



Heritage Assessment

HERITAGE UNIT

Rantendal Extension 10
Portion 77 (a Portion of Portion 28)
of the farm Paardeplaats 177-IQ,
Portion 373 of the farm
Paardeplaats 177-IQ and the
Remaining Extent of Portion 28 (a
Portion of Portion 1) of the farm
Paardeplaats 177-IQ
Mogale City, Gauteng

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Professional Grave
Solutions (Pty)
Limited

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(Registration No: 2003/008940/07)
Bergarend St 906, Waverley, Pretoria, 0186
PO Box 32542, Totiusdal, 0134 South Africa
TEL: +27 12 332 5305,
FAX: 0866 580199

ACKNOWLEDGEMENT OF RECEIPT

CLIENT: Futurescope, Town and Regional Planners

CONTACT PERSON: Mr Petrus Steyn, 011-955-5537 (t) / 086-612-8333 (f), email: petrussteyn@worldonline.co.za

SIGNATURE: _____

LEADING CONSULTANT: Professional Grave Solutions - Heritage Unit

CONTACT PERSON: Wouter Fourie

SIGNATURE: _____

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- ii. The technology described in any report ; and,
- iii. The recommendations delivered to the Client.

EXECUTIVE SUMMARY

Professional Grave Solutions Heritage Unit was appointed by Futurescope to undertake a Heritage Assessment that forms part of the Town Planning Application for the Rantendal Extension 10 development on Portion 77 (a Portion of Portion 28) of the farm Paardeplaats 177-IQ, Portion 373 of the farm Paardeplaats 177-IQ and the Remaining Extent of Portion 28 (a Portion of Portion 1) of the farm Paardeplaats 177-IQ .

During the survey thirty sites were found, of which most have some heritage significance due to the historical association with each other:

Prospecting Trenches and Shafts

Prospecting Trenches

21 prospecting trenches have been identified during the survey. These trenches vary between 50 cm to 1 metre in depth and 1 to 10 metres in length.

Shafts and addits

4 Shafts and 1 addit have been identified during the survey. The shafts vary between 5 to 20 metres in depth. The addit has been indicated by the current owners to be more than 50 metres in length.

The sites as a whole is seen as of medium heritage significance due to the overall concentration of historical remains on the property associated with prospecting and mining in the area.

It is recommended that the prospecting trenches and shafts to be directly impacted by the development be documented by surveying drawing and photography.

The history of the prospecting must then be memorialised by means of a layout and information plaque in the development.

Architectural Structures

The development site is characterised by numerous architectural structures in different stages of use:

AS1. Main Lodge and outbuildings

The current Lodge on the property is utilised as function and accommodation venue, and will be incorporated in to the new development. The original structures of the lodge were constructed between 1943 and 1954.

AS2. Old bird farm structures

Numerous dilapidated structures exist on the previous bird farm area (south-eastern section of the development)

The 1943 map indicate two structures older than 60 years on this section of the property. Due to the current squatter problem only one of the structures could be photographed. This structure is built with cement and rock and occupies an area to the west of the bird farm complex.

The other structure is the main house on the property and is currently occupied by squatters and could not be photographed or studied.

AS3. Presumed shepherds' structure

The structure is situated on the eastern boundary of the development and consists of a stone and mud built square structure consisting of two rooms and one outside wall on the northern side of the structure alongside the entrance.

The walls vary between 50 cm to 1.2 metres in height.

It was indicated that the structure was still utilised in the 1940's as a shepherds' hide. It is however possible that the structure is much older and associated with the gold mining activities.

AS4. Workers housing at Lodge

The original structures around the workers lodging was constructed between 1943 and 1954. The workers housing is indicated on the 1954 map.

These structures looked to have been constructed with rock and cement and upgraded to the current standard visible. The wooden window frames and chimney shape also indicate an age of pre 1950.

It is recommended that the architectural structures be assessed by a conservation architect to determine their architectural significance and then make recommendations on the way forward on them.

If these issues have been mitigated, there will be from a heritage point of view no reason why the development can not commence.

General

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

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1. INTRODUCTION

Professional Grave Solutions Heritage Unit was appointed by Futurescope to undertake a Heritage Assessment that forms part of the Town Planning Application for the Rantendal Extension 10 development on Portion 77 (a Portion of Portion 28) of the farm Paardeplaats 177-IQ, Portion 373 of the farm Paardeplaats 177-IQ and the Remaining Extent of Portion 28 (a Portion of Portion 1) of the farm Paardeplaats 177-IQ.

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

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

During the survey, thirty cultural heritage site were identified.

General site conditions and features on site were recorded by means of photos, GPS location, and description. Possible impacts were identified and mitigation measures are proposed in the HIA report.

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

2. APPROACH AND METHODOLOGY

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

2.1. PROJECT DESCRIPTION

The project entails the development of some 40 hectares of land situated just north of the Rantendal residential area in Krugersdorp, Mogale City. The site will consist of townhouses, single freehold erven and a section that will be utilised by the current Heritage Lodge on the property.

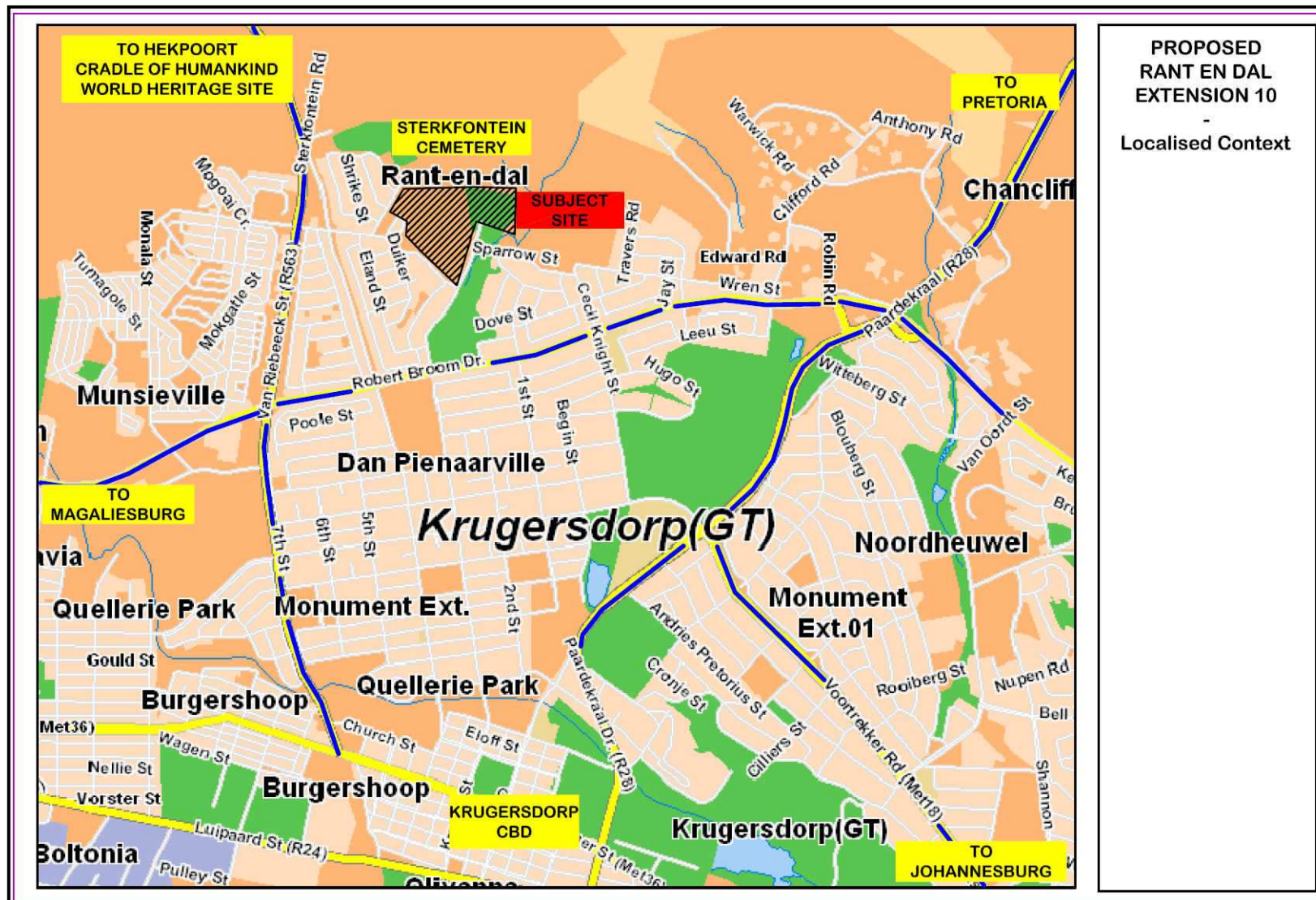


Figure 1 – Locality Map

2.2 PHYSICAL SURVEYING

Due to the nature of archaeological and cultural remains, the majority that occur below surface, a physical walk through of the study area was conducted. For the purpose of this study, a total area of approximately 40ha was surveyed over one day, by means of vehicle and extensive surveys on foot by PGS.

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

3. LEGISLATIVE REQUIREMENTS AND TERMINOLOGY

3.1 Legislation

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

- i. National Environmental Management Act (NEMA) Act 107 of 1998
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
- iv. Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

- i. National Environmental Management Act (NEMA) Act 107 of 1998
 - a. Basic Environmental Assessment (BEA) – Section (23)(2)(d)
 - b. Environmental Scoping Report (ESR) – Section (29)(1)(d)
 - c. Environmental Impacts Assessment (EIA) – Section (32)(2)(d)
 - d. Environmental Management Plan (EMP) – Section (34)(b)
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
 - a. Protection of Heritage resources – Sections 34 to 36; and
 - b. Heritage Resources Management – Section 38
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
 - a. Section 39(3)
- iv. Development Facilitation Act (DFA) Act 67 of 1995

- a. The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31.

3.2 Terminology

| Acronyms | Description |
|------------------|----------------------------------------------------------|
| AIA | Archaeological Impact Assessment |
| ASAPA | Association of South African Professional Archaeologists |
| CRM | Cultural Resource Management |
| DEAT | Department of Environmental Affairs and Tourism |
| DWAF | Department of Water Affairs and Forestry |
| EIA practitioner | Environmental Impact Assessment Practitioner |
| EIA | Environmental Impact Assessment |
| ESA | Early Stone Age |
| GPS | Global Positioning System |
| HIA | Heritage Impact Assessment |
| I&AP | Interested & Affected Party |
| LSA | Late Stone Age |
| LIA | Late Iron Age |
| MSA | Middle Stone Age |
| MIA | Middle Iron Age |
| NEMA | National Environmental Management Act |
| NHRA | National Heritage Resources Act |
| PHRA | Provincial Heritage Resources Agency |
| PSSA | Palaeontological Society of South Africa |
| ROD | Record of Decision |
| SADC | Southern African Development Community |
| SAHRA | South African Heritage Resources Agency |

Archaeological resources

This includes:

- i. 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 artefacts, human and hominid remains and artificial features and structures;
- ii. 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;

- iii. 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 in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- iv. features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

Cultural significance

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

Development

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

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

Heritage resources

This means any place or object of cultural significance

4. ASSESSMENT CRITERIA

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

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

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

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

A - No further action necessary;

B - Mapping of the site and controlled sampling required;

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

D - Preserve site

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

4.1 IMPACT

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

4.1.1 Nature and existing mitigation

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

4.2 EVALUATION

4.2.1 Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

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

4.2.2 Impact Rating

Each impact identified will be assessed in terms of probability (likelihood of occurring), extent (spatial scale), intensity (severity) and duration (temporal scale). To enable a scientific approach to the determination of the impact significance (importance), a numerical value will be linked to each rating scale. The sum of the numerical values will define the significance. The following criteria will be applied to the impact assessment.

Table 1: Probability

| Category | Rating | Description |
|-----------------|---------------|----------------------------------------------------------------------------------------------|
| Definite | 3 | More than 90 percent sure of a particular fact or of the likelihood of that impact occurring |
| Probable | 2 | 70 to 90 percent sure of a particular fact or of the likelihood of that impact occurring |
| Possible | 1 | 40 to 70 percent sure of a particular fact or of the likelihood of that impact occurring |
| Improbable | 0 | Less than 40 percent sure of a particular fact or of the likelihood of that impact occurring |

Table 2: Extent

| Category | Rating | Description |
|---------------|--------|------------------------------------|
| Site | 1 | Immediate project site |
| Local | 2 | Up to 5 km from the project site |
| Regional | 3 | 20 km radius from the project site |
| Provincial | 4 | Provincial |
| National | 5 | South African |
| International | 6 | Neighbouring countries/overseas |

Table 3: Duration

| Category | Rating | Description |
|-----------------|--------|-----------------------|
| Very short-term | 1 | Less than 1 year |
| Short-term | 2 | 1 to 5 years |
| Medium-term | 3 | 5 to 10 years |
| Long-term | 4 | 10 to 15 years |
| Very long-term | 5 | Greater than 15 years |
| Permanent | 6 | Permanent |

Table 4: Intensity

| Category | Rating | Description |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------|
| Very low | 0 | Where the impact affects the environment in such a way that natural, cultural and social functions are not affected |
| Low | 1 | Where the impact affects the environment in such a way that natural, cultural and social functions are only marginally affected |
| Medium | 2 | Where the affected environment is altered but natural, cultural and social function and processes continue albeit in a modified way |
| High | 3 | Where natural, cultural or social functions or processes are altered to the extent that they will temporarily cease |
| Very high | 4 | Where natural, cultural or social functions or processes are altered to the extent that they will permanently cease |

Table 5: Significance Rating

| Score | Significance Rating |
|--------------|----------------------------|
| 2 – 4 | Low |
| 5 – 7 | Low to Moderate |
| 8 – 10 | Moderate |
| 11 - 13 | Moderate to High |
| 14 – 16 | High |
| 17 – 19 | Very High |

5. HISTORICAL BACKGROUND OF AREA

5.1 ARCHAEOLOGICAL BACKGROUND

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

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

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

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

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the Pre-Historic and Historic periods. Similar to the Stone Age, it to can be divided into three 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 Witwatersrand Archaeological Resource Management (Wits ARM) database indicates no known archaeological sites in the area.

5.2 HISTORICAL BACKGROUND

5.1 Desktop Study Findings

5.1.1 Cartographic findings¹

As heritage impact assessments primarily deal with the locating of heritage resources within a pre-defined geographic landscape, the study of historic and archival maps as part of such a study can be very useful.

Two primary sources for maps were utilised, namely the the National Archives (Pretoria) and the archival section of the Directorate:Surveys & Mapping (Cape Town).

TAB, Map, 3/3488

The oldest map depicting the study area that could be found is a colour map (TAB, Maps, 3/3488) depicting the farm Honingklip. Although undated, it possibly dates to 1883, and definitely pre-dates 1898. According to Lindsay Frederick Braun (*Pers. Comm.*), who is a specialist on archival and historical maps, this map is the original farm survey map.

TAB, MAPS, S.2/120

Titled "*Plan van de Goudvelden en Aanliggende Plaatsen onder de jurisdictie van den Myncommissaris van Krugersdorp*" this map appears to date from either 1891 or 1892.

Again, although the absolute accuracy of the map is doubtful, a number of features of interest are depicted thereon. These include the farmstead and buildings, the agricultural fields, and importantly an area demarcated as "*Mijnpacht*". Macdonald (1933:150) defines the term as "*m(M)ining ground which the owner of the farm, or holder of the mineral rights, is entitled to select prior to the proclamation of the land by the Government.*" Cunningham (1987:131) defines the term as "*...an agreement whereby one tenth of the claims on an area proclaimed a goldfield was reserved for the use and profit of the owner of the land. This was to protect the owner from interference by diggers.*"

As can be seen from the map, the area demarcated as a "*Mijnpacht*" includes those sections of the study area on which evidence of mining and prospecting were found.

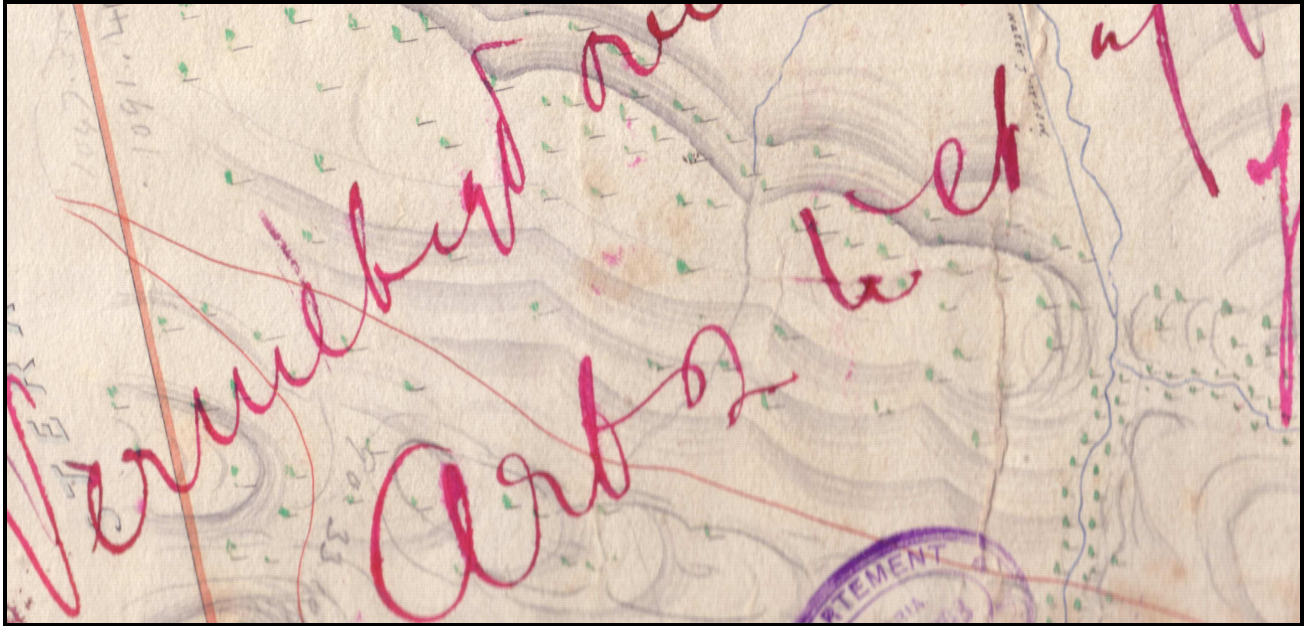


Figure 2 - The oldest located map and also the original survey map for Honingklip (possibly dated to 1883) (TAB, Map, 3/3488). Note the road to the north, farmstead



Figure 3 - Portion of map dating to 1891 or 1892. The area to the south of the bottom green line is the study area in question. Note the area demarcated as a "Mijnpacht" (TAB, Maps, S.2/120).

TAB, Maps, 3/1896

The map depicted here forms part of the Major Jackson Series. This specific sheet is named "Johannesburg-Heidelberg", while the sheet number is 13. It was compiled and drawn in the Surveyor-General's office in Pretoria, and is dated to June 1902 (the third revised edition of the particular sheet). The date of the map indicates that this revised edition was made just after the end of the Anglo Boer War, which lasted from October 1899 to May 1902.

Note as well the indication of a blockhouse or fortification further to the south of the present study area, named Fort Craig.

TAB, Maps, 3/1419

Dating to 1913, this map represents the Krugersdorp sheet of a 1:125 000 scale topographical map series. It was compiled by the Geographical Section, General Staff, Transvaal.

Of interest as well are the two names given for the farm, namely Honingklip and Honingkloof.



Figure 4 - Old map from the Anglo Boer War period. Note the blockhouse/fort indicated on the farm Paardeplaats in the figure's bottom left-hand corner.

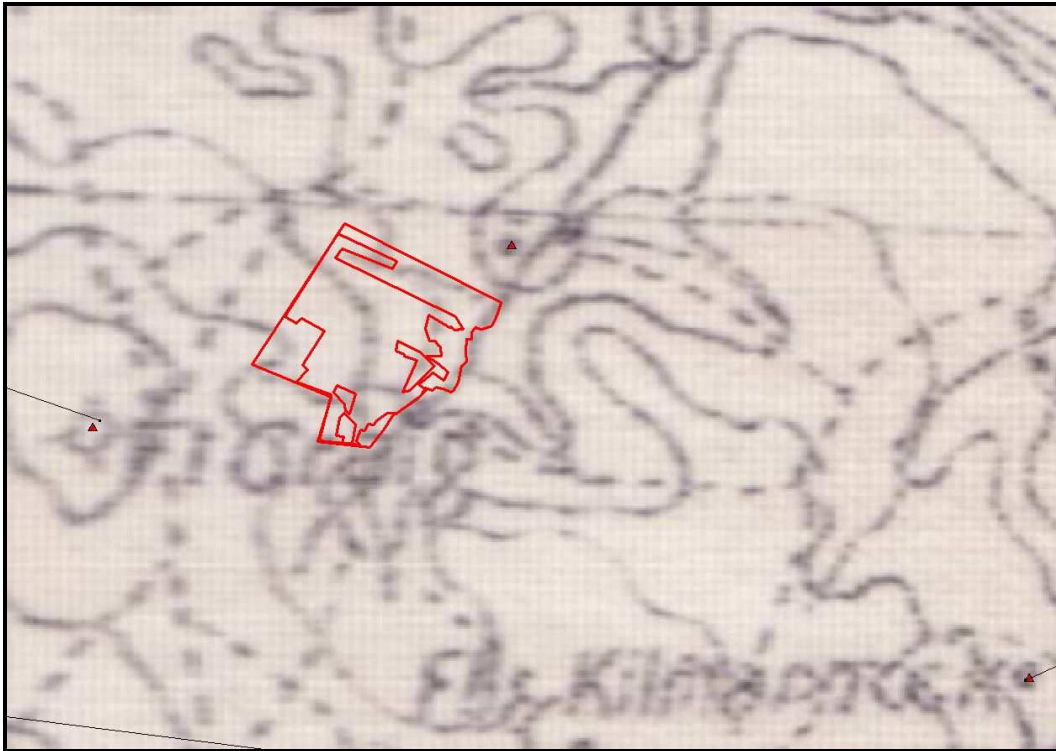


Figure 5 - Closer view of the Anglo Boer War map. Note the small triangles to the west and north of the study area indicate - West Fort Craig and North a possible block house

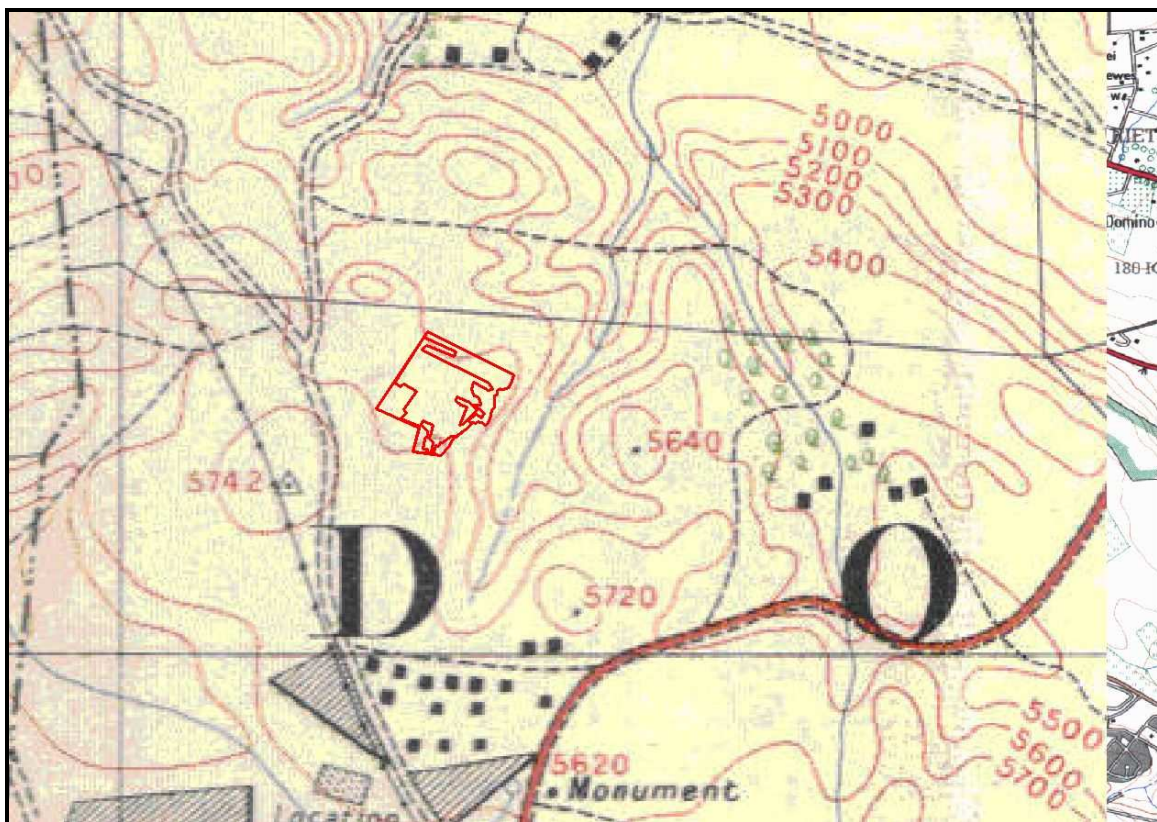


Figure 6 - Map (TAB, MAP, 3/1419) dating from 1913. Note no buildings area located in the study area

2627BB 1:50 000 Topographical Sheet, 1943

As can be seen from the title, this historical map dates to 1943. A number of significant features are shown on the map that includes two houses.

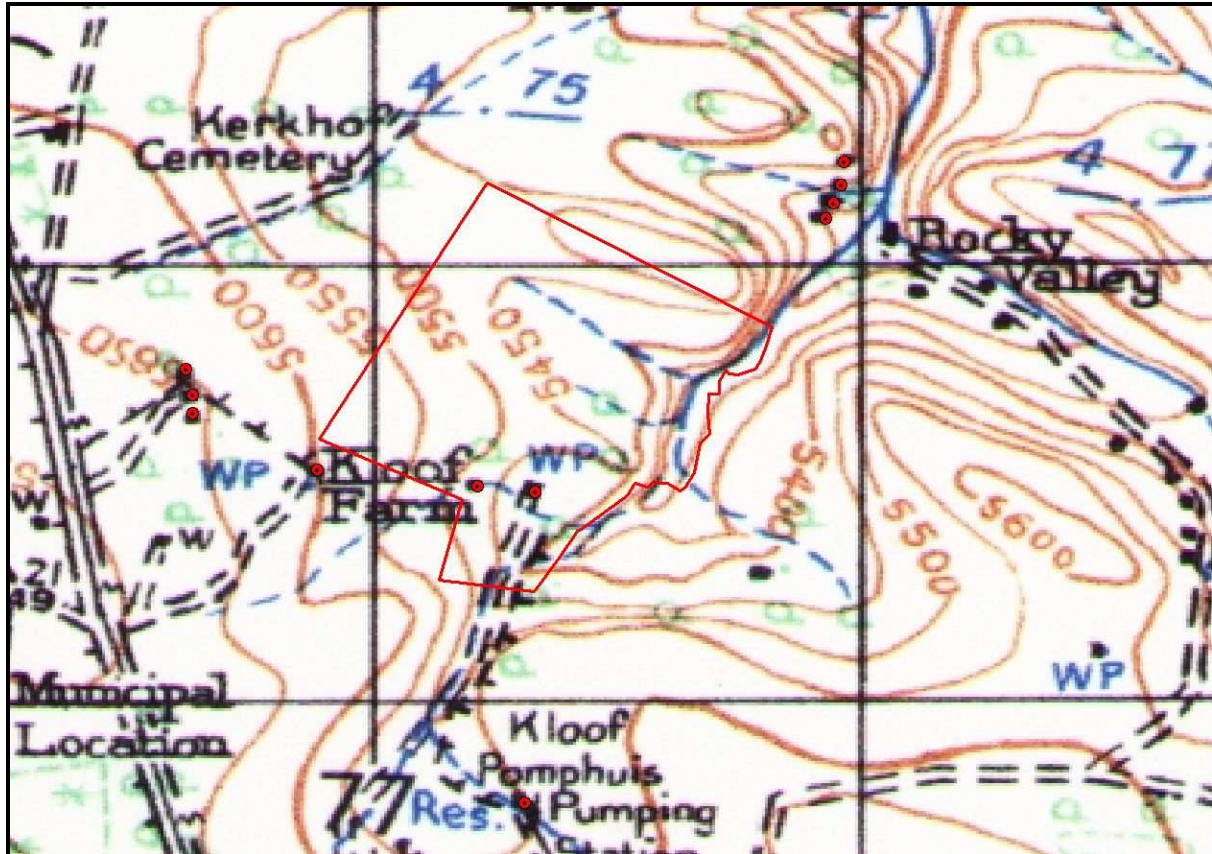


Figure 7 - Two views of a section of the 1943 2627BB sheet. Note the structures indicated with red dots older than 60 years in study area.

2627BB 1:50 000 Topographical Sheet, 1954

The 1954 1:50 000 topographical sheet was studied as well. Again two aspects can be highlighted on this map, namely the apparent rapid increase in houses in the area.



Figure 8 - Two views of the 1954 topographical sheet. Note the increase in structures on the study area.

5.1.2 Gold mining and prospecting on Honingklip

The farm Paardeplaats formed part of the history of gold mining and prospecting of early Johannesburg and surrounds. Although none of the main discoveries/activities (i.e. first discovery of Confidence Reef on the farm Wilgespruit or alternatively the discovery of the Main Reef on the farm Langlaagte) took place on Paardeplaats, it was certainly prospected and mined during the early years. The fact that the Struben brothers, and especially Fred Struben also worked here provides further value to this farm in terms of the development of gold mining and Johannesburg.

General overview of the history of gold mining and prospecting in the area

Using information summarised by Bergh (1999), a chronological timeline can be compiled of the history of gold discoveries on the farms in the area later called the Witwatersrand Gold Fields:

- 1834 Karl Kruger supposedly discovers gold in an unknown location on the Witwatersrand.

- 1852 J.H. Davis discovers gold on the farm **Paardeplaats/Groot Paardekraal**.
- 9 October 1853 P.J. Marais discovers alluvial gold on the farm **Zandfontein**.
- End of 1874 Henry Lewis discovers workable gold on **Blaauwbank**.

During this same period gold was also discovered on **Zuikerboschfontein** and **Koesterfontein**.
- 1876 Tobias Johannes Mare discovers gold on **Wilgespruit** and **Braamfontein**, but no further steps are taken.
- 1881 Discovery of gold on the farm **Kromdraai** by S.J. Minnaar. This discovery focussed attention back to the Krugersdorp after it had shifted to the region south of Heidelberg. On 8 December 1885 **Kromdraai** was also proclaimed as public diggings, becoming the first farm in the Witwatersrand to be officially proclaimed as a gold field. According to Erasmus (1944) Jan Bantjes subsequently did some work there. Preller (1935) also indicates that Bantjes discovered gold here in 1882 as well.
- 1882 Gold discovered on **Tweefontein**, adjacent to Kromdraai. By June 1885 a stamp battery was working on the farm.
- January 1884 Fred Struben discovers gold on **Sterkfontein**, which represented the first real discovery of gold in the Witwatersrand Group.
- April 1884 Fred Struben discovers banket formations for the first time on the farm **Paardeplaats/Groot Paardekraal**.
- September 1884 Fred Struben discovers Confidence Reef on the eastern side of the farm **Wilgespruit**.
- March 1885 Fred Struben discovers gold bearing conglomerate on **Honingklip**.
- 1886 Accidental discovery of Main Reef on **Langlaagte** by George Harrison.



Figure 9 - Pieter Marais, the discoverer of alluvial gold on the Jukskei River (www.joburg.co.za).

Activities on the farm Kromdraai

After the initial discovery of gold on Kromdraai, a syndicate was formed consisting of H.G. van der Hoven, R. Hollins, C.M. Douthwaite, S. Minnaar and Jan Bantjes. The rights on Kromdraai were eventually sold to Henry Nourse, who floated his own company known as the *Kromdraai Gold Mining Company*. Subsequently the company changed hands. During this time Minnaar's was working on Honingklip, while Bantjes and Douthwaite had earlier moved to other farms (Preller, 1935).

According to Taylor (n.d.) Harry Struben was working on a reef on the farm Kromdraai during the early part of 1886. He indicates that Fred Struben was also there, but that he was prospecting and sampling the surrounding area, and intended to test his samples at their Kromdraai battery.

The role of the Struben brothers in the discovery of gold

The Struben brothers, Harry and Fred, played a considerable role in the discovery of gold in the Witwatersrand area. Although both these brothers were involved, it was especially Fred Struben who undertook most of the prospecting activities that led to the various discoveries.

During December 1883 Fred Struben paid a visit to his brother, who was staying on the farm "The Willows" near Pretoria. It was here that he was to have a chance meeting with Lourens Geldenhuys, owner of the farm Wilgespruit situated approximately 56 kilometres south of Pretoria on the Witwatersrand.

Lourens Geldenhuys indicated to the Strubens that on a previous visit to Barberton he observed that the gold-bearing rocks in that vicinity seems similar to the ones on his farm. He was therefore interested to investigate the matter further.

Fred Struben, interested by what he heard, was invited to Wilgespruit, where he spent a few days. Struben and Lourens Geldenhuys investigated the wider area as well, riding on horseback from Wilgespruit, through Roodepoort to the Paardekraal Monument, and from there to Sterkfontein and back to Wilgespruit.

On his return to Pretoria, he exclaimed to his brother that "*...from a cursory look round he considered the Rand the finest formation he had seen in South Africa.*" (Luffman, n.d.:11).

During January 1884 Fred Struben returned to Sterkfontein, and on the second day of operations, discovered a gold bearing reef (Luffman, n.d.).

March 1884 saw the formation of a syndicate to obtain Sterkontein and commence working thereon (Preller, 1935). Luffman (n.d.) indicates that the syndicate's name was *Sterkfontein Junction Mining Syndicate*. The members of the syndicate were George Frederick Hudson, Henry William (Harry) Struben, Frederick Pine Theophilus (Fred) Struben and George Pigot Moodie. In the syndicate's "Articles of Association" its first objective is clearly indicated as the acquisition of farms believed to contain gold or other valuable mineral deposits. The properties earmarked in the document for this purpose are a Portion of the farm Sterkfontein No. 84 and the whole of the farm Swartkrans No. 83. The second stated objective is the undertaking of prospecting activities, while the third objective indicated in the document is the mining of any located minerals (Luffman, n.d.).

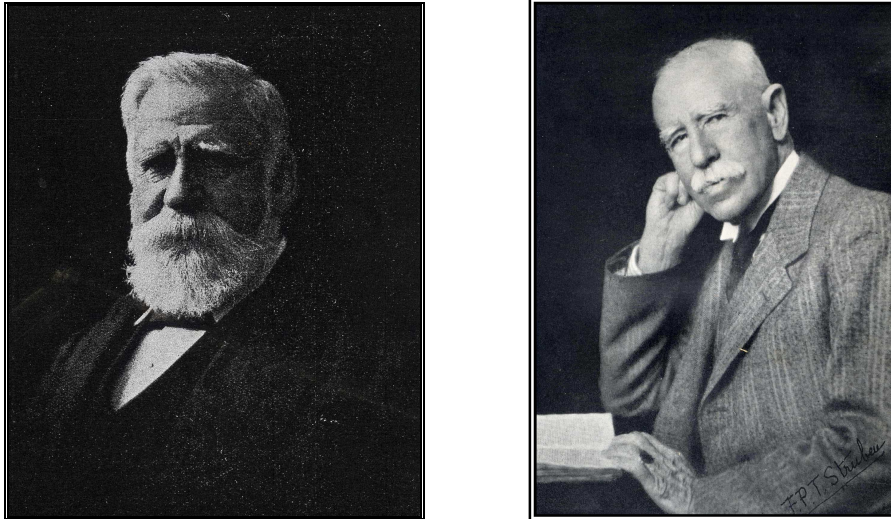


Figure 10 - Harry (left) and Fred Struben

The syndicate was immediately fortunate in that both properties earmarked in the formation document happened to be in the market and were soon acquired.

The farm Wilgespruit was also acquired from Louw Geldenhuys, half the mineral right of which was held in joint ownership by the Struben brothers (Luffman, n.d.).

With working continuing on Sterkfontein, the reef located here soon proved to be low yielding. However, during this period Fred Struben also investigated other farms along the line between Sterkfontein and Wilgespruit. By August 1884 he had concentrated his works on Wilgespruit. Although gold was discovered on the farm by August already, September saw Fred Struben discovering a rich vein of gold. He called this reef Confidence Reef (Luffman, n.d.).

Samples of Confidence Reef were taken to London for tests (Luffman, n.d.)

According to the book written by Harry Struben himself, titled *Recollections of Adventures: Pioneering and Development in South Africa 1850-1911* (Struben, 1920), he indicates that he had bought both Sterkfontein and Wilgespruit in 1884. Gold found in a shaft on Sterkfontein by Fred Struben was sent to the company *Johnson, Matthey & Co* in England for testing, the results of which proved favourable. He also indicates that after the discovery of Confidence Reef, Fred Struben had also discovered the Paardekraal conglomerates.

On 5 June 1885 the results of the Strubens brothers' activities and discoveries were presented by Harry Struben to the *Zuid Afrikaansche Republiek* President and Volksraad (Struben, 1920).

Chilvers (1932) provides the following timeline for Fred Struben's activities on the Rand:

- Early 1884 Operations on Sterkfontein
- March 1884 Formation of Sterkontein Junction Mining Syndicate
- From August 1884 Operations on Confidence Reef at Wilgespruit
- March 1885 Discovery of gold on Honingklip

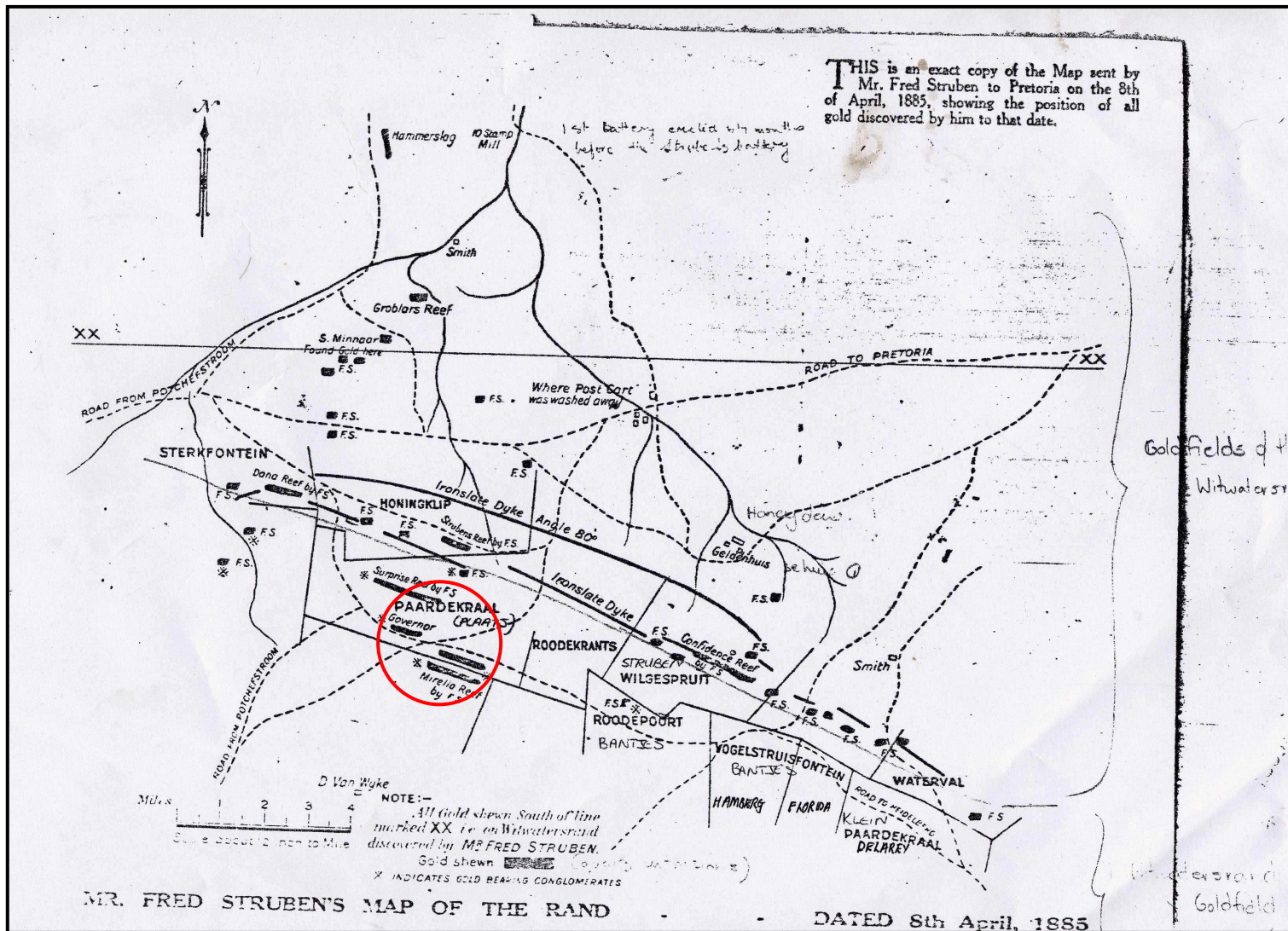


Figure 11 - Fred Struben's map dating from 1885. (Red circle indicate study area.)

Preller (1935) in turn provides a similar timeline for Fred Struben's activities, adding a few events:

- December 1883 Investigated formations on the Witwatersrand
- January 1884 Discovered gold on Sterkfontein
- March 1884 Syndicate formed to acquire and work on Sterkfontein
- September 1884 "Confidence Reef" is discovered
- March 1884 c Contract with Juta to prospect Honingklip
- March 1884 Struben's Reef, continuation of Confidence Reef on Honingklip.

Mining and prospecting activities on the farm Honingklip

During 1882 Stephanus Isaac Minnaar, one of the early prospectors on the Witwatersrand, discovered gold on Honingklip. This is the earliest reference to gold prospecting and mining found in terms of the farm in question (Cunningham, 1987). Macdonald (1933) mentions that Stephanus Minnaar was Hendrik Grobler's son-in-law.

Macdonald (1933) in turn indicates that Minnaar only started prospecting on Honingklip after Fred Struben's discovery on Wilgespruit (Confidence Reef was discovered on 18 September 1884), and before this time had been prospecting on a reef close to the Crocodile River where some gold were found.

Macdonald (1933) mentions that when Struben's attention was drawn to Honingklip during 1884, the farm had already been prospected by a Potchefstroom syndicate without success. Upon hearing of their failure, Struben contacted the syndicate and indicated that he was certain that he would be able to locate a new gold-bearing reef on Honingklip, in exchange for shares in the company for him and his brother. Although the company initially refused, they subsequently invited him to join them on his own terms

Charles Andries Celliers also acquired a five year lease in the form of "the full and sole right to dig and mine for gold" on Honingklip. The lease commenced on 11 May 1884 and its annual rental was £50. Seven months after the commencement of the lease, Celliers asked Fred Struben to prospect the farm (Cunningham, 1987).

During March 1885 Fred Struben opened a bed at Honingklip to a depth of ten feet. It is stated in one of his publications that "*this was the first work ever done on banket formation*"(Cunningham, 1987).

He subsequently discovered a continuation of Confidence Reef on Honingklip, which was named Struben's Reef. In a letter written from Honingklip and dated 18 March 1885, Fred Struben describes his discovery of the Confidence Reef on Honingklip to his sister-in-law (Macdonald, 1933).

Further in the same year Fred Struben identified another reef to the south on the farm Paardeplaats and called it Surprise Reef. This is in the area of the current proposed development area.

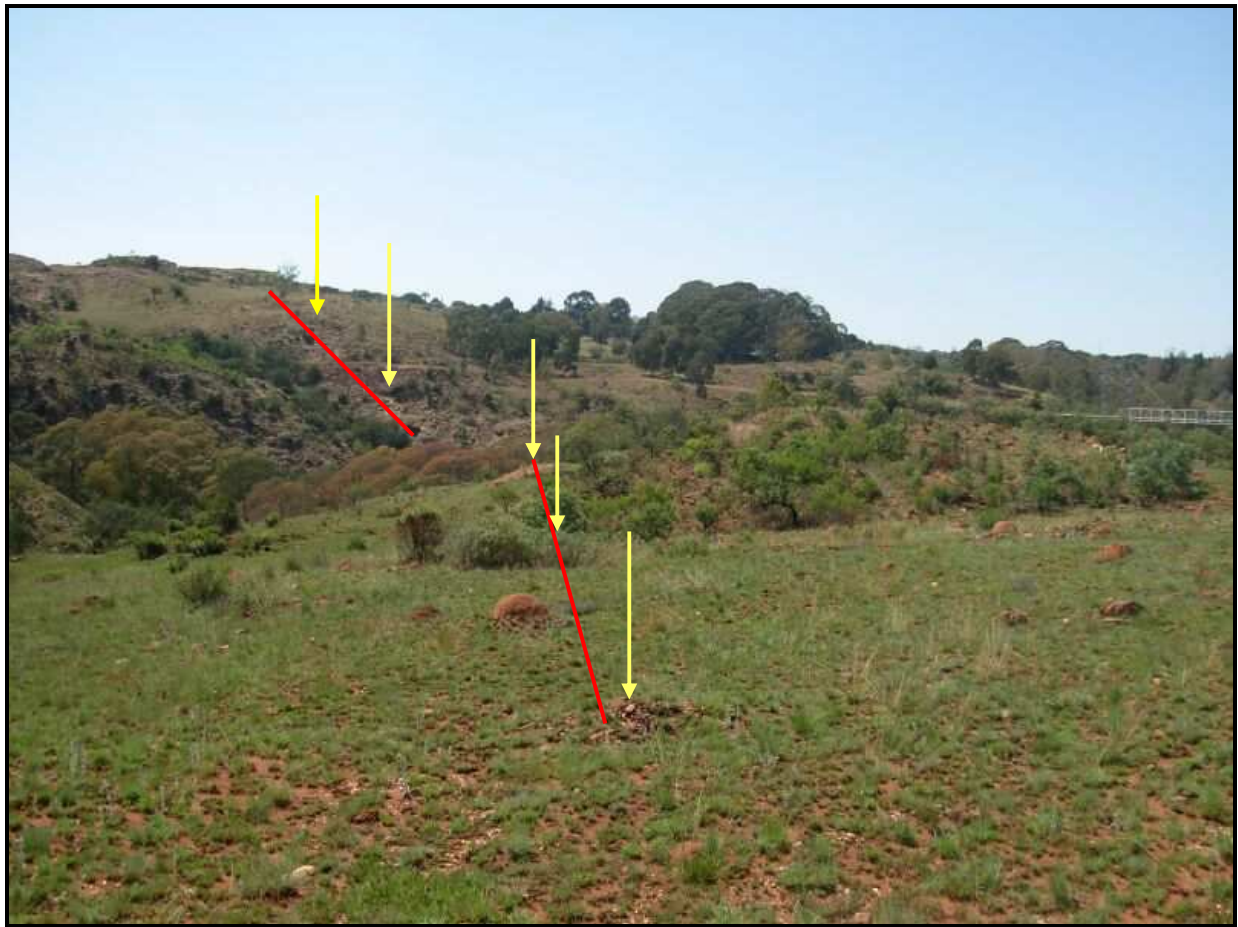


Figure 12 - View of Surprise reef on property (Red lines indicate reef alignment and yellow arrows shafts and prospecting trenches)

6. SITES OF SIGNIFICANCE

The study area is located on topographical sheet 2627BB. The proposed project site is approximately 40ha in size.



Figure 13 - General photo of study area

The following sites of archaeological and heritage significance were found in the area.

6.1 PROSPECTING TRENCHES AND SHAFTS


| | | |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Description of Site: | | |
| Site Number | | |
| Map reference | Topo-sheet number | Number of Map in report |
| | 2627BB | Annexure A |
| GPS coordinates: <i>Indicate Model and datum - WGS 84</i> | X | Y |
| Garmin 60Csx, WGS 84 | Refer to Table in Section 9 | |
| Site Data | Description | |
| Type of site (e.g. open scatter; shell midden, cave /shelter); | <p>Prospecting Trenches – 21 prospecting trenches has been identified during the survey. These trenches vary between 50 cm to 1 metre in depth and 1 to 10 metres in length.</p> <p>Shafts and addits – 4 Shafts and 1 addit have been identified during the survey. The shafts vary between 5 to 20 metres in depth. The addit has been indicated by the current owners to be more than 50 metres in length.</p> | |
| Site categories (e.g. Earlier Stone Age, Late Iron Age); | Recent Historic | |
| Context (i.e. primary or secondary); | Primary | |
| <i>Cultural affinities, approximate age and significant features of the site;</i> | None | |
| Photographs and diagrams (Figure numbers) |  | |
| | <p style="text-align: center;"><i>Figure 14 - Photo of prospecting trench</i></p> | |



Figure 15 - Glass bottle neck found at one of the shafts. Bottle neck finish indicating manufacturing date of around 1885 to 1900.



Figure 16- Entrance to addit on Koedoe Street



Figure 17 - Terracing close to addit on Koedoe street



Figure 18 - Shaft close to structure 1, in north of development area

| | |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Statement of Significance (<i>Heritage Value</i>)</p> | <p>The sites as a whole is seen as of medium heritage significance due to the overall concentration of historical remains on the property associated with prospecting and mining in the area.</p> |
| <p>Field Rating (<i>Recommended grading or field significance</i>) of the site:</p> | <p>Generally protected (GP.A)</p> |

| | | | | | |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|-----------------|------------------|
| Impact Evaluation of development on site | Impact on site is seen as high negative, through possible destruction of site during the development construction activities. | | | | |
| Recommendations including: | It is recommended that the prospecting trenches and shafts to be directly impacted by the development be documented by surveying drawing and photography. The history of the prospecting must then be memorialised by means of a layout and information plaque in the development. | | | | |
| Summary | | | | | |
| Significance Rating | Field Rating | Probability | Extent | Duration | Intensity |
| 14 (High) | GP.A | 3 | 1 | 6 | 4 |

6.2 ARCHITECTURAL STRUCTURES

| | | |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Description of Site: | | |
| Site Number | | |
| Map reference | Topo-sheet number | Number of Map in report |
| | 2627BB | Annexure A |
| GPS coordinates: Indicate Model and datum - WGS 84 | X | Y |
| Garmin 60Csx, WGS 84 | Refer to Table in Section 9 | |
| Site Data | Description | |
| Type of site (e.g. open scatter; shell midden, cave /shelter); | <p>The development site is characterised by numerous architectural structures in different stages of use:</p> <p>AS1. Main Lodge and outbuildings – The current Lodge on the property is utilised as function and accommodation venue, and will be incorporated in to the new development. The original structures of the lodge was constructed between 1943 and 1954.</p> <p>AS2. Old bird farm structures – Numerous dilapidated structures exist on the previous bird farm area (south-eastern section of the development)</p> <p>The 1943 map indicate two structures older than 60 years on this section of the property. Due to the current squatter problem only on of the structures could be photographed. This structure is build with cement and rock and occupies an area to the west of the bird farm complex.</p> <p>The other structure is the main house on the property and is currently occupied by squatters and could not be photographed or studied.</p> | |


| | |
|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>AS3. Presumed shepherds’ structure – The structure is situated on the eastern boundary of the development and consists of a stone and mud build square structure consisting of two rooms and one outside wall on the northern side of the structure alongside the entrance.</p> <p>The walls vary between 50 cm to 1.2 metres in height.</p> <p>It was indicated that the structure was still utilised in the 1940’s as a shepherds’ hide. It is however possible that the structure is much older and associated with the gold mining activities.</p> <p>AS4. Workers housing at Lodge –</p> <p>The original structures around the workers lodging was constructed between 1943 and 1954. The workers housing is indicated on the 1954 map.</p> <p>These structures looked to have been constructed with rock and cement and upgraded to the current standard visible. The wooden window frames and chimney shape also indicate an age of pre 1950.</p> |
| <p>Site categories (e.g. Earlier Stone Age, Late Iron Age);</p> | <p>Historic</p> |
| <p>Context (i.e. primary or secondary);</p> | <p>Primary</p> |
| <p><i>Cultural affinities, approximate age and significant features of the site;</i></p> | <p>None</p> |
| <p>Photographs and diagrams (Figure numbers)</p> |  <p><i>Figure 19: Stone building on bird farm area</i></p> |



Figure 20 - Stone built structure



Figure 21 - Close up detail of structure



Figure 22: Photo of similar structure in the Klipriviersberg Nature Reserve (Johannesburg.gov.za)



Figure 23 - Workers housing at lodge



Figure 24 – Single structure as part of workers housing

| | | | | | |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|-----------------|------------------|
| Statement of Significance (<i>Heritage Value</i>) | The sites are grade provisionally as having medium heritage significance, pending the conservation architects' evaluation | | | | |
| Field Rating (<i>Recommended grading or field significance</i>) of the site: | Generally protected (GP.B) | | | | |
| Impact Evaluation of development on site | Impact on site is seen as high negative, through possible destruction of site during mining activities. | | | | |
| Recommendations including: | It is recommended that the architectural structures be assessed by a conservation architect to determine their architectural significance and then make recommendations on the way forward on them. | | | | |
| Summary | | | | | |
| Significance Rating | Field Rating | Probability | Extent | Duration | Intensity |
| 14 | GP.B | 3 | 1 | 6 | 4 |

7. ASSUMPTIONS AND LIMITATIONS

Not subtracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork do not necessarily represent all the heritage resources located there. This may be due to various reasons, including the subterranean nature of some archaeological sites and

dense vegetation cover. As such, should any archaeological or heritage features and/or objects not included in the present inventory be located or observed, a qualified archaeologist or heritage specialist must immediately be contacted. Such observed or located archaeological and heritage features and/or objects may not be disturbed or removed in any way until such time that the archaeologist or heritage specialist has been able to make an assessment as to the significance of the site (or material) in question. This is true for graves and cemeteries as well.

8. LEGAL AND POLICY REQUIREMENTS

8.1 General principles

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 an archaeological or heritage resource is discovered.

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

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

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

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

8.1 Graves and cemeteries

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

Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

9. ASSESSMENT AND RECOMMENDATIONS

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

During the survey thirty sites were found, of which most have some heritage significance due to the historical association with each other:

Prospecting Trenches and Shafts

Prospecting Trenches

21 prospecting trenches have been identified during the survey. These trenches vary between 50 cm to 1 metre in depth and 1 to 10 metres in length.

Shafts and addits

4 Shafts and 1 addit have been identified during the survey. The shafts vary between 5 to 20 metres in depth. The addit has been indicated by the current owners to be more than 50 metres in length.

The sites as a whole is seen as of medium heritage significance due to the overall concentration of historical remains on the property associated with prospecting and mining in the area.

It is recommended that the prospecting trenches and shafts to be directly impacted by the development be documented by surveying drawing and photography.

The history of the prospecting must then be memorialised by means of a layout and information plaque in the development.

Architectural Structures

The development site is characterised by numerous architectural structures in different stages of use:

AS1. Main Lodge and outbuildings

The current Lodge on the property is utilised as function and accommodation venue, and will be incorporated in to the new development. The original structures of the lodge were constructed between 1943 and 1954.

AS2. Old bird farm structures

Numerous dilapidated structures exist on the previous bird farm area (south-eastern section of the development)

The 1943 map indicate two structures older than 60 years on this section of the property. Due to the current squatter problem only one of the structures could be photographed. This structure is built with cement and rock and occupies an area to the west of the bird farm complex.

The other structure is the main house on the property and is currently occupied by squatters and could not be photographed or studied.

AS3. Presumed shepherds' structure

The structure is situated on the eastern boundary of the development and consists of a stone and mud built square structure consisting of two rooms and one outside wall on the northern side of the structure alongside the entrance.

The walls vary between 50 cm to 1.2 metres in height.

It was indicated that the structure was still utilised in the 1940's as a shepherds' hide. It is however possible that the structure is much older and associated with the gold mining activities.

AS4. Workers housing at Lodge

The original structures around the workers lodging was constructed between 1943 and 1954. The workers housing is indicated on the 1954 map.

These structures looked to have been constructed with rock and cement and upgraded to the current standard visible. The wooden window frames and chimney shape also indicate an age of pre 1950.

It is recommended that the architectural structures be assessed by a conservation architect to determine their architectural significance and then make recommendations on the way forward on them.

If this issue has been mitigated, there will be from an heritage point of view no reason why the development can not commence.

General

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

10. LIST OF PREPARES

Wouter Fourie, BA (Hon) Archaeology (UP)

Polke D brikholtz, BA (Hon) Archaeology (UP)

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ANNEXURE A: Heritage Sites

Rantendal Extnsion 10 Heritage Sites

Legend

-  Rantendalx 10 boundary
- Heritage Sites**
-  Prospect
-  Shaft
-  Structure
-  Structure - Cave?

