 1975:119).

4.2. Archaeological history of the area

Some archaeological research was done during the 1970's at sites belonging to the EIA (Early Iron Age), location Plaston, a settlement close to White River (Evers, 1977). This site is located on a spur between the White River and a small tributary. It is situated on holding 119 at Plaston. The site was discovered during house building operations when a collection of pottery shards was excavated. The finds consisted of pottery shards both on the surface and excavated. Some of the pottery vessels were decorated with a red ochre wash. Two major decoration motifs occurred on the pots:

- Punctuation, using a single stylus and
- Broadline incision, the more common motif

A number of Early Iron Age pottery collections from Mpumalanga and Limpopo may be compared to the Plaston sample. They include Silver Leaves, Eiland, Matola, Klingbiel and the Lydenburg Heads site. The Plaston sample is distinguished from samples of these sites in terms of rim morphology, the majority of rims from Plaston are rounded and very few beveled. Rims from the other sites show more beveled rims (Evers, 1977:176).
Early Iron Age pottery was also excavated by archaeologist, Prof. Tom Huffman during 1997 on location where the Riverside Government complex is currently situated (Huffman, 1998). This site known as the Riverside site is situated a few kilometers north of Nelspruit next to the confluence of the Nelspruit and Crocodile River. It was discovered during the course of an environmental impact assessment for the new Mpumalanga Government complex offices. A bulldozer cutting exposed storage pits, cattle byres, a burial and midden on the crest of a gentle slope. Salvage excavations recovered conducted during December 1997 and March 1998 recovered the burial and contents of several pits.
One of the pits contained among other items, pottery dating to the eleventh century (AD

1070 ± 40 BP) this relates the pottery to the Mzonjani and Broederstroom phases. The early assemblage belongs to the Kwale branch of the Urewe tradition.

5. Located sites, their description and suggested mitigation

No significant archaeological sites and features were documented. A number of buildings and houses were documented but none of these are regarded as being of significance.

5.1. Site SRN 1.

Location: See Appendix B and C.

Description:

This is a number of farm worker's dwellings.

Impact of the proposed development/ activity:

The development will probably impact on this site.

Mitigation:

None recommended as these structures are not considered to be of cultural or heritage significance.

5.2. Site SRN 2.

Location: See Appendix B and C.

Description:

A small structure probably used for storage.

Impact of the proposed development/ activity:

The development will probably impact on this site.

Mitigation:

None recommended**.**

5.3. Site SRN 3

Location: See Appendix B and C.

Description:

This is a ruin. It was probably used as a dwelling or storage facility.

Impact of the proposed development/ activity:

The development will probably impact on this site.

Mitigation: None recommended**.**

5.4. Site SRN 4

Location: See Appendix B and C.

Description:

This is a dwelling

Impact of the proposed development/ activity:

The development will probably impact on this site.

Mitigation:

None recommended**.**

5.5. Site SRN 5

Location: See Appendix B and C.

Description:

This site is characterized by numerous dwellings and associated buildings. None of them are regarded as being significant.

Impact of the proposed development/ activity:

The development will probably not impact on the site.

Mitigation:

None recommended**.**

TABLE 5.1. General Significance of located sites.

Site No.	**Description**	**Type of significance**	**Degree of significance**	**Sphere of significance**
SRN 1	Workers dwellings	None	None	Farm dwellings
SRN 2	Rectangular structure	None	None	Farm dwellings
SRN 3	Ruin	None	None	Farm dwelling
SRN 4	House	None	None	Farm dwellings
SRN 5	Houses	None	None	Farm dwellings

TABLE 5.2. Significance allocation of located sites

Site no.	Unique nature	Integrity of archaeological deposit	Wider context	Relative location	Depth of deposit	Quality of archaeological/ historic material	Quantity of site features	Preservation condition of site
SRN 1	None	N/A	None	Limited knowledge	N/A	Archaeologically: low potential Historically: low quality	N/A	Good
SRN 2	None	N/A	None	Limited knowlegde	N/A	Archaeologically: low potential Historically: low quality	N/A	Poor
SRN 3	None	N/A	None	Limited knowledge	N/A	Archaeologically: low potential Historically: low quality	N/A	Poor
SRN 4	None	N/A	None	Limited knowledge	N/A	Archaeologically: low potential Historically: low quality	N/A	Good
SRN 5	None	N/A	None	Limited knowledge	N/A	Archaeologically: low potential Historically: low quality	N/A	Good

The bulk of archaeological remains are normally located beneath the soil surface. It is therefore possible that some significant cultural material or remains were not located during this survey and will only be revealed when the soil is disturbed.

Should excavation or large scale earth moving activities reveal any human skeletal remains, broken pieces of ceramic pottery, large quantities of sub-surface charcoal or any material that can be associated with previous occupation, a qualified archaeologist should be notified immediately. This will also temporarily halt such activities until an archaeologist have assessed the situation. It must also be noted that if such a situation occurs it may have further financial implications for the developers the developers.

6. Findings and recommendations

Mitigation measures were allocated to each site as discussed in section 5: Located sites and their description. None of the buildings documented are regarded as significant or worthy of protection. Recommendations regarding mitigation as set out in section 5 should be followed.

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Streektak, Sunnyside.

Appendix A

Terminology

"Alter" means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or other decoration or any other means.

"Archaeological" means –

- Material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artifacts, human and hominid remains and artificial features or structures;
- Rock Art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artifacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and
- Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found;

"Conservation", in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance;

"Cultural significance" means aesthetic, architectural, historical, scientific, social,

spiritual, linguistic or technological value or significance;

"Development" means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –

- construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- carrying out any works on or over or under a place;
- subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
- constructing or putting up for display signs or hoardings;
- any change to the natural or existing condition or topography of land; and
- any removal or destruction of trees, or removal of vegetation or topsoil;

"Expropriate" means the process as determined by the terms of and according to procedures described in the Expropriation Act, 1975 (Act No. 63 of 1975);

"Foreign cultural property", in relation to a reciprocating state, means any object that is specifically designated by that state as being of importance for archaeology, history, literature, art or science;

"Grave" means a place of internment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;

"Heritage resource" means any place or object of cultural significance;

"Heritage register" means a list of heritage resources in a province;

"Heritage resources authority" means the South African Heritage Resources Agency, established in terms of section 11, or, insofar as this Act (25 of 1999) is applicable in or in respect of a province, a provincial heritage resources authority (PHRA);

“Heritage site” means a place declared to be a national heritage site by SAHRA or a place declared to be a provincial heritage site by a provincial heritage resources authority;

“Improvement” , in relation to heritage resources, includes the repair, restoration and rehabilitation of a place protected in terms of this Act (25 of 1999);

“Land” includes land covered by water and the air space above the land;

“Living heritage” means the intangible aspects of inherited culture, and may include –

- cultural tradition;
- oral history;
- performance;
- ritual;
- popular memory;
- skills and techniques;
- indigenous knowledge systems; and
- the holistic approach to nature, society and social relationships;

“Management” in relation to heritage resources, includes the conservation, presentation and improvement of a place protected in terms of the Act;

“Object” means any moveable property of cultural significance which may be protected in terms of any provisions of the Act, including –

- any archaeological artifact;
- palaeontological and rare geological specimens;
- meteorites;
- other objects referred to in section 3 of the Act;

“Owner” includes the owner’s authorized agent and any person with a real interest in the property and –

- in the case of a place owned by the State or State-aided institutions, the Minister or any other person or body of persons responsible for the care, management or control of that place;
- in the case of tribal trust land, the recognized traditional authority;

"Place" includes –

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place;

"Site" means any area of land, including land covered by water, and including any structures or objects thereon;

"**Structure"** means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith;

Appendix B

9. List of located sites

The located sites were numbered SRN 1- 5. The initials “SRN” stands forStony Ridge, Nelspruit. A spatial location with the aid of a GPS (Global Positioning System) was added to each site.

9.1. Site name: SRN 1 (Site 1)

Date of compilation: 31/05/2008

GPS reading: Longitude, 30º 58, 745’ E

Latitude, 25º 24, 231’ S

Altitude: 836 m

Photo: Fig. 1.

9.2. Site name: SRN 2 (Site 2)

Date of compilation: 31/05/2008

GPS reading: Longitude, 30º 58, 619’ E

Latitude, 25º 24, 223’ S

Altitude: 850 m

Photo: Fig. 2.

9.3. Site name: SRN 3 (Site 3)

Date of compilation: 21/06/2008

GPS reading: Longitude, 30º 58, 756’ E

Latitude, 25º 23, 956’ S

Altitude: 832 m

Photo: Fig. 3.

9.4. Site name: MN 4 (Site 4)

Date of compilation: 21/06/2008

GPS reading: Longitude, 30º 57, 236’ E

Latitude, 25º 31, 105’ S

Altitude: 708 m

Photo: Fig. 4.

9.5. Site name: MN 5 (Site 5)

Date of compilation: 21/06/2008

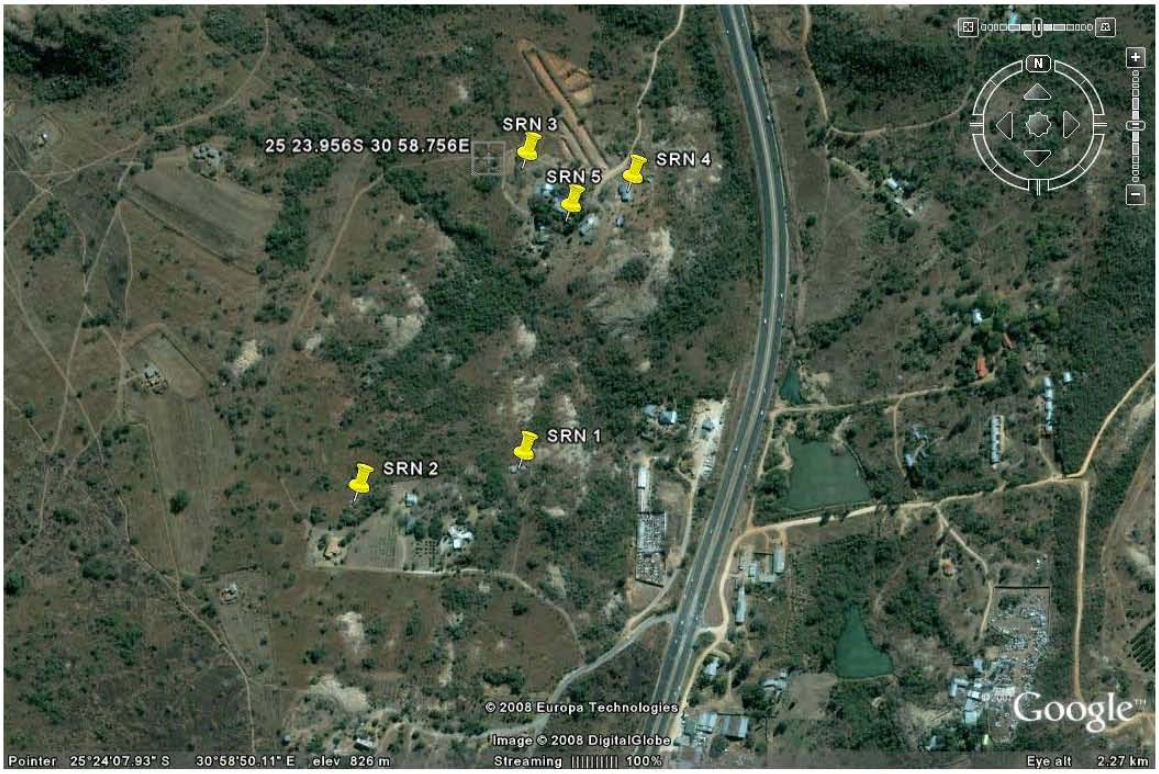
GPS reading: Longitude, 30º 58, 775’ E

Latitude, 25º 23, 965’ S

Altitude: 708 m

Photo: Fig. 5, 6.

Appendix C – Maps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SRN 3
SRN 4
SRN 5
SRN 1
SRN 2
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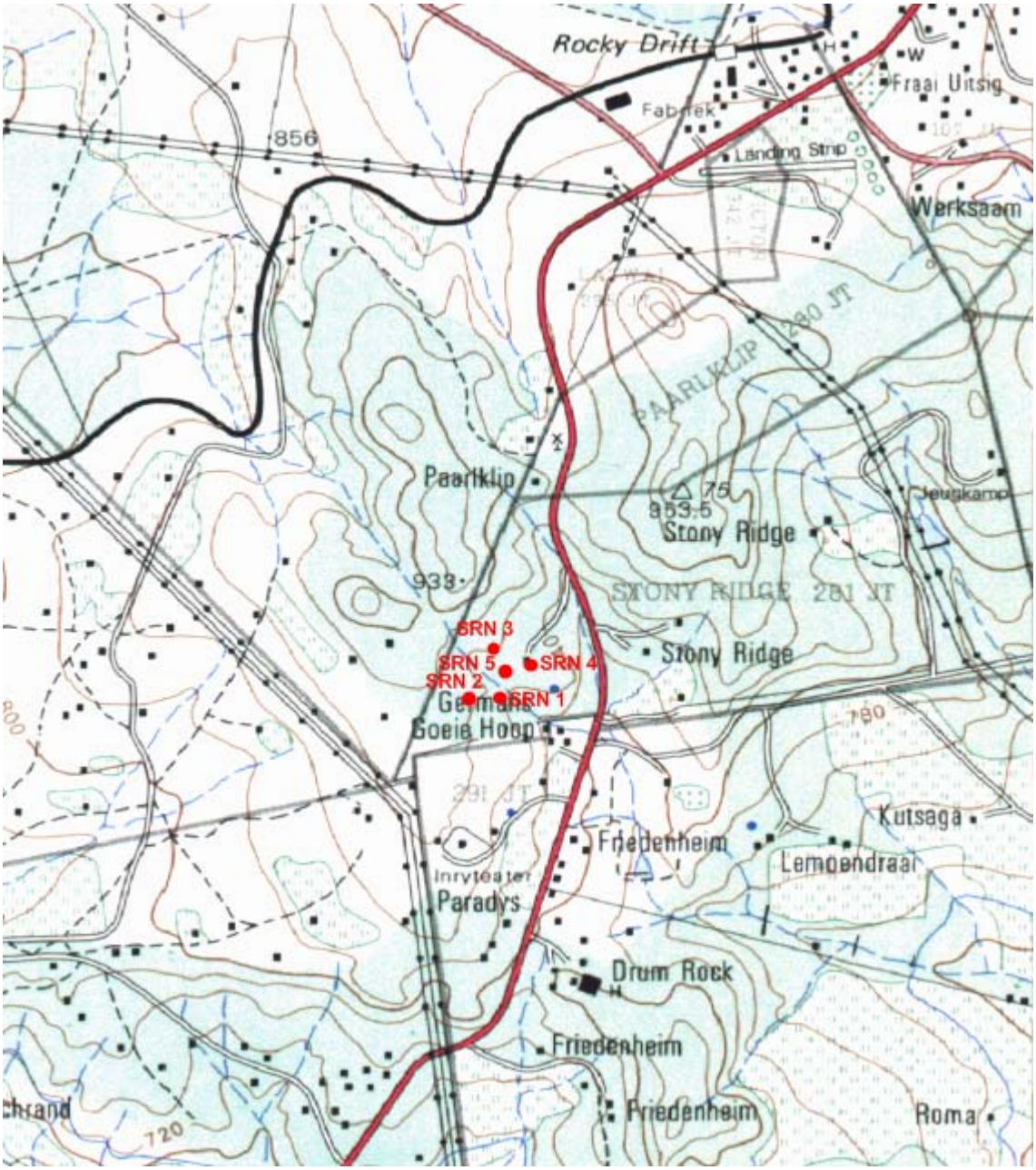
Rocky Drift
Fraai Uitsig
Fabriek
856
Landing Strip
Werksaam
PAARLKLIP 280 JT
Paarlklip
953.5
Stony Ridge
Jeugkamp
933
STONY RIDGE 281 JT
SRN 3
SRN 5
SRN 4
SRN 2
SRN 1
Stony Ridge
Goeie Hoop
780
800
291 JT
Kutsaga
Friedenheim
Lemoendraai
Inrytoeter
Paradys
Drum Rock
Friedenheim
Friedenheim
Roma
720

Map 2530 DB

Appendix D

Fig 1. Site SRN 1. Farm workers dwellings.

Fig 2. Site SRN 2. Small building. Not significant.

Fig. 3. Site SRN 3. Ruin.

Fig. 4. Site SRN 4. Farm dwelling. Not significant.

Fig. 5. Site SRN 5 . One of the houses. Not significant.

Fig. 6. Site SRN 5. A second structure at MN 5. Not significant.