



PGS HERITAGE

MEYER AND DU TOIT FARMSTEADS

Phase 2 – Heritage Impact Assessment Report

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Declaration of Independence

I, Polke Birkholtz, declare that –

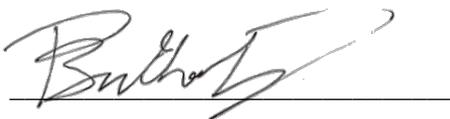
- I act as the independent heritage practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting heritage impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in section 38 of the NHRA when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- All the particulars furnished by me in this form are true and correct;
- I will perform all other obligations as expected from a heritage practitioner in terms of the Act and the constitutions of my affiliated professional bodies; and
- I realise that a false declaration is an offence in terms of regulation 71 of the Regulations and is punishable in terms of section 24F of the NEMA.

Disclosure of Vested Interest

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;

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SIGNATURE:



EXECUTIVE SUMMARY

Introduction

PGS Heritage (Pty) Ltd was appointed by Glencore (Pty) Ltd to undertake the Phase 2 mitigation work for the purposes of obtaining destruction permits for two old farmsteads that will be affected by coal mining activities near Emalahleni, Emalahleni Local Municipality, Nkangala District Municipality, Mpumalanga Province.

The two farmsteads in question are as follows:

- Du Toit Farmstead, located on Portion 7 of the farm Steenkoolspruit 18-IS; and
- Meyer Farmstead, located on Portion 6 of the farm Steenkoolspruit 18-IS.

Associated Reports and Processes

The following reports and studies preceded the current report:

- In 2009, the Meyer farmstead was included in a Heritage Impact Assessment for the Proposed DMO Mining Venture undertaken by Cultmatrix (2009);
- In 2012, PGS Heritage & Grave Relocation Consultants were appointed to undertake a Heritage Assessment of the Du Toit farmstead. This report was undertaken by Polke Birkholtz (Heritage Specialist/Archaeologist) and Mauritz Naudé (Architectural Historian);
- In 2012, the Meyer farmstead was included in a Heritage Impact Assessment for the Proposed Atcom East Expansion of the Impunzi Colliery undertaken by PGS Heritage & Grave Relocation Consultants;
- In 2013, Mauritz Naudé compiled a Heritage Assessment (Architectural Historical) of the Meyer farmstead;
- In 2013, both the Du Toit and Meyer farmsteads are mentioned in a Heritage Statement for the Atcom and Tweefontein Dragline Relocation Project undertaken by Digby Wells Environmental (2013);
- In 2014, Mauritz Naudé compiled a recording report of the Meyer Farmstead. This report presented both the photographic recording of the farmstead, as well as the layout

plans and facades recorded by the architectural specialist; and

- In 2016, Mauritz Naudé compiled a recording report of the Du Toit Farmstead. This report presented both the photographic recording of the farmstead, as well as the layout plans and facades recorded by the architectural specialist.

Aims of this Report

This report aims to provide a comprehensive document of all the work undertaken on the two farmsteads, with the aim of submitting this report, with the preceding documentation and reports, to the South African Heritage Resources Authority (SAHRA) for the purposes of applying for a destruction permit for the two farmsteads. This is as both farmsteads will be affected by coal mining activities in the near future.

Please note the following:

- The submission of the destruction permit application for the two farmsteads to SAHRA is due to the fact that both farmsteads were established more than 100 years ago;
- Despite the fact that both farmsteads are older than 100 years, and as a result are viewed as archaeological sites, no significant archaeological midden material could be observed in association with these farmsteads;
- One of the structures from the Du Toit Farmstead, namely the Livestock Enclosure, is earmarked for protection. As a result, the aim is not for this structure to be included in the destruction permit application; and
- This report is submitted with the preceding reports compiled by the author and the project architectural historian.

Summary of Key Sections of this Report

Please note the following key sections from this report:

- **Chapter 5 – History**

An intensive archival and historical desktop study was undertaken to compile a historic overview of the farmsteads and associated landscape. This chapter provides an overview of the history of this landscape, which is followed by a more in-depth assessment of the history and previous owners of the two farmsteads. This chapter

also includes assessments of both historical and archival maps as well as an assessment of old aerial photographs.

- **Chapter 6 – Description of the two Farmsteads**

This chapter provides detailed descriptions of the two farmsteads and the structures identified there. It also provides many of the photographs that were taken by the project architectural historian Mauritz Naudé as part of the photographic recording he undertook of the two farmsteads. This chapter also provides measured drawings of the two farmsteads compiled by Mr. Naudé as well as site layout plans for both farmsteads.

- **Chapter 7 – Impact Assessment**

This chapter provides the assessments undertaken by the project architectural historian Mauritz Naudé on the two farmsteads in 2012 and 2013.

- **Chapter 8 – Mitigation**

This chapter outlines the mitigation measures that were recommended by the project architectural historian Mauritz Naudé on the two farmsteads in 2012 and 2013. It also discusses how these mitigation measures were addressed in the two recording reports compiled by Mr. Naudé in 2014 and 2016. Lastly, this chapter also highlights where in this current report the completed mitigation measures (such as photographs, measured drawings etc.) can be found.

Conclusions

This report provides a comprehensive view of all the assessments and mitigation work that was undertaken by PGS and the project architectural historian on the two farmsteads. In the opinion of the authors, all the mitigation measures that were recommended for the two farmsteads have been satisfactorily addressed. The authors hereby request that permits be granted for the destruction of the two farmsteads.

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A *Project team CV's*

TERMINOLOGY AND ABBREVIATIONS

Archaeological resources

This includes:

- 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;
- 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 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;
- 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 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 in 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 boards;
- 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

Early Stone Age

The archaeology of the Stone Age between 700 000 and 2 500 000 years ago.

Fossil

Mineralised bones of animals, shellfish, plants and marine animals. A trace fossil is the track or footprint of a fossil animal that is preserved in stone or consolidated sediment.

Heritage

That which is inherited and forms part of the National Estate (historical places, objects, fossils as defined by the National Heritage Resources Act 25 of 1999).

Heritage resources

This means any place or object of cultural significance and as stated under Section 3 of the NHRA, can include the following:

- 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, and
- sites of significance relating to the history of slavery in South Africa.

Holocene

The most recent geological time period which commenced 10 000 years ago.

Late Stone Age

The archaeology of the last 30 000 years associated with fully modern people.

Late Iron Age (Early Farming Communities)

The archaeology of the last 1000 years up to the 1800's, associated with iron-working and farming activities such as herding and agriculture.

Middle Stone Age

The archaeology of the Stone Age between 30 000-300 000 years ago, associated with early modern humans.

Palaeontology

Any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

Table 1 – List of abbreviations used in this report

Abbreviations	Description
AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
CRM	Cultural Resource Management
DEA	Department of Environmental Affairs
ECO	Environmental Control Officer
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
ESA	Early Stone Age
GPS	Global Positioning System
HIA	Heritage Impact Assessment
IAP	Interested and 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 Authority
SAHRA	South African Heritage Resources Agency

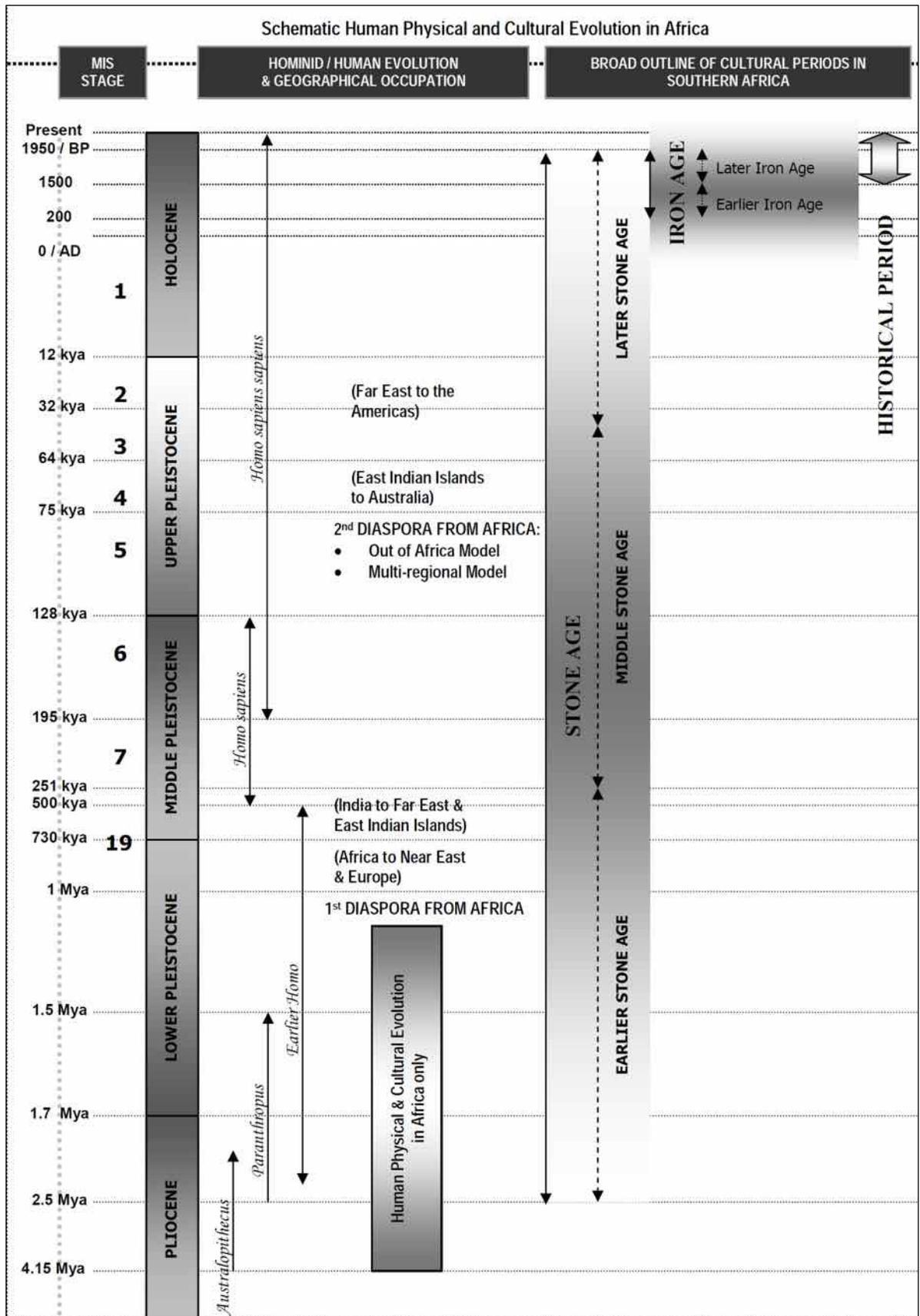


Figure 1 – Human and Cultural Timeline in Africa (Morris, 2008)

1 INTRODUCTION

PGS Heritage (Pty) Ltd was appointed by Glencore (Pty) Ltd to undertake the Phase 2 mitigation work for the purposes of obtaining destruction permits for two old farmsteads that will be affected by coal mining activities near Emalahleni, Emalahleni Local Municipality, Nkangala District Municipality, Mpumalanga Province.

The two farmsteads in question are as follows:

- Du Toit Farmstead, located on Portion 7 of the farm Steenkoolspruit 18-IS; and
- Meyer Farmstead, located on Portion 6 of the farm Steenkoolspruit 18-IS.

1.1 Scope of the Study

The study aims to identify possible heritage sites and finds that may occur in the proposed study area.

The report aims to inform the EIA to assist the developer in responsibly managing the discovered heritage resources, in order to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999) (NHRA).

1.2 Specialist Qualifications

This report was compiled by PGS Heritage (Pty) Ltd.

The staff at PGS has a combined experience of nearly 70 years in the heritage consulting industry. PGS and its staff have extensive experience in managing heritage impact assessment processes and mitigation work.

The following individuals were involved with this study:

- Mr Polke Birkholtz, the project manager, principal heritage specialist and author, is registered with the ASAPA as a Professional Archaeologist and is also accredited with the CRM Section of the same association. He has 19 years of experience in the heritage assessment and management field and holds a B.A. (cum laude) from the University of Pretoria specialising in Archaeology, Anthropology and History and a B.A. (Hons.) in Archaeology (cum laude) from the same institution.
- Miss Cherene de Bruyn, the co-author of this report, is registered with the Association of Southern African Professional Archaeologists (ASAPA) as a Professional Archaeologist

and is accredited as a Principal Investigator and Field Director, she is further also a member of the International Association for Impact Assessment South Africa (IAIASA). She holds a MA in Archaeology from University College London, and a BSc (Hons) in Physical Anthropology and a BA (Hons.) in Archaeology from the University of Pretoria.

- The architectural assessment was undertaken by architectural historian Mr Mauritz Naudé.

1.3 Assumptions and Limitations

The following assumptions and limitations regarding this study and report exist:

- The history of the structures in question is based on the information obtained from both available oral and archival information.

1.4 Legislative Context

The identification, evaluation and assessment of any cultural heritage site, artefact or finds 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

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

- i. GNR 982 (Government Gazette 38282, 14 December 2014) promulgated under the National Environmental Management Act (NEMA) Act 107 of 1998
 - a. Basic Assessment Report (BAR) – Regulations 19 and 23
 - b. Environmental Scoping Report (ESR) – Regulation 21
 - c. Environmental Impacts Assessment (EIA) – Regulation 23
 - d. Environmental Management Programme (EMPr) – Regulations 19 and 23
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
 - a. Protection of Heritage Resources – Sections 34 to 36
 - b. Heritage Resources Management – Section 38

- iii. MPRDA Regulations of 2014
 - a. Environmental reports to be compiled for application of mining right – Regulation 48
 - b. Contents of scoping report – Regulation 49
 - c. Contents of environmental impact assessment report – Regulation 50
 - d. Environmental management programme – Regulation 51
 - e. Environmental management plan – Regulation 52

- iv. The Regulations relating to the Management of Human Remains (GNR 363 of 2013 in Government Gazette 36473) promulgated under the National Health Act (Act No. 61 of 2003)
 - a. Exhumation and Reburial of Human Remains – Regulations 26, 27 and 28

The NHRA stipulates that cultural heritage resources may not be disturbed without authorisation from the relevant heritage authority. Section 34(1) of the NHRA states that “*no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...*”.

The NEMA (No 107 of 1998) states that an integrated EMP should (23:2 (b)) “*...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage*”.

In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure that a comprehensive and legally compatible HIA report is compiled.

2 TECHNICAL DETAILS OF THE PROJECT

2.1 Location of Farmsteads

Meyer Farmstead	
Coordinates	S 26.087434 E 29.239624
Location	<p>The farmstead is located near the eastern bank of the Steenkoolspruit and forms part of the property that is presently surrounded by coal mining activity and owned by Glencore.</p> <p>The site is located 19 km south-east of Ogies, 24km south of Emalahleni and 18.8 km north of Kriel. The site is located in the Nkangala District Municipality of the Mpumalanga Province.</p>
Property	Portion 6 of the farm Steenkoolspruit 18 IS
Topographic Map	2629AA

Du Toit Farmstead	
Coordinates	S 26.080295 E 29.232273
Location	<p>The farmstead is located near the western bank of the Steenkoolspruit and forms part of the property that is presently surrounded by coal mining activity and owned by Glencore.</p> <p>The study area is located 19 km south-east of Ogies, 22.5km south of Emalahleni and 19.2 km north of Kriel. The site is located in the Nkangala District Municipality of the Mpumalanga Province.</p>
Property	Portion 7 of the farm Steenkoolspruit 18 IS
Topographic Map	2629AA

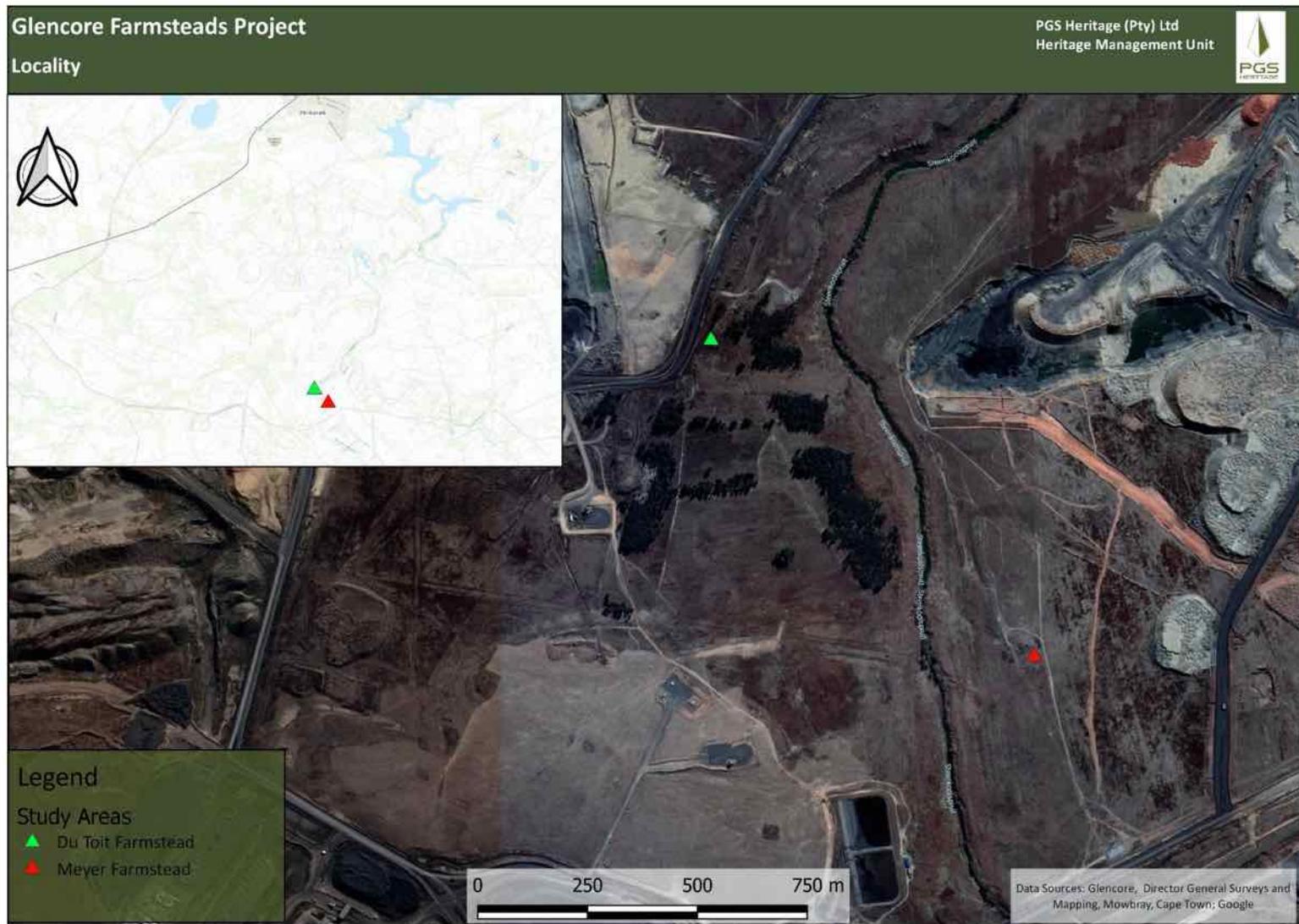


Figure 2 – The study area within its regional context.



Locality

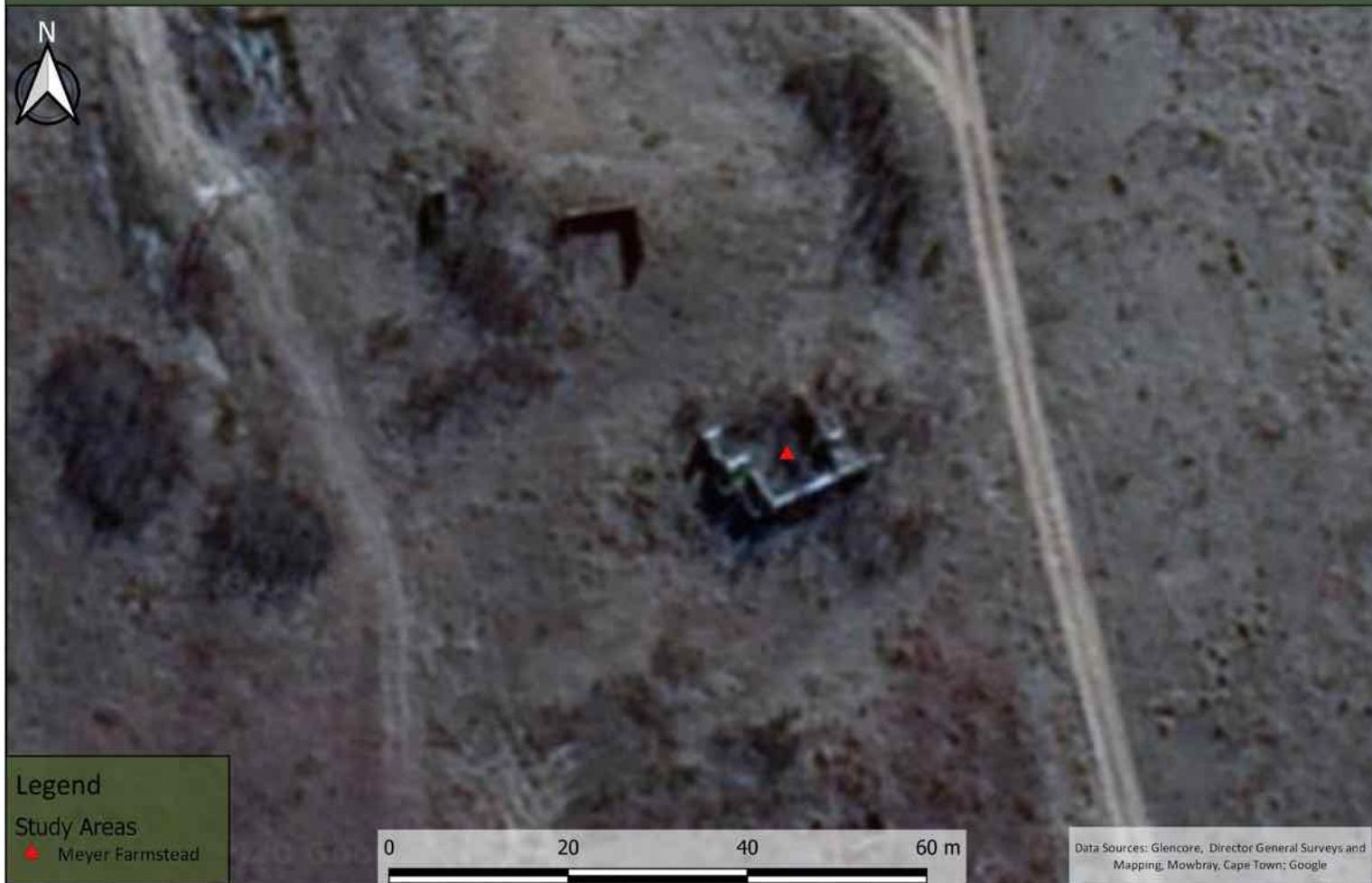


Figure 3 - View of the Meyer Farmstead



Locality

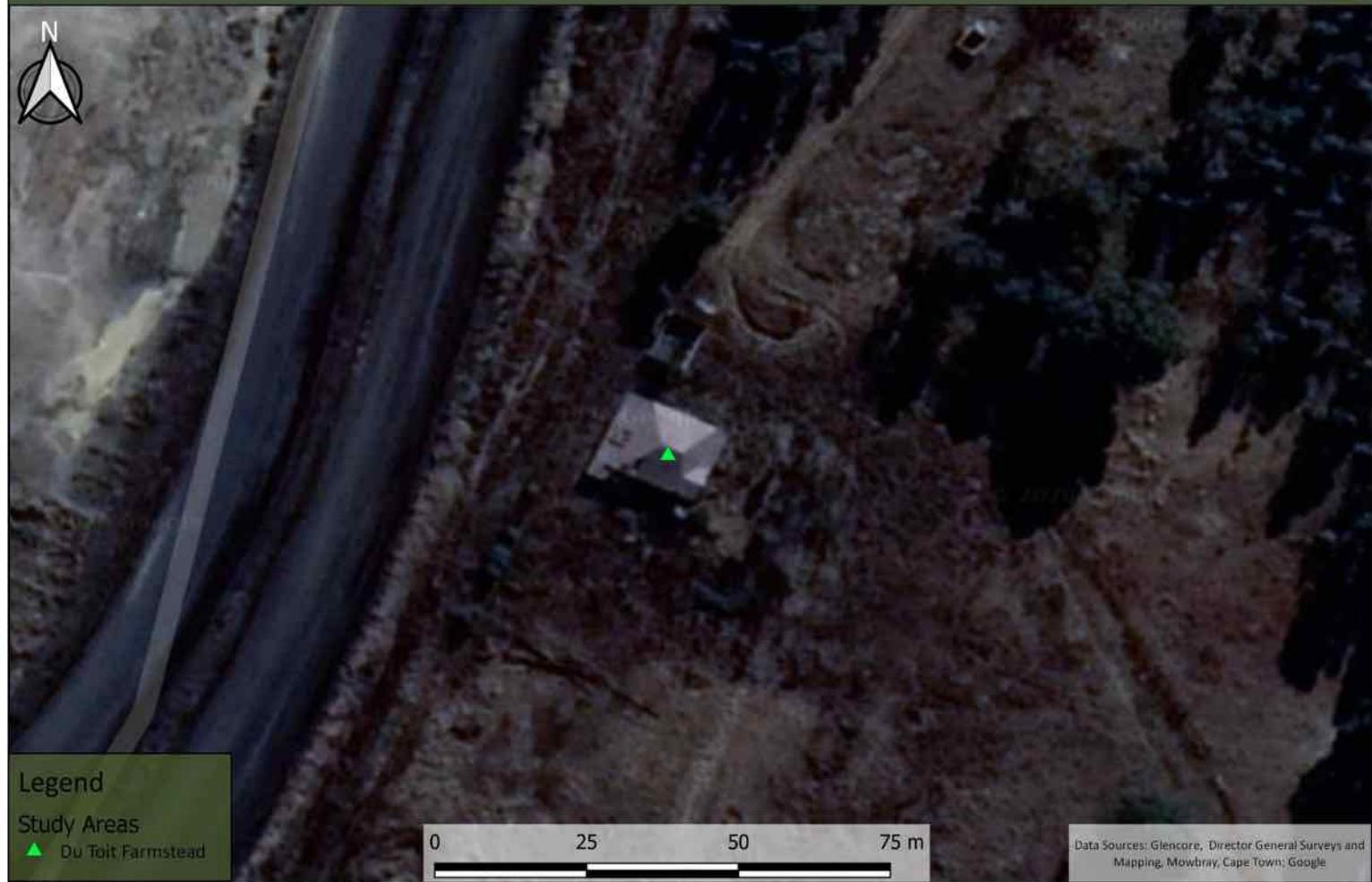


Figure 4 - View of the Du Toit Farmstead

2.2 Technical Project Description

The two farmsteads will be affected by coal mining activities.

3 IDENTIFICATION OF FARMSTEADS AND BACKGROUND TO THIS STUDY

The following reports and studies preceded the current report:

- In 2009, the Meyer farmstead was included in a Heritage Impact Assessment for the Proposed DMO Mining Venture undertaken by Cultmatrix (2009);
- In 2012, PGS Heritage & Grave Relocation Consultants were appointed to undertake a Heritage Assessment of the Du Toit farmstead. This report was undertaken by Polke Birkholtz (Heritage Specialist/Archaeologist) and Mauritz Naudé (Architectural Historian);
- In 2012, the Meyer farmstead was included in a Heritage Impact Assessment for the Proposed Atcom East Expansion of the Impunzi Colliery undertaken by PGS Heritage & Grave Relocation Consultants;
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- In 2013, both the Du Toit and Meyer farmsteads are mentioned in a Heritage Statement for the Atcom and Tweefontein Dragline Relocation Project undertaken by Digby Wells Environmental (2013);
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- In 2016, Mauritz Naudé compiled a recording report of the Du Toit Farmstead. This report presented both the photographic recording of the farmstead, as well as the layout plans and facades recorded by the architectural specialist.

4 ASSESSMENT METHODOLOGY

4.1 Methodology for Assessing Heritage Site Significance

The methodology utilised for the undertaking of this assessment, will be outlined below.

Step I – Desktop Study: An archival and historical desktop study was undertaken to provide a historic framework for the project area and surrounding landscape. This was augmented by a study of available historical and archival maps, as well as an assessment of old aerial photographs. Furthermore, a study of available oral and archival information was undertaken to better interpret

the two farmsteads.

Step II – Fieldwork: The following fieldwork was undertaken for the two farmsteads:

- *Thursday, 6 October 2011*

The daughter of the person who built and occupied the Du Toit farmstead was identified. Ms Isak Johannes du Toit lives in Emalahleni, and an informal meeting with her took place;

- *Wednesday, 29 August 2012*

Field Assessment of the Du Toit farmstead by a team comprising an archaeologist/heritage specialist (Polke Birkholtz) and an architectural historian (Mauritz Naudé);

- *August 2013*

Field Assessment of the Meyer Farmstead by an architectural historian (Mauritz Naudé) and field assistant (Charl Naudé);

- *October 2014*

The architectural historian Mauritz Naudé undertook photographic recording of the Meyer farmstead and also recorded layout plans and facades of some of the farm buildings;

- *Monday, 21 November 2016 & Tuesday, 22 November 2016*

The architectural historian Mauritz Naudé undertook photographic recording of the Du Toit farmstead and also recorded the layout plans and facades of the farm dwelling;

- *Monday, 28 November 2016 & Tuesday, 29 November 2016*

Recording of the site layout plans of the Du Toit and Meyer farmsteads. This recording work was undertaken by Total Station by an archaeologist/heritage specialist (Polke Birkholtz) and a field assistant (Derrick James);

Step III – The final step involved the compilation of a report, which is this document. Although a number of reports have already been compiled, this report represents the final report which brings all the previous studies together into one document.

The significance of heritage 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),
- Density of scatter (dispersed scatter)
 - Low - <10/50m²
 - Medium - 10-50/50m²
 - High - >50/50m²
- 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 - No-go or relocate development position

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

E - Preserve site

Site Significance

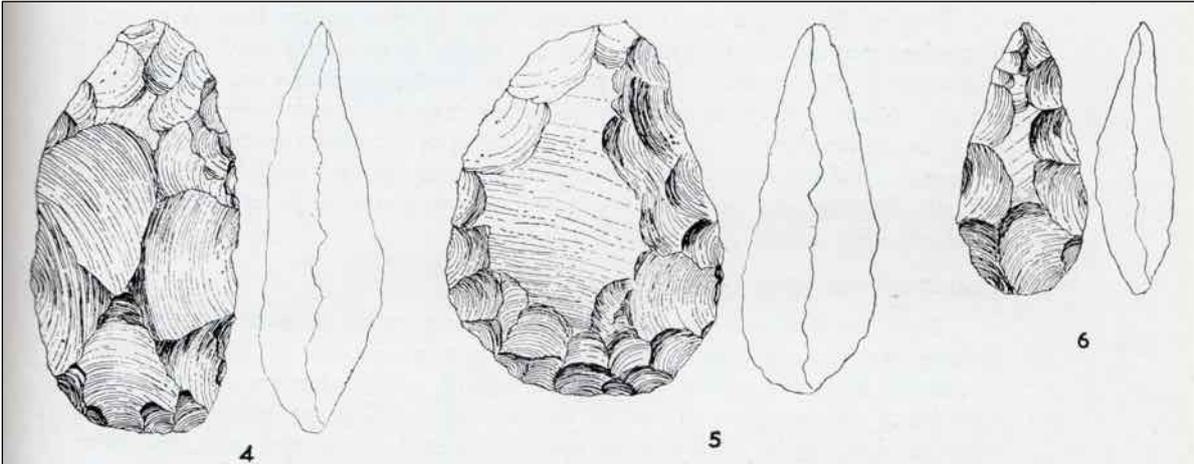
Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report (see **Table 2**).

Table 2 – Site significance classification as prescribed by SAHRA

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	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	Grade 4A	High/Medium	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium	Recording before destruction
Generally Protected C (GP.C)	Grade 4D	Low	Destruction

5 HISTORIC OVERVIEW OF THE FARMSTEADS AND SURROUNDING LANDSCAPE

5.1 Archaeological and Historical Overview of the Study Area and Surroundings

DATE	DESCRIPTION
The Study Area and Surroundings during the Stone Age	
<p>The South African Stone Age is the longest archaeologically-identified phase identified in human history and lasted for millions of years. Very little is known about the Stone Age archaeology of the study area and its immediate surroundings.</p>	
<p>2.5 million to 250 000 years ago</p>	<p>The Earlier Stone Age is the first and oldest phase identified in South Africa's archaeological history and comprises two technological phases. The earliest of these technological phases is known as Oldowan which is associated with crude flakes and hammer stones and dates to approximately 2 million years ago. The second technological phase in the Earlier Stone Age of Southern Africa is known as the Acheulian and comprises more refined and better made stone artefacts such as the cleaver and bifacial handaxe. The Acheulian phase dates back to approximately 1.5 million years ago.</p> <p>No information with regard to Early Stone Age sites from the surrounding area could be found. However, it seems possible for such sites to exist here.</p>
	
<p><i>Figure 5 – Example of Early Stone Age Later Acheulian handaxes. These handaxes were identified at Blaaubank near Rooiberg. Cropped section of an illustration published in Mason (1962:199).</i></p>	
<p>250 000 to 40 000 years ago</p>	<p>The Middle Stone Age (MSA) dates to between 250 000 to 40 000 years BP. MSA dates of around 250 000 BP originate from sites such as Leopards Kopje in Zambia, while the late Pleistocene (125 000 BP) yields a number of important dated sites associated with modern humans (Deacon & Deacon, 1999). The MSA is characterised by flake and blade industries, the first use of grindstones, wood and bone artefacts, personal ornaments, use of red ochre, circular hearths and a hunting and gathering lifestyle.</p> <p>Two low density surface scatters of Middle Stone Age lithics are located 5.2km north by north-east of the closest point along the present study area boundaries. These surface scatters (TAV 3 & TAV 5) were identified on the western bank of the Steenkoolspruit during a heritage impact assessment undertaken in 2001 by a team which also included the author of this report (CRM Africa & Matakoma, 2001).</p>

40 000 years ago to the historic past	<p>The Later Stone Age (LSA) is the third phase identified in South Africa's Stone Age history. This phase in human history is associated with an abundance of very small stone artefacts or microliths. A large number of Later Stone Age materials are found around the general vicinity of the study area. Unfortunately, these are mostly in the form of surface material which has been eroded out of dongas and riverbeds. As a result, the primary context of these sites and associated material is often in doubt (Van Schalkwyk, 2001).</p> <p>A natural sandstone shelter containing some Later Stone Age lithics is located 3.2km north-east of the Du Toit Farmstead. This sandstone shelter (TAV 6) was identified during a heritage impact assessment undertaken in 2001 by a team which included the author of this report (CRM Africa & Matakoma, 2001).</p>
The Study Area and Surroundings during the Iron Age	
<p>The arrival of early farming communities during the first millenium, heralded in the start of the Iron Age for South Africa. The Iron Age is that period in South Africa's archaeological history associated with pre-colonial farming communities who practiced cultivation and pastoralist farming activites, metal working, cultural customs such as lobola and whose settlement layouts show the tangible representation of the significance of cattle (known as the Central Cattle Pattern) (Huffman, 2007).</p>	
AD 1700 – AD 1840	<p>The Buispoort facies of the Moloko branch of the Urewe Tradition is the first association of the study area's surroundings with the Iron Age. It is most likely dated to between AD 1700 and AD 1840. The key features on the decorated ceramics of this facies include rim notching, broadly incised chevrons and white bands, all with red ochre (Huffman, 2007).</p> <p>Buispoort can be associated with the Western Sotho-Tswana, including the Hurutshe and Kwena, and the settlement layouts of Buispoort sites are known as Molokane-type walling (Huffman, 2007).</p> <p>According to the map published by Huffman (2007:203), the present study area is located on the far eastern edge of the known distribution of Buispoort facies sites and settlements.</p>
AD 1821 – AD 1823	<p>After leaving present-day KwaZulu-Natal the Khumalo Ndebele (more commonly known as the Matabele) of Mzilikazi migrated through the general vicinity of the study area under discussion before reaching the central reaches of the Vaal River in the vicinity of Heidelberg in 1823 (www.mk.org.za).</p> <p>Two different settlement types have been associated with the Khumalo Ndebele. The first of these is known as Type B walling and was found at Nqabeni in the Babanango area of KwaZulu-Natal. These walls stood in the open without any military or defensive considerations and comprised an inner circle of linked cattle enclosures (Huffman, 2007). The second settlement type associated with the Khumalo Ndebele is known as Doornspruit, and comprises a layout which from the air has the appearance of a 'beaded necklace'. This layout comprises long scalloped walls (which mark the back of the residential area) which closely surround a complex core which in turn comprises a number of stone circles. The structures from the centre of the settlement can be interpreted as kitchen areas and enclosures for keeping small stock.</p> <p>It is important to note that the Doornspruit settlement type is associated with the later settlements of the Khumalo Ndebele in areas such as the Magaliesberg Mountains and Marico and represent a settlement under the influence of the Sotho with whom the Khumalo Ndebele intermarried. The Type B settlement is associated with the early Khumalo Ndebele settlements and conforms more to the typical Zulu form of settlement. As the Khumalo Ndebele passed through the general vicinity of the study areas shortly after leaving Kwazulu-Natal, one can assume that their settlements here would have conformed more to the Type B than the Doornspruit type of settlement. It must</p>

be stressed however that no published information could be found which indicates the presence of Type B sites in the general vicinity of the study area.

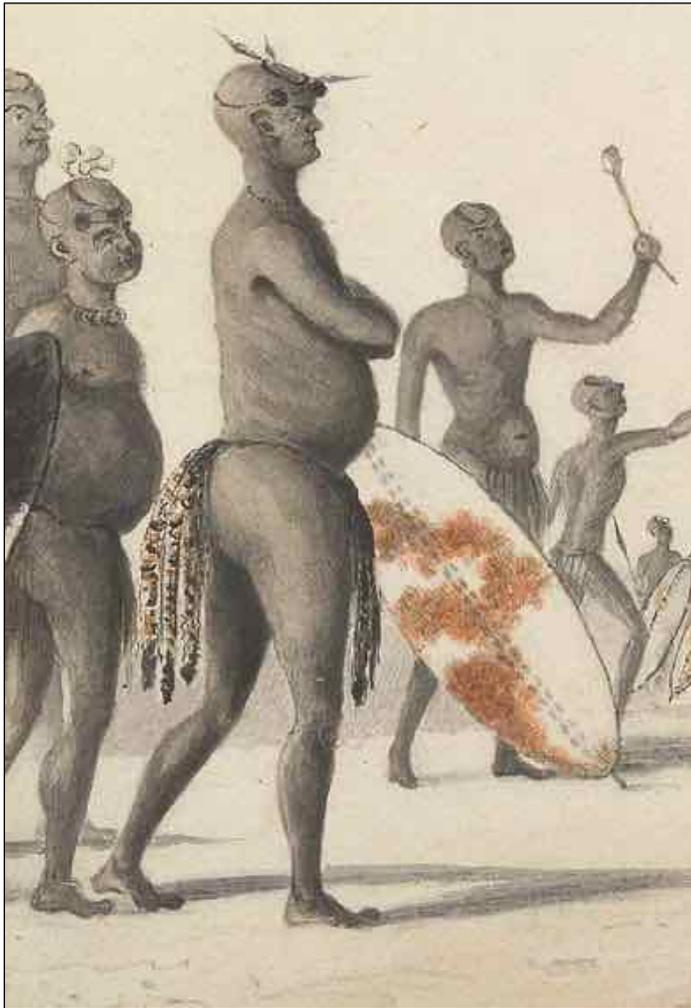


Figure 6

King Mzilikazi of the Matabele. This depiction was made by Captain Cornwallis Harris in c. 1838 (www.sahistory.org.za).

The Study Area and Surroundings during the Early Historical Period

The early Historical Period within the study area and surroundings was characterised by the arrival of newcomers to this area. The first arrivals would almost certainly have been travellers, traders, missionaries, hunters and fortune seekers. However, with time, this initial trickle was replaced by a flood of white immigrants during the 1830s, when a mass migration of roughly 2 540 Afrikaner families (comprising approximately 12 000 individuals) from the frontier zone of the Cape Colony to the interior of Southern Africa took place. The people who took part in this Great Trek were later to be known as Voortrekkers (Visagie, 2011).

1836	The first Voortrekker parties crossed over the Vaal River (Bergh, 1999).
1845	Both the district and town of Lydenburg was established in this year (Bergh, 1999). The study area fell within the Lydenburg district at the time.
1850s - 1860s	In general terms, this period saw the early establishment of farms by white farmers in the general vicinity of the study area. This said, the archival study has shown that the farm Steenkoolspruit was formally inspected by the government of the Zuid-Afrikaansche Republiek during February 1868. Of course, this does not necessarily mean that before this date no farms were already settled and farmed, simply that during February 1868 the farms were officially proclaimed and registered with the government of the day.

	<p>The permanent settlement of white farmers in the general vicinity of the study area would have resulted in the proclamation of individual farms and the establishment of permanent farmsteads. Features that can typically be associated with early farming history of the area include farm dwellings, sheds, rectangular stone kraals, canals, farm labourer accommodation and cemeteries.</p> <p>Although it is possible that a few heritage sites associated with the very first establishment of white farmers from the study area and surroundings would likely still exist, these would be few in number due to their age as well as the destruction of farmsteads by the British forces during the South African War in accordance with the so-called 'scorched earth' policy.</p> <p>The other sites often associated with these early farms are graves and cemeteries for both white farmers and black farm labourers. These sites are often all that remains of the farmsteads of the mid to late nineteenth century.</p>
1872	<p>The study area now fell within the district of Middelburg (Bergh, 1999). During the same year, the general surroundings of the study area was visited by a geologist from Eastern Europe, Woolf Harris. During his visit, Harris identified coal in the Van Dyksdrift area. He is also believed to have started the Maggie's Mine the following year (Falconer, 1990).</p>
1872 – 1894	<p>During this time a number of small coal mining operations were started in the general vicinity of the study area. With no railway line connecting this area with the coal markets further to the west, these early coal mines proved a difficult commercial undertaking. Four coal mines were in existence in the Witbank area by 1889, namely Brugspruit Adit, Maggie's Mine, Steenkoolspruit and Douglas (Falconer, 1990). Lang (1995:26) indicates that "...steam coal was brought to the Rand from Steenkoolspruit by oxwagon and sold there for 50 shillings a ton of 2 000 lbs."</p>

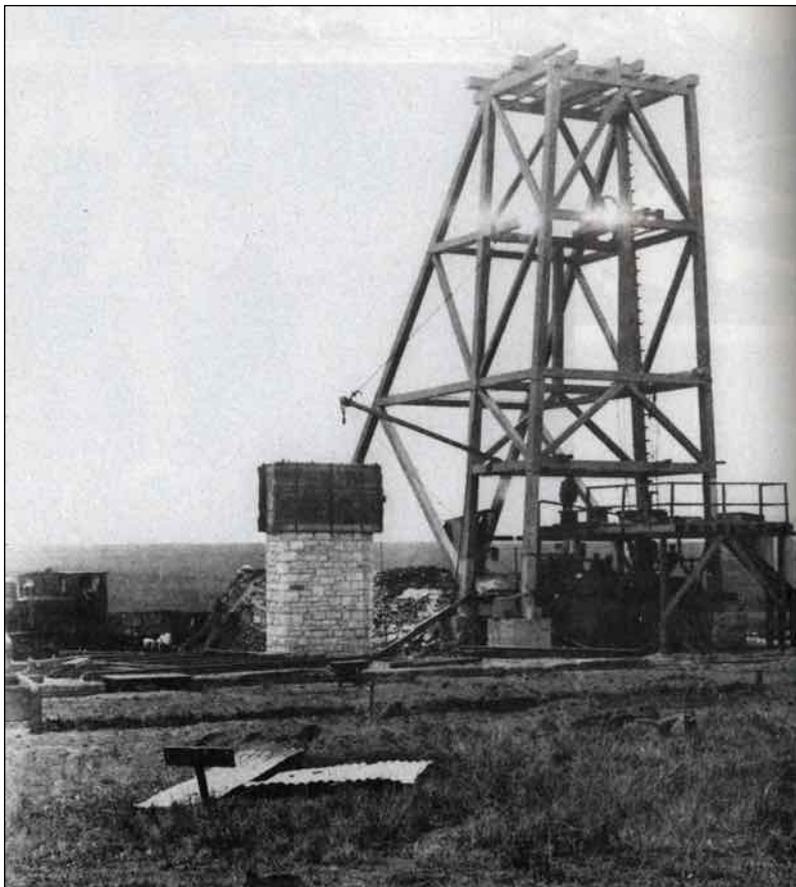


Figure 7

Historic photograph of the coal mine at Brugspruit (Lang, 1995).

<p>20 October 1894 – 2 November 1894</p>	<p>On this day the railway line between Pretoria and Delagoa Bay (present-day Maputo) was completed, with the last work on the line taking place near Balmoral, some 35km north-west of the study area. However, the symbolic completion of the line's construction took place at Brugspruit Station, where the last rail screw was fastened by President Paul Kruger on 2 November 1894 (De Jong, 1996). Brugspruit (later Clewer) Station was located 22km north-west of the present study area.</p> <p>The completion of the NZASM Eastern Line, as it was known, was very significant for the study area and surroundings. This is due to the fact that the vast deposits of coal known to have existed in this area since the mid 19th century, could now be commercially mined (Bulpin, 1989) and easily transported to the Witwatersrand gold mines and the populated centres of Pretoria and Johannesburg where it was most required. As a result, the completion of the Eastern Line created a massive stimulus not only for the mining of coal but also for the establishment of coal mines. As will be seen below, a number of coal mines were established in the years following on the completion of the Eastern Line.</p>
<p>1895</p>	<p>According to Schalekamp (2006), the Landau Colliery was established in 1895 by the Cassel Coal Company on the farm Klipfontein to supply coal to the gold mines along the Witwatersrand. If this date is correct, it would mean that the Landau Colliery was the earliest coal mine to be established in close proximity to the present study area and in all likelihood also one of the first such collieries to be established in proximity to present-day Emalahleni.</p> <p>However, other sources such as the South African Mining Yearbook of 1911 indicate that the Cassel Coal Company was registered in August 1895 as a reconstruct of the Cassel Colliery Company Limited. According to this source, the property of the Cassel Coal Company at the time of its registration was restricted to sections of a farm near Springs. In November 1898 the Cassel Coal Company resolved to acquire the property and assets of Landau's Transvaal Colliery comprising 26 860 acres on the farms Klipfontein, Klippan, Kleinkopje, Wolvekrans and Blaauwkrans. This means that the Cassel Coal Company became involved in properties located in the direct surroundings of the present study area in November 1898.</p>
<p>1896</p>	<p>A coal mine shaft was sunk on the farm Witbank in this year by Samuel Stanfield (Erasmus, 2004). In September 1896, Witbank Colliery Limited was established (South African Mining Yearbook, 1941/1942). The Witbank Colliery was located approximately 22km north-by-northeast of the study area.</p> <p>The Kromfontein Coal Company appears to have been established in 1896 as well, seemingly to mine coal on the farm Kromfontein (Gluckstein, 1903/4). Three of the six proposed pits are located on this farm. The farm Kromfontein is located immediately south-west of the Steenkoolspruit.</p>
<p>9 April 1897</p>	<p>The Anglo-French (Transvaal) Navigation Coal Estates Limited was registered on 9 April 1897. This company was established to purchase the undertaking of the Anglo-French Collieries Syndicate Limited. Possibly at the time of its establishment and certainly before 1911, the company acquired the coal leasehold rights to the farm Blaauwkrans (South African Mining Yearbook, 1911). A section of the present study area is located on the farm Blaauwkrans. This farm is located approximately 20km north-east of the study area.</p>
<p>The Study Area and Surroundings during the South African War</p>	
<p>The South African War (also known as the Anglo Boer War) between Great Britain and her allies and the Boer Republics of the Transvaal (known as the <i>Zuid-Afrikaansche Republiek</i>) and Free State took place between October 1899 and May 1902. No battles or skirmishes associated with this war are</p>	

known from within the study area or its direct surroundings, although a number are known from the surrounding landscape. These two battles are the Battle of Wilmansrust of 12 June 1901 (20 km east of the study area) and the Battle of Bakenlaagte of 30 October 1901 (located 19km south-west of the study area) (Van der Westhuizen & Van der Westhuizen, 2000). A number of events associated with this war are known to have taken place in the immediate surroundings of the study area. These will be discussed in more detail below.

<p>May 1901</p>	<p>During May 1901, a British column under the command of Colonel Edmund Henry Hynman Allenby visited the farm Kromfontein and destroyed the contents of a farmhouse belonging to a person named Samuel du Toit (National Archives, CJC, 28, 30394). The exact position of this farmhouse is not presently known. Incidentally, Colonel Allenby's Column was one of a number of mobile British columns which operated under the overall command of Sir John French in parts of present day Mpumalanga (Wavell, 2016). Kromfontein farm is located immediately south-west of Steenkoolspruit.</p>
<p>22 October 1901</p>	<p>On 22 October 1901, 37 Boers were captured on the farm Klippoortje 32 IS by a British column under the command of Colonel George Elliott Benson (Blake, 2012). Benson's column was also responsible for the destruction of a number of farmsteads from the surrounding landscape, including the farmstead of Albertus Nicolaas Steenkamp on the farm Blesbokfontein 38 IS (National Archives, CJC, 1145, 1159). The farm Klippoortje 32 IS is located a few kilometers west of the present study area. This military action of 22 October 1901 appears to represent the closest military skirmish of the war to the present study area.</p>
<p>c. 1901 - 1902</p>	<p>During the guerrilla phase of the war, a section of the Bethal Commando under the command of Kommandant H.S. Grobler stayed on the farm Kromfontein. The exact location of this camp is not presently known.</p>



Figure 8 - Kommandant Hendrik Stephanus Grobler of the Bethal Commando. During the guerrilla phase of the war Kommandant Grobler and a section of his commando were based on the farm Kromfontein.



Figure 9 - Colonel (later Field Marshall Viscount) Edmund Henry Hynman Allenby commanded the Inniskillings during the war. In May 1901 a column under his command destroyed the contents of a house at Kromfontein.

The Study Area and Surroundings during the Twentieth Century

The general surroundings of the study area underwent significant changes and development during the twentieth century, including extensive development in the form of coal mining, railway and transportation development as well as the establishment of nearby towns such as Witbank (present day Emalahleni), Ogies and Kriel.

1903	The town of Witbank was formally proclaimed (Erasmus, 2004).
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Figure 10 – Historic photograph of Witbank taken in 1936 (Delius, 2007:340).

1905	While no details are available, it would appear that the Cassel Coal Company's Landau Colliery started producing coal in 1905. The coal output for this year was 181,071 tons (The Mining Yearbook, 1911). The mine continued to operate during the subsequent years.
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1906	The town of Witbank received its first Health Board (Bulpin, 1989).
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December 1906	In December 1906 the Anglo-French (Transvaal) Navigation Colliery produced its first coal output. This followed on the striking of four coal seams during shaft sinking activities (South African Mining Yearbook, 1911). This mine also continued to operate during the subsequent years.
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October 1907	The Tweefontein Colliery Limited was registered at the time (South African Mining Yearbook, 1941/2). The mine was located roughly 7 km north by north-west of the study area.
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1912	This year represents the earliest reference to the mining company Tavistock Colliery which could be found in the National Archives (SAS, 762, RG122/25/1). On 31 August 1937, the mining company Tavistock and Uitspan Collieries Limited was also established (South African Mining Yearbook, 1941/1942).
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1914	The town of Witbank became a municipality in this year (Bulpin, 1989).
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13 April 1921	On 13 April 1921 the South African Coal Estates (Witbank) Limited was established to acquire the assets of the Cassel Coal and Anglo-French companies (South African Mining Yearbook, 1941/2). These companies were amalgamated into this newly established company, and as a result of both the Landau and Navigation Collieries now formed part of the South African Coal Estates (Witbank) Limited.
1923 - 1926	Based on the information that is presently available, it would appear that the village of Clewer was established during this period by the South African Coal Estates (Witbank) Limited. The company owned Clewer for some time after its establishment. In a number of inscriptions in these mining yearbooks, Clewer is referred to as ' <i>the garden township</i> '. See for example the South African Mining Yearbook that was published in 1941/2.
1928	The town of Ogies was established (Erasmus, 2004). Ogies is located 18.3km west-by-northwest of the Du Toit Farmstead.
1930	By this time the South African Iron and Steel Industrial Corporation (IsCOR) possessed coal rights on portions of the farms Klipplaats, Steenkoolspruit and Kromfontein (Commonwealth Mining and Metallurgical Congress, 1930).
23 June 1936	<p>The Phoenix Colliery Limited was registered at the time (South African Mining Yearbook, 1941/2). The mine was located 3.2 km north-east of the present study area.</p> <p>The company had leased the coal and fireclay rights from the South African Iron and Steel Industrial Corporation for a period of 99 years starting on 29 October 1936. In terms of this agreement Phoenix Colliery had to pay royalties to IsCOR on all coal brought to the surface after this date (South African Mining Yearbook, 1941/2).</p>
 <p data-bbox="185 1753 1390 1816">Figure 11 – Historic photograph was taken during the late 1940s of an unknown colliery near Witbank (Delius, 2007:159).</p>	
1940 - 1950	In this decade the railway line between Ogies and Broodsnyersplaas was constructed. It was the biggest railway construction undertaken during the 1940s. The line was built to provide a transport link for local farmers (Bergh, 1999). With the exception of railway lines and sidings associated with mining,

	the Ogies-Broodsniersplaas line was the nearest line to the present study area. In fact, this line passes only a short distance south of the study area.
May 1946	The Apex Mines Limited established the Greenside Colliery on the farm Groenfontein, with production commencing here during May 1946 (The Mining Yearbook, 1949). This mine is located south-west of the present study area.
Early 1970s	The town of Kriel was established on the farms Roodebloem and Onverwacht and was named after the first resident magistrate of Bethal, D.J. Kriel (www.mpumalanga.com). Kriel is located 12 km south of the study area.
1977	Arthur Taylor Colliery was established in 1977 as a section of Tavistock Collieries (Geological Society of South Africa, 1989). Within a few years it became a joint operation of Tavistock Collieries and Total Exploration South Africa (South African Mining and Engineering Journal, 1982). Significant sections of the present study area fell within the properties of the Arthur Taylor Colliery at the time.

5.2 History of the Properties associated with the Meyer and Du Toit Farmsteads

5.2.1 Early Ownership History of the Farm Steenkoolspruit

Both the Du Toit and Meyer farmsteads are located on the farm Steenkoolspruit 18 IS. The ownership record of the farm was obtained from the National Archives in Pretoria (RAK, 3081).

The farm Steenkoolspruit 18 IS (originally farm number 574 of the Lydenburg District, later farm number 304 of the Middelburg District followed by farm number 46 of the Witbank District) was first inspected by PJ Fourie on 20 February 1868. The farm was registered two years later on 24 February 1870 in the name of its first owner, Cornelius Gouws. It is interesting to note that the ownership record for the farm indicates that it was transferred from Gouws to Johannes Philippus Dreyer as early as 3 August 1866, two years before the farm's registration. The exact reason for this is not presently clear.

On 11 July 1870, the farm was transferred from J.P. Dreyer to Izak (Izaak) Johannes Meyer (2 June 1831 – 2 June 1904). Refer **Figure 12** for a photograph of IJ Meyer. He was a member of the Second Volksraad of the *Zuid-Afrikaansche Republiek* and the Meyer's Bridge outside Middelburg was named in his honour (Oberholster, 1972). Izak Johannes Meyer held on to the farm until his death on 2 June 1904. In terms of his estate, the farm was divided into three equal-sized sections and transferred to three individual owners on 30 March 1906. The farm ownership record indicates that these three equal-sized sections of the farm were each 1070 morgen $395 \frac{3}{5}$ roods in extent, which equates to approximately 920 hectares. These three equal-sized portions were transferred to Daniel Pieter Jacobus Grobler, Gerrit Frederik Meyer and Johannes Martinus Meyer (22 September 1865 - 4 March 1913). DPJ Grobler was married to Sara Maria Helena Meyer, a daughter of Izaak Johannes Meyer, whereas GF Meyer and JM Meyer were Izak Johannes Meyer's two sons (National Archives, RAK, 3081) (National Archives, MHG, 5497).

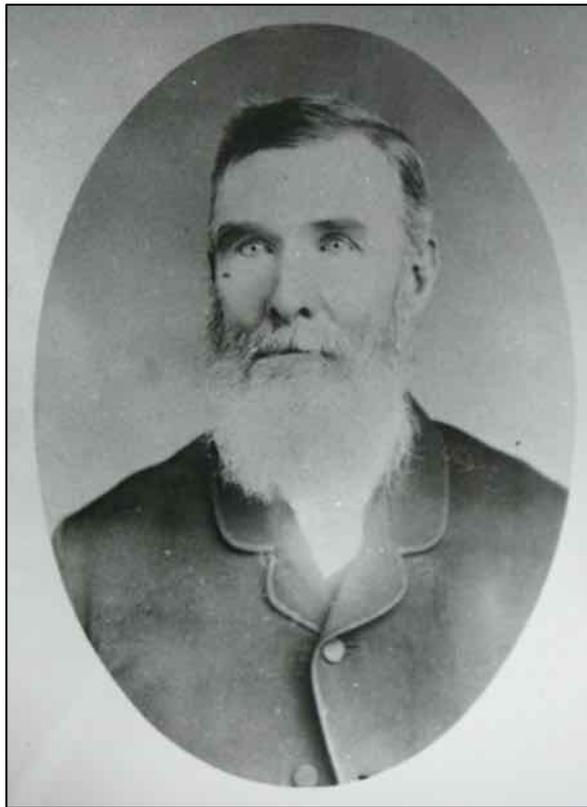


Figure 12 – Izak Johannes Meyer, who owned the farm Steenkoolspruit between 1870 and his death in 1904 (National Archives, Photographs, TAB, 786).



Figure 13 - Google Earth image showing the three divisions of the farm Steenkoolspruit. These divisions were derived from available archival and historical information and are not necessarily perfectly accurate.

Figure 13 above was compiled from available cadastral maps and information and depicts the layouts and extents of the three subdivided portions. Portion 1 of the farm as depicted on this diagram was transferred to Daniel Pieter Jacobus Grobler, Portion 2 from this diagram was transferred to Gerrit Frederik Meyer and the Remaining Extent of the farm Steenkoolspruit to Johannes Martinus Meyer. Portion 1 as depicted on this diagram is 918 hectares in extent, Portion 2 is 922 hectares in extent and the Remaining Extent as shown above 920 hectares in extent. The discrepancies between the extents of Portions 1 and 2 can in all likelihood be attributed to the technology available in 1906 to divide a farm into three exact portions.

It is also possible to state that Portion 1 as depicted in **Figure 13** above includes present-day Portions 1, 3, and 5, whereas Portion 2 shown represents the boundaries of present-day Portion 2. The Remaining Extent shown here comprises present-day Portions 4, 6, 7, 8, 9, 10, 11 and 12.

In the subsequent sections, the farm ownership history in terms of the history of the two farmsteads will be discussed.

5.2.2 History of the Property associated with the Meyer Farmstead

From current cadastral information it is known that the Meyer Farmstead is located on Portion 6 of the farm Steenkoolspruit 18 IS. According to oral history, the Meyer Farmstead was associated with a person named Abraham Meyer. As a result, archival and historical research was undertaken to confirm that a person by this name can be associated with this farm portion.

This research that was undertaken showed that Johannes Martinus Meyer, who received a portion (the Remaining Extent) of the farm from Izak Johannes Meyer in 1906, had seven children (MHG, 22088). One of these children is Abraham Isak Emmanuël Meyer (4 June 1905 – 27 August 1975), who one can assume is the Abraham Meyer that oral history associates with the Meyer Farmstead. Furthermore, as oral history places a person named Abraham Meyer at the farmhouse in question we can assume that he inherited it from his father Johannes Martinus Meyer. When observing Johannes Marthinus Meyer's estate papers (National Archives, MHG, 22088), it becomes evident that he did indeed divide his land into portions and bequeathed them to his seven children and his surviving spouse, Susanna Jacoba Meyer (De Villiers) (1 November 1870 – 23 May 1953).

From the above-mentioned information, the following observations can be made regarding the property that the Meyer Farmstead is located on:

- On 30 March 1906, the property formed part of the Remaining Extent of the farm Steenkoolspruit that was transferred from the estate of Izak Johannes Meyer to his son Johannes Martinus Meyer;

- Johannes Martinus Meyer owned the Remaining Extent of the farm Steenkoolspruit from 30 March 1906 until his death. In terms of his estate, the farm was subdivided and transferred to his seven children and surviving spouse, Susanna Jacoba Meyer (born De Villiers). The portion associated with the Meyer Farmstead appears to have been transferred from the estate of Johannes Martinus Meyer to his son Abraham Isak Emmanuël Meyer (4 June 1905 – 27 August 1975)(National Archives, MHG, 22088); and
- After the death of Abraham Isak Emmanuël Meyer on 27 August 1975, this portion of the farm was transferred from his estate to Henry Vivian Meyer on 15 September 1976.

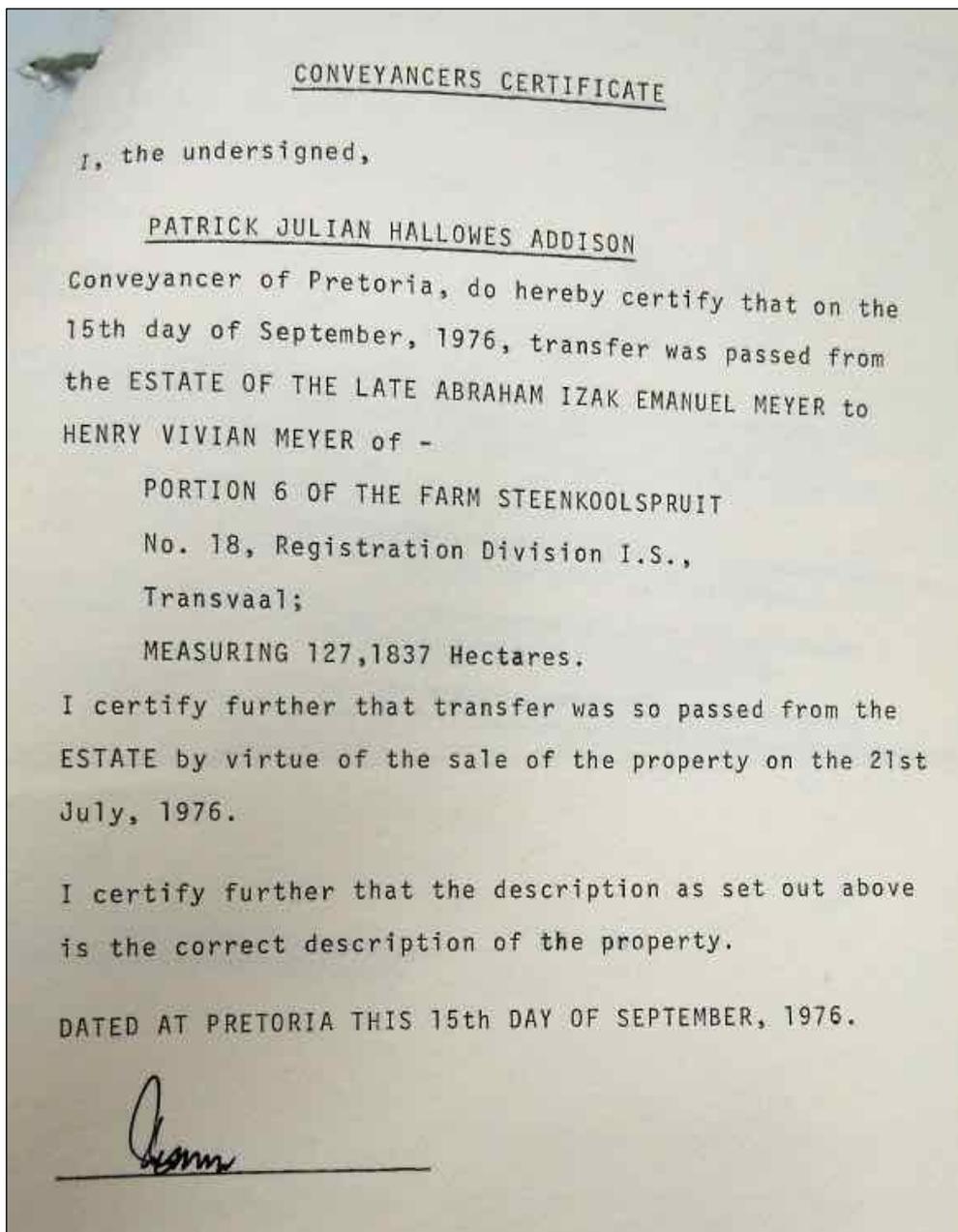


Figure 14 – This document represents a ‘conveyancers certificate’ for the transfer of Portion 6 of the farm Steenkoolspruit from the estate of Abraham Isak Emmanuël Meyer to Henry Vivian Meyer. It provides archival evidence for the direct association of the Meyer Farmstead with Abraham Abraham Isak Emmanuël Meyer.

5.2.3 History of the Property associated with the Du Toit Farmstead

The earliest association of any portion of the farm Steenkoolspruit with a person named Du Toit that could be found, was in the estate papers of Henry du Toit (National Archives, MHG, 6007/73). According to his estate papers, Portion 5 of the farm was transferred to him on 7 January 1957. This transaction is registered as Deed Number 324/1957. After the death of Henry du Toit, the same property was transferred from his estate to his wife Susanna Jacoba du Toit on 5 February 1974 (National Archives, MHG, 6007/73). From information that is currently available, it would appear that this original Portion 5 of the farm is currently known as Portion 7 of the farm Steenkoolspruit 18 IS (<https://csg.esri-southafrica.com>). This is said as the indicates extents of the two portions are almost identical. It is also known from the archival research that Portion 7 of the farm is certainly also associated with Henry du Toit (refer **Figure 15** below). This is also the property that the Du Toit Farmstead is located on.

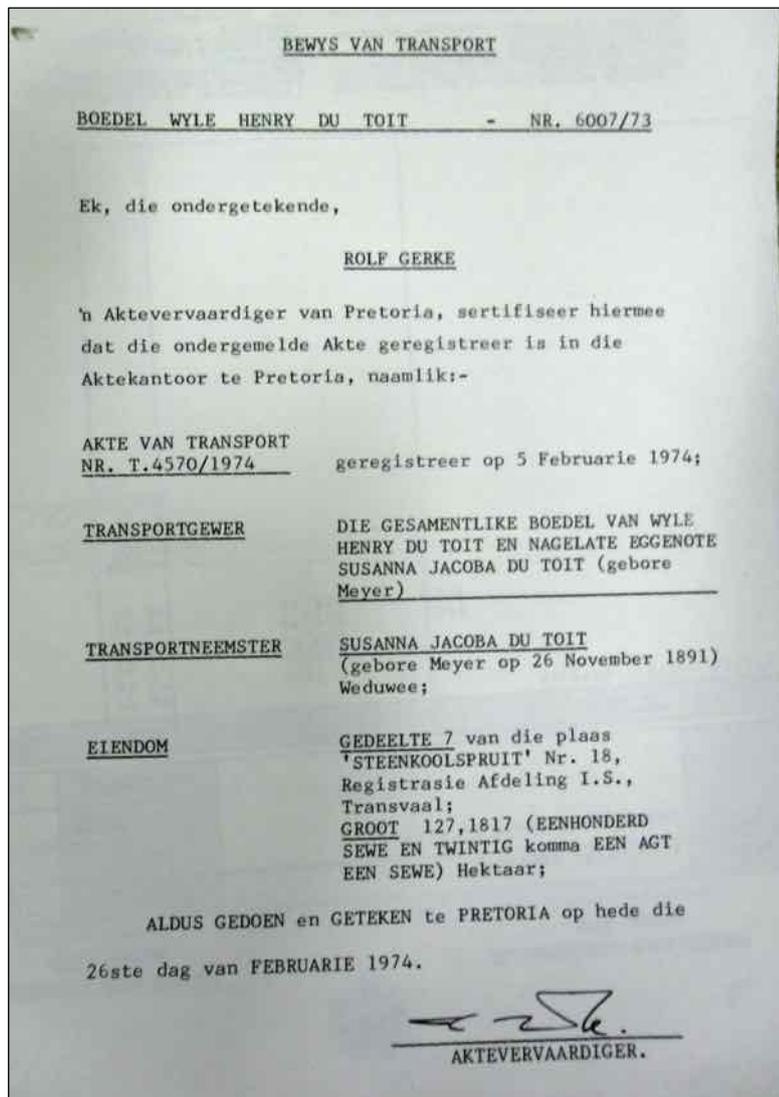


Figure 15 – This document confirms that Portion 7 of the farm Steenkoolspruit, the same portion that the Du Toit Farmstead is located on, can confidently be associated with Henry and Susanna Jacoba du Toit (National Archives, MHG, 6007/73)

As it is known that the Du Toit family had been living on the farm for some time before 1957, it means that they were residing on land not owned by them. However, the death certificate of Johannes Martinus Meyer makes it clear that Susanna Jacoba du Toit, Henry du Toit's wife, was his daughter (refer **Figure 16** below). With this in mind it is, therefore, possible that the Du Toit family was staying on land owned by Mrs Du Toit's family.

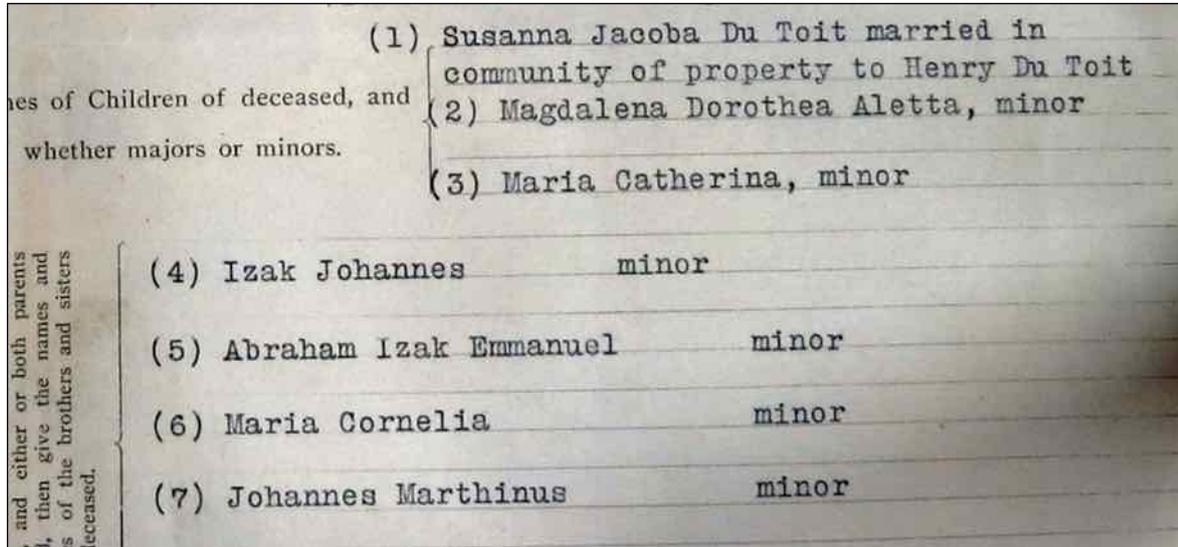


Figure 16 – Extract from Johannes Martinus Meyer's death certificate which shows the names of his children, including one 'Susanna Jacoba du Toit married in community of property to Henry du Toit'. It is therefore clear that Susanna Jacoba du Toit was the daughter of Johannes Martinus Meyer, and the granddaughter of Izak Johannes Meyer (National Archives, MHG, 22088).

The author of this report was fortunate enough to have been able to speak to the daughter of the person who built the farm dwelling in the first place. Ms Bessie du Toit was met at her home in Emalahleni. She indicated that although she did not know the exact date on which the dwelling was completed, it was built by her father sometime before her birth in 1934. When asked to provide a more specific date, Ms Du Toit suggested that the house may have been built around c. 1910.

As indicated, the person who built the house was the father of Bessie du Toit namely Henry du Toit. After completion, he and his wife (Bessie du Toit's mother) Susanna Jacoba Du Toit (born Meyer) resided in the house. Henry du Toit owned the Vaalkrans Garage near Van Dyksdrif.

After the death of her parents, Ms Du Toit's sister Ms Izzie du Toit resided in the home.

It is therefore apparent that from construction to the present day the farm dwelling was resided in by only members of the Du Toit family. However, in more recent years sections of the house appears to have been used as shelter by squatters. The remains of old mattresses and informal fireplaces inside some of the rooms could be observed during the fieldwork.



Figure 17 - Henry and Susanna Jacoba du Toit (born Meyer) who were the builders and first residents of the Du Toit Farmstead. The photograph was made available to the author by Ms Bessie du Toit.

5.3 Archival and Historical Maps

5.3.1 Bethal Sheet of the Major Jackson Map Series

This map forms part of the series of British military maps produced during the South African War (1899 -1902) under supervision of Major Jackson by the Mapping Section of the Field Intelligence Department, Army Headquarters.

The sheet depicted here is the Bethal (No. 5) Sheet of the said map series, and although its original production date was June 1900, the sheet depicted here represents the second revised edition which is dated to April 1901.

No buildings or features are depicted anywhere close to the positions of the two farmsteads on this map. The only building depicted within the farm boundaries on this map, is a building located west of the confluence of the Steenkoolspruit and Olifants River (see red arrow).



Figure 18 – Section of the Bethal Sheet of the Major Jackson Map Series. This sheet is the second revised version and dates to April 1901.

5.3.2 First Edition of the 2629AA Topographical Map

A section of the First Edition of the 2629AA Topographical Sheet is depicted below. The map was based on aerial photography undertaken in 1954, was surveyed in 1965 and drawn in 1967 by the Trigonometrical Survey Office.

The following observations can be made from this map:

- Both the Meyer and Du Toit farmsteads are depicted. This confirms that these two farmsteads are at least 55 years old. Interestingly, none of the buildings and structures found in association with these farm dwellings, are depicted on this map. This seems to suggest that these associated buildings and structures are younger than 55 years.
- A number of homesteads, presumably for farm workers, are also depicted in the surroundings of these farmsteads.



Figure 19 – Section of the First Edition of the 2629AA Topographical Map that was surveyed in 1965. The two farmsteads are indicated with red arrows.

5.3.3 Second Edition of the 2629AA Topographical Map

A section of the Second Edition of the 2629AA Topographical Sheet is depicted below. This map appears to have been surveyed in 1984 and published in 1986 by the Chief Director of Surveys and Mapping.

The following observations can be made from this map:

- The map depicts both the Du Toit and Meyer farmsteads, albeit both farmsteads are now shown to be comprised of two buildings each. This indicates that these two secondary buildings were constructed between 1965 and 1984, and as a result are between 36 and 55 years old.
- A number of homesteads, presumably for farm workers, are also depicted in the surroundings of these farmsteads.

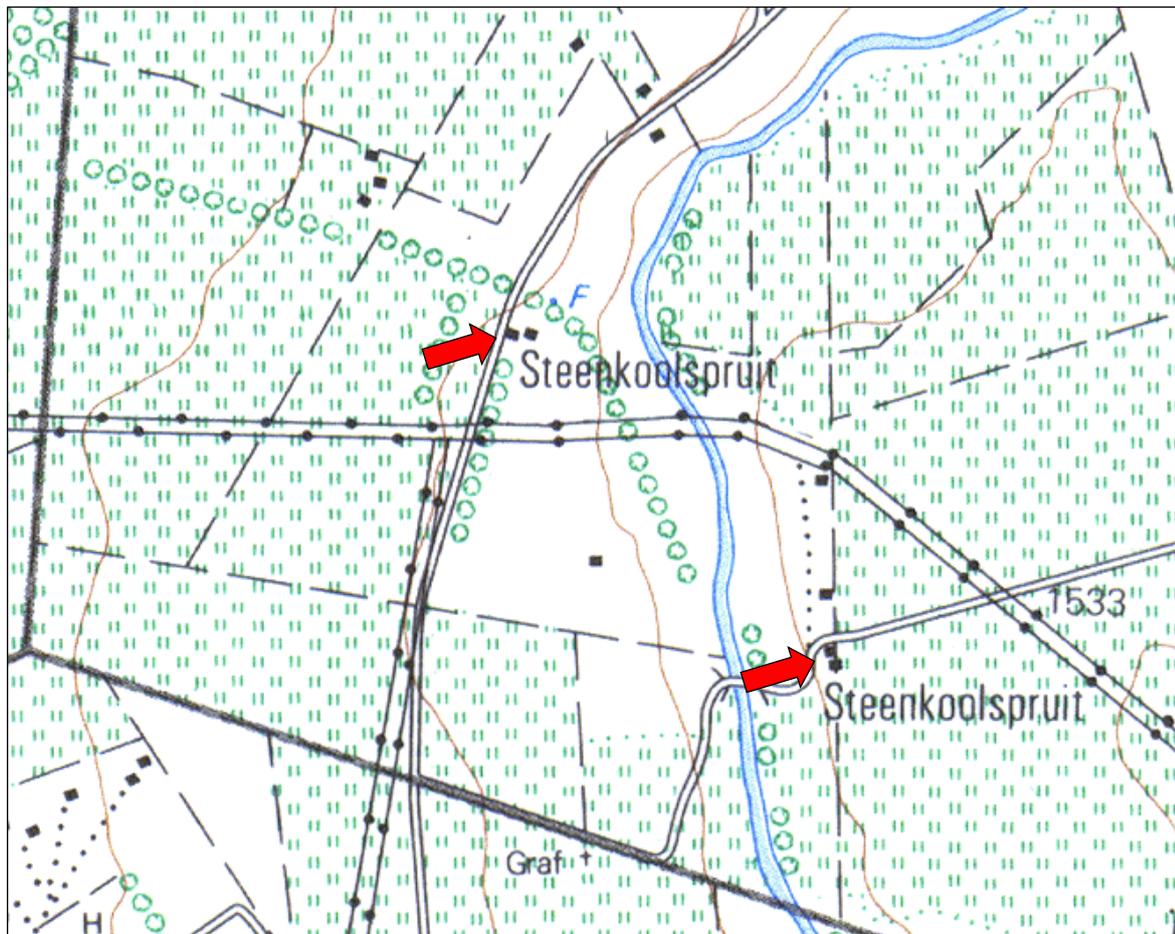


Figure 20 – Section of the Second Edition of the 2629AA Topographical Map that dates to 1984. The two farmsteads are indicated with red arrows.

5.3.4 Third Edition of the 2629AA Topographical Map

A section of the Third Edition of the 2629AA Topographical Sheet is depicted below. This map appears to have been surveyed in 1995 and was published in 1996 by the Chief Directorate Surveys and Land Management.

The following observations can be made from this map:

- The map depicts both the Du Toit and Meyer farmsteads. Very little appears to have changed in the 11 years since the previous depiction of the two farmsteads, with each farmstead still shown to be comprised of two buildings.
- Interestingly, this map sheet does not depict any roads or tracks still leading to the Meyer farmstead, which seems to suggest that no one lived here anymore.

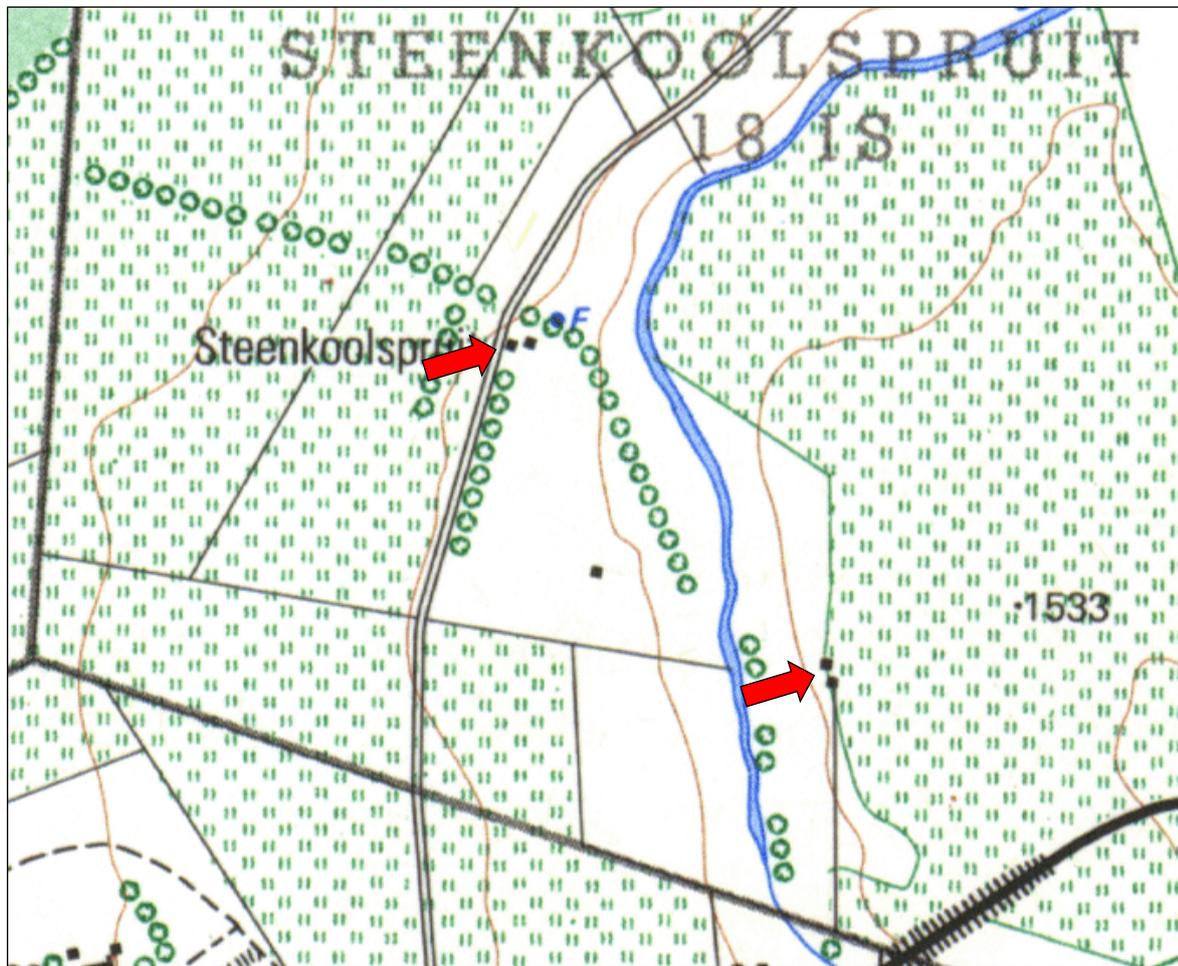


Figure 21 – Section of the Third Edition of the 2629AA Topographical Map that dates to 1984. The two farmsteads are indicated with red arrows.

5.4 Old Aerial Photographs

Aerial photographs provide a valuable tool for establishing the chronology of buildings, as well as their approximate age. A sequence of aerial photographs was obtained for the study area. Images taken in 1954 and 1968 were obtained from the National Geo-Spatial Information at the Department of Rural Development and Land Reform in Cape Town.

In the section that follows, the relevant aerial photographs will be discussed. Any observations and conclusions that can be drawn from the study of these aerial photographs will be outlined here.

5.4.1 Aerial Photograph taken in 1954

The 1954 aerial photograph (NGI, Aerial Photographs, 340_03_16723) represents the oldest aerial photograph depicting the two farmsteads that could be found.

In the first image depicted below, a wider view of this aerial photograph will be depicted. This will

be followed by closer views of the Meyer and Du Toit farmsteads.

The following observations can be made from the wider view of the 1954 aerial photograph:

- At the time, the surroundings of the two farmsteads were characterised by a rural farming landscape typical of the South African Highveld, consisting of farmsteads, farm worker dwellings and agricultural fields.

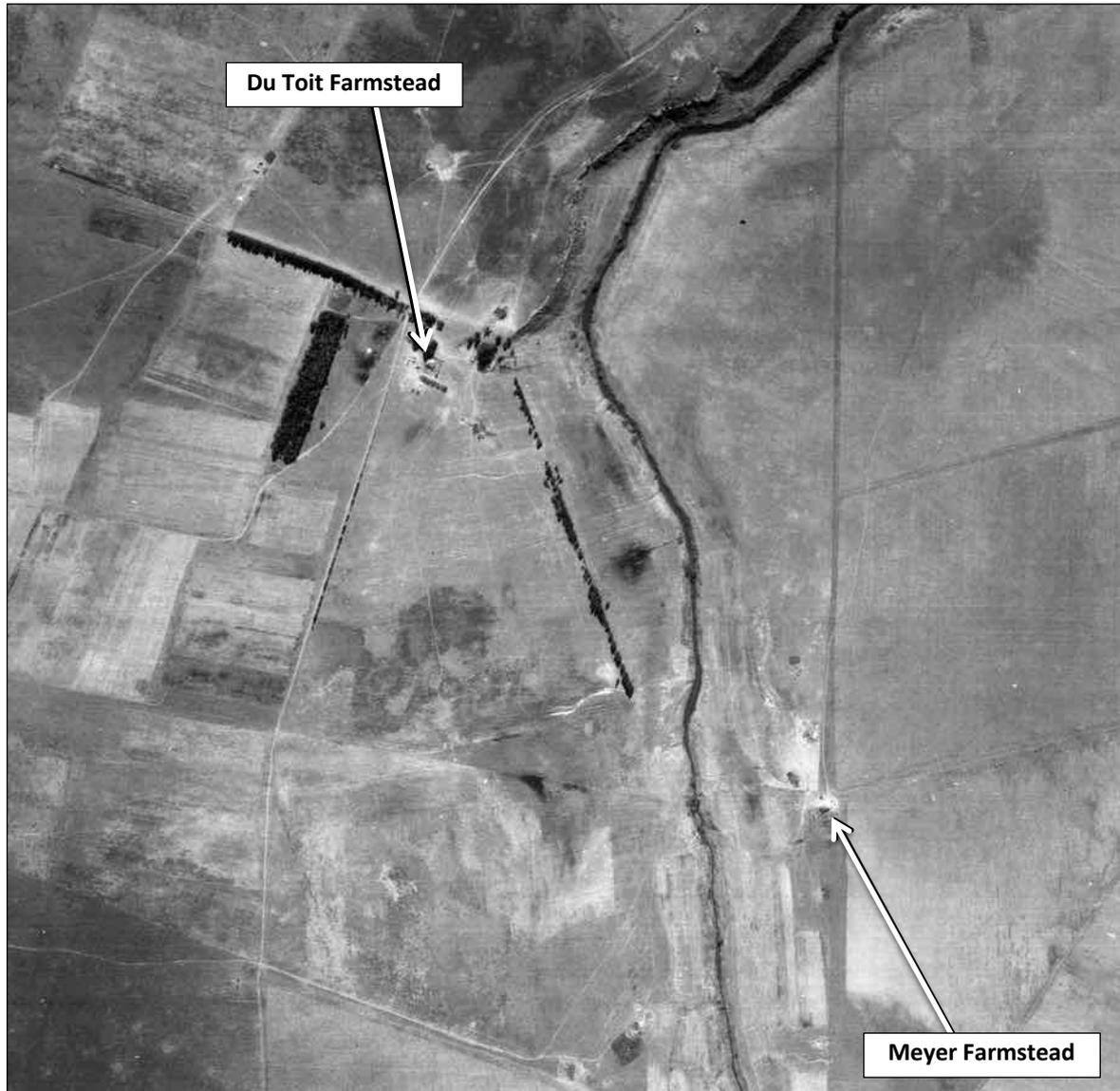


Figure 22 – Wider view of the 1954 aerial photograph showing the two farmsteads and their immediate surroundings (NGI, Aerial Photographs, 340_03_16723). The positions of the two farmsteads are indicated.

The image below represents a closer view of the 1954 aerial photograph showing the Meyer Farmstead. The following observations can be made from this image:

- The farmstead is shown to be comprised of a farm dwelling (Feature A) and a livestock enclosure (Feature B);
- North of the farmstead and outside the area shown on the image below, a cluster of buildings believed to be two farm worker dwellings can be seen; and
- Access roads and agricultural fields can be seen in the surroundings of the study area.

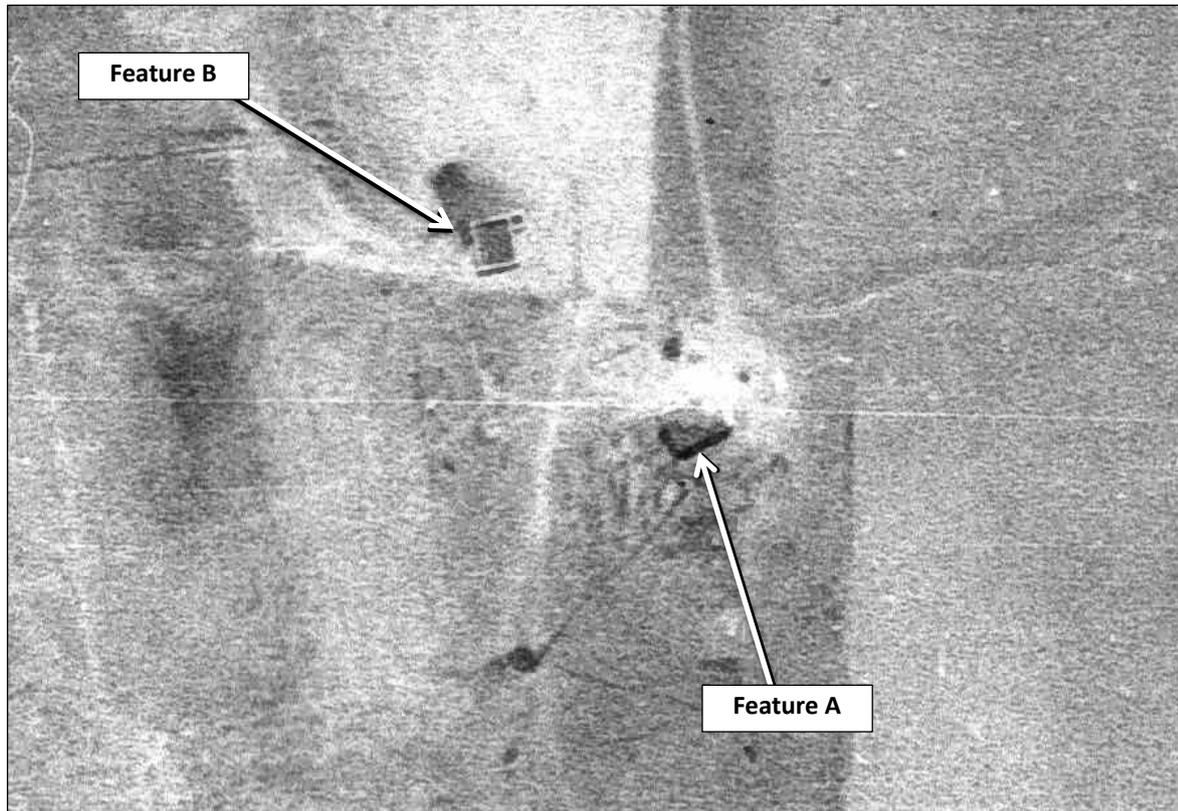


Figure 23 – Closer view of the 1954 aerial photograph showing the Meyer farmstead in its immediate surroundings (NGI, Aerial Photographs, 340_03_16723). The features mentioned in the text are marked.

The image below represents a closer view of the 1954 aerial photograph showing the Du Toit Farmstead. The following observations can be made from this image:

- The farmstead is shown to be comprised of a farm dwelling (Feature C), a cluster of smaller buildings west of the farm dwelling (Feature D), a rectangular feature which may have been a livestock enclosure (Feature E), a cluster of unidentified structures (Feature F) and a livestock enclosure (Feature G);
- North of the livestock enclosure at Feature G, and outside the area shown on the image below, a cluster of buildings believed to be farm worker dwellings can be seen;
- Access roads and agricultural fields can be seen in the surroundings of the study area;

- A number of rows and copses of planted trees can be seen; and
- The Steenkoolspruit River can be seen on the right.

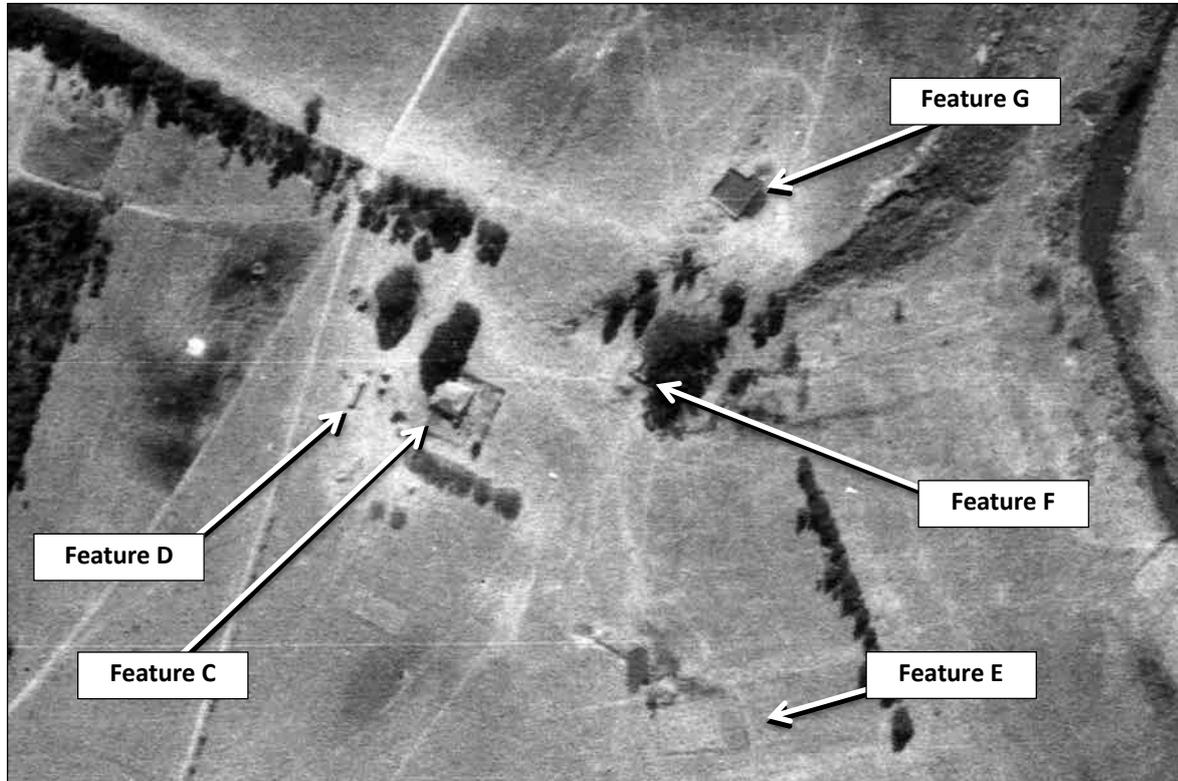


Figure 24 – Closer view of the 1954 aerial photograph showing the Du Toit farmstead in its immediate surroundings (NGI, Aerial Photographs, 548_02_0136). The features mentioned in the text are marked.

5.4.2 Aerial Photograph taken in 1968

The 1968 aerial photograph (NGI, Aerial Photographs, 548_02_0136) represents the oldest aerial photograph depicting the two farmsteads that could be found.

In the first image depicted below, a wider view of this aerial photograph will be depicted. This will be followed by closer views of the Meyer and Du Toit farmsteads.

The following observations can be made from the wider view of the 1968 aerial photographs:

- At the time, the surroundings of the two farmsteads were characterised by a rural farming landscape typical of the South African Highveld, consisting of farmsteads, farm worker dwellings and agricultural fields.

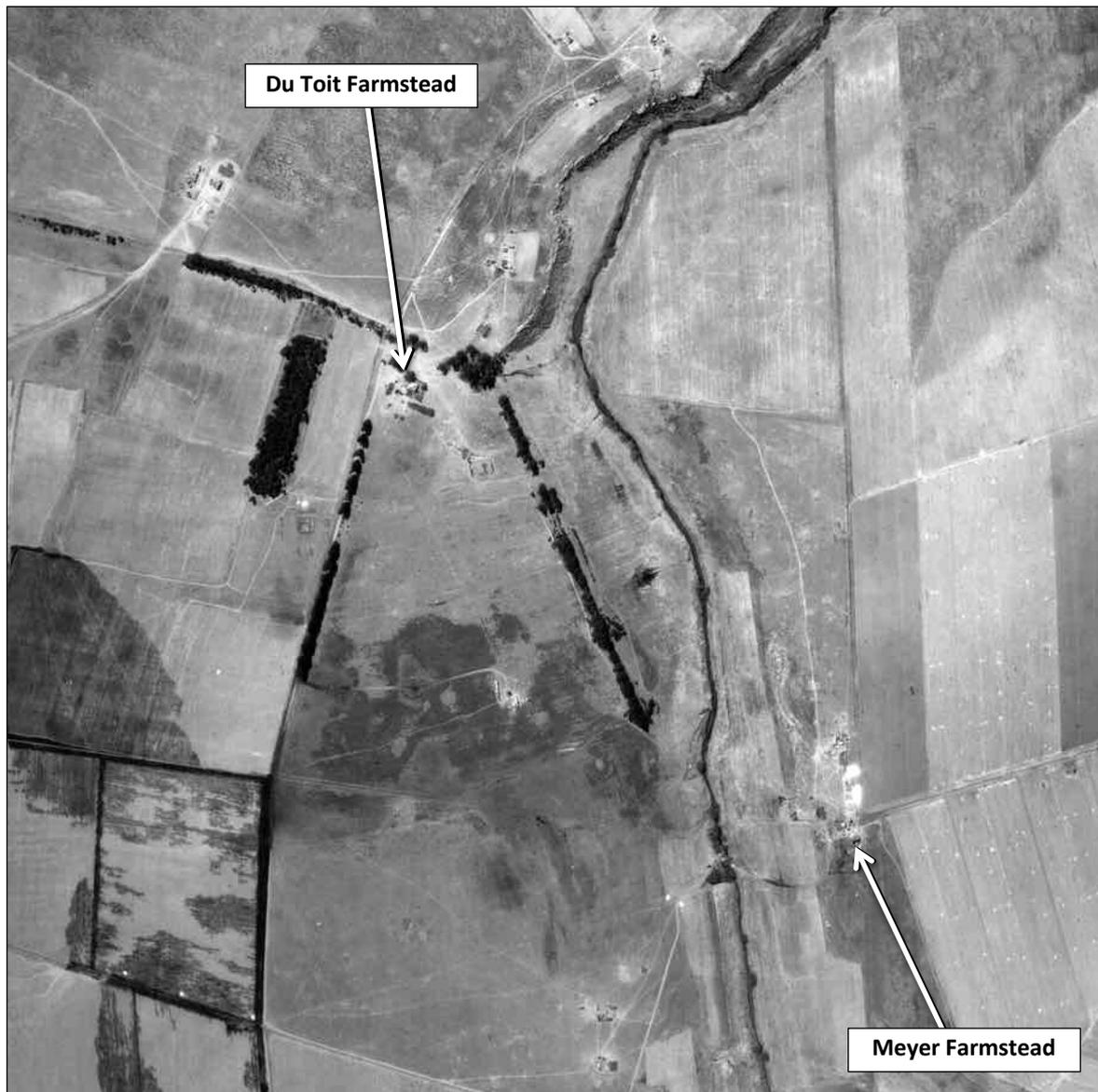


Figure 25 – Wider view of the 1968 aerial photograph showing the two farmsteads and their immediate surroundings (NGI, Aerial Photographs, 548_02_0136). The positions of the two farmsteads are indicated.

The image below represents a closer view of the 1968 aerial photograph showing the Meyer Farmstead. The following observations can be made from this image:

- The farmstead is shown to be comprised of a farm dwelling (Feature A), a livestock enclosure (Feature B), a rectangular building believed to be a garage (Feature H) and a cluster of unidentified buildings (Feature I);
- North of the farmstead and outside the area shown on the image below, a cluster of buildings believed to be two farm worker dwellings can be seen; and
- Access roads and agricultural fields can be seen in the surroundings of the study area.

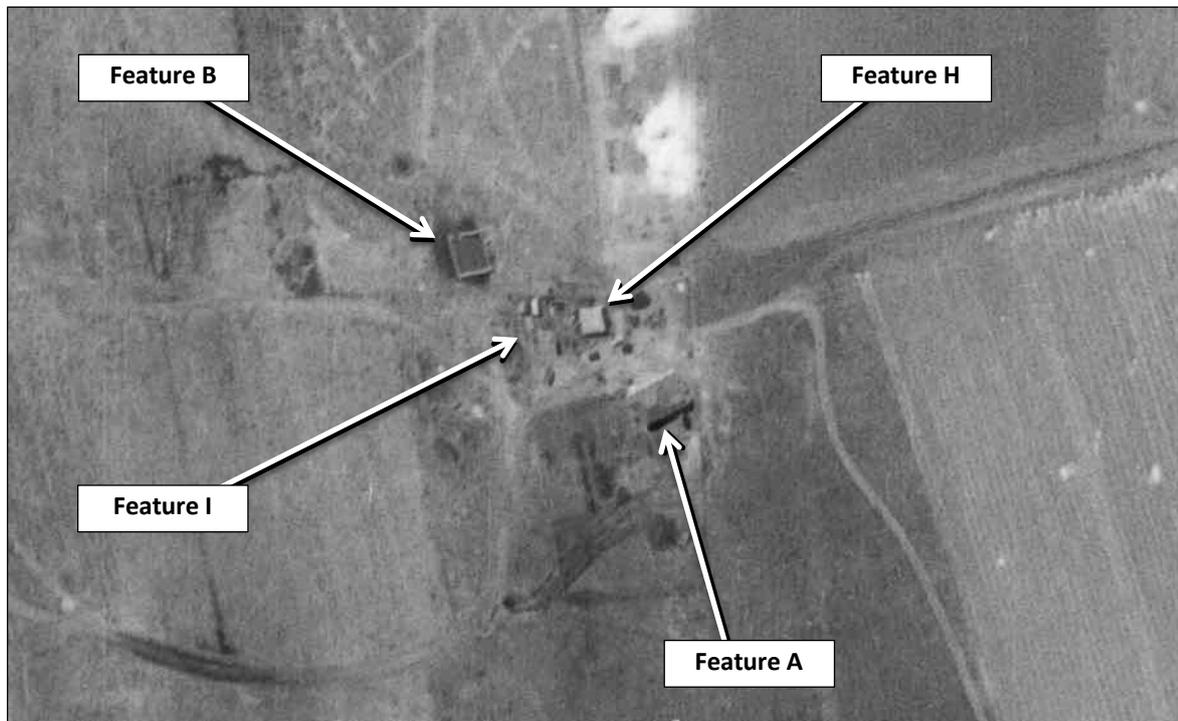


Figure 26 – Closer view of the 1968 aerial photograph showing the Meyer farmstead in its immediate surroundings (NGI, Aerial Photographs, 548_02_0136). The features mentioned in the text are marked.

The image below represents a closer view of the 1968 aerial photograph showing the Du Toit Farmstead. The following observations can be made from this image:

- The farmstead is shown to be comprised of a farm dwelling (Feature C), a cluster of smaller buildings west of the farm dwelling (Feature D), a rectangular feature which may have been a livestock enclosure (Feature E) and a livestock enclosure (Feature G);
- North of the livestock enclosure at Feature G, and outside the area shown on the image below, a cluster of buildings believed to be farm worker dwellings can be seen;
- Access roads and agricultural fields can be seen in the surroundings of the study area;
- A number of rows and copses of planted trees can be seen; and
- The Steenkoolspruit River can be seen on the right.

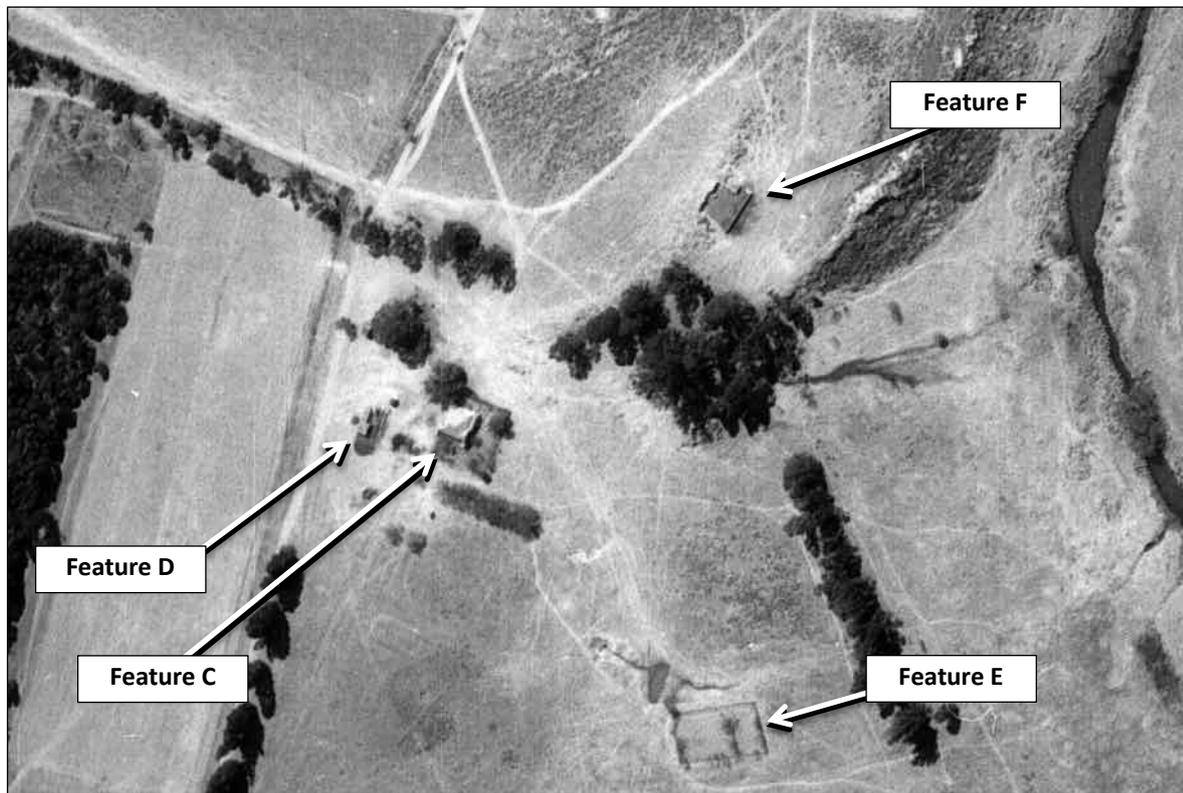


Figure 27 – Closer view of the 1968 aerial photograph showing the Du Toit farmstead in its immediate surroundings (NGI, Aerial Photographs, 548_02_0136). The features mentioned in the text are marked.

6 DESCRIPTION OF HISTORIC FARMSTEADS

6.1 Meyer Farmstead

6.1.1 Farm Dwelling

6.1.1.1 General description

The building is a small sandstone farm dwelling set on a slight slope with its principal façade facing towards to the south-west (downhill). The building was already a ruin during the field assessments and site visits with no remains of the roof structure or roof covering left. Most of the interior clay brick walling have melted due to the exposure to rainwater while the original exterior walling constructed with sandstone along two elevations remained intact.

The floor plan resembles the typical vernacular character of a core building with several later additions and extensions. The original exterior is defined by solid sandstone walling constructed with clay mortar. The floor plan indicates that the gable side of the building - usually considered the more public façade and main entrance - was located downhill and the dwelling was originally entered from this side. The dwelling was entered along a low set of stairs, underneath a small verandah and the central passage formed the spine for movement inside the dwelling. All the interior walls were constructed with sun-dried clay bricks and these have melted away making it difficult to determine the exact internal arrangement of spaces. The dwelling also had a back verandah but this was later closed-off becoming a room, most likely a dining room as it is located directly adjacent to the room that contains evidence of having a chimney suggesting that it could have been a kitchen.

The functions of the various rooms remain difficult to determine as all detailing (floors, doors, ceilings and roofs) have been removed. Later additions to the floor plan seem to be irrational and wrongly placed such as the bathroom and toilet. When the front verandah was closed-off it became a bathroom and a smaller room assumed to be a toilet was added where the front door used to be, resulting in a small protruding room constructed with red bricks in the centre of the original principal façade.

Little is known about the building materials of the original building. The sandstone exterior was left unplastered while the interior was plastered with clay and was redone with a cement and sand mixture. Some technical detailing can still be seen and contributes to the little knowledge available about the dwelling and also contributes to the data regarding early farm dwellings in the region dating to the first years of the 20th century. Most of the simple gable (triangular section above the ceiling) has been removed or broken off but a small section has remained intact. This indicates that the gable was not constructed with sandstone but with sun-dried bricks of which some have



Figure 28 – Site layout plan of the Meyer Farmstead.

remained on top of the sandstone walling. It may also imply that the gable was a later addition. The bricks used for the gable were laid as a single course four inches wide, rendering the gable rather flimsy. An outstanding element is the presence of a large protruding sandstone window sill in the eastern façade. For such a simple dwelling this sill is quite monumental and indicates some level of sophistication in the masonry. The dwelling reflects no other decorative elements except for this detail. Some effort has been made with the stone window sill. All the lintels were done with timber. No lintels were done with sandstone.

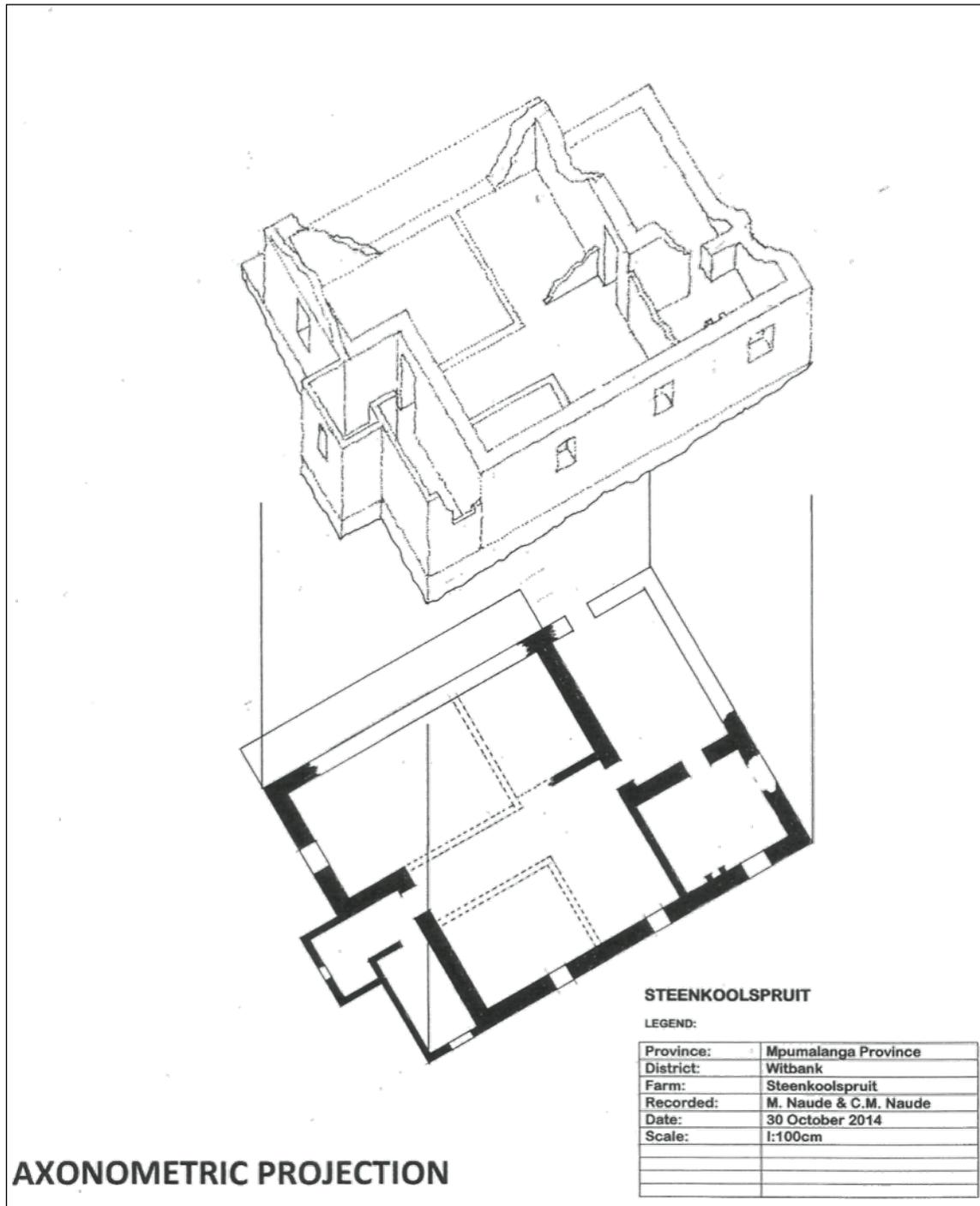


Figure 29 - Axonometric view of the ruin indicating the floor plan layout and condition of the dwelling. Drawing appeared in the recording report of Mauritz Naudé (2014:3).

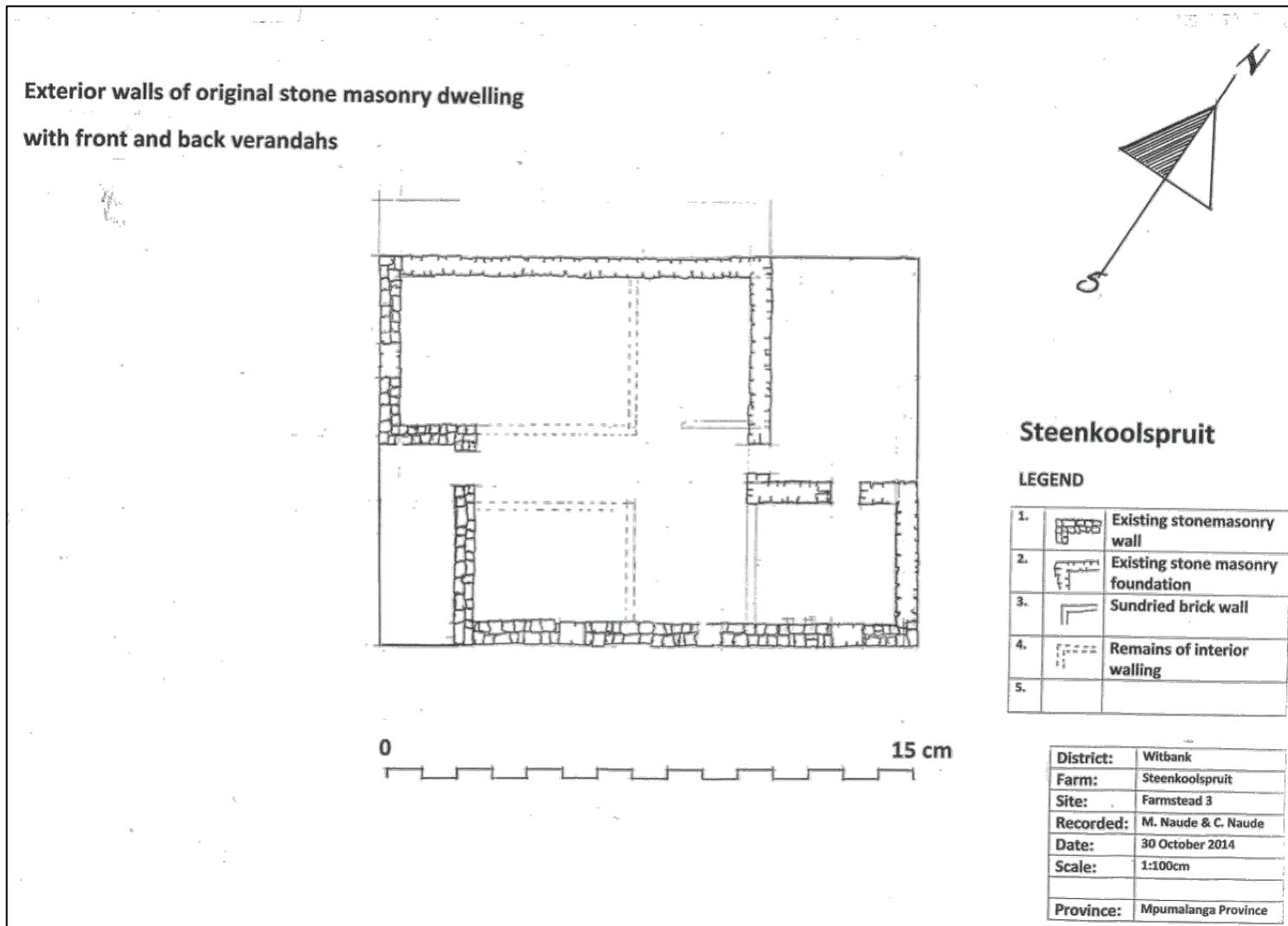


Figure 30 - A floor plan of the original dwelling showing the exterior stone masonry walls. As most of the sundried brick walls have disappeared, the interior division of spaces is hypothetical. Drawing appeared in the recording report of Mauritz Naudé (2014:4).

6.1.1.2 Elevations

6.1.1.2.1. North-Western elevation

The building is not orientated according to the exact north-south axis but is set slightly off this axis. Almost the entire façade has been demolished and no evidence is available in the structure to reconstruct the elevation.



Figure 31 - North-western elevation (Photograph by Mauritz Naudé).

6.1.1.2.2 South-Eastern elevation

The façade seems to have been the principal façade of the dwelling and faces downhill towards the Steenkoolspruit valley and flood plain. The most significant feature is the original protruding sandstone gable and the red brick toilet which is a later addition. This façade was originally defined by the sandstone gable and a small verandah to its right. The verandah was later closed with walls (red brick and plastered section in the picture) to create a bathroom and toilet.

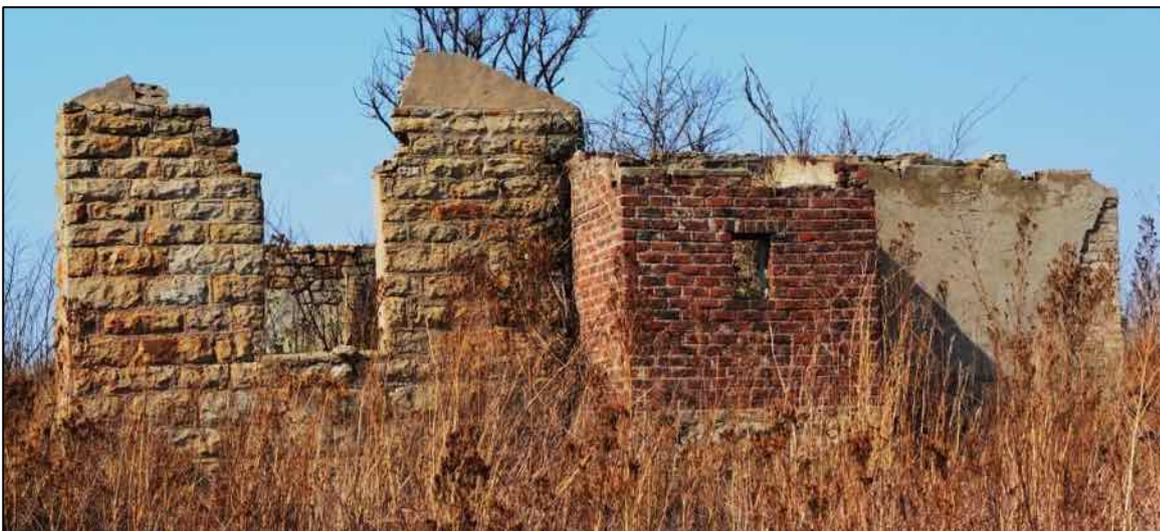


Figure 32 - South-eastern facade with gable and more recent toilet and bathroom additions done in red bricks (Photograph by Mauritz Naudé).



Figure 33 - This used to be the principal facade with gable and stoep where the red brick and plastered room were added to form the bathroom and toilet (Photograph by Mauritz Naudé).

6.1.1.2.3 Southern elevation

This elevation has remained almost completely intact and contains most of the remaining windows. It contains no entrances. The entire wall section consists of sandstone walling up to ceiling height.



Figure 34 – The dwelling's south-eastern elevation and façade is the only facade that has remained reasonably intact (Photograph by Mauritz Naudé).

6.1.1.2.4 North-western elevation

The entire north-western elevation has become a ruin without any remaining walls. No photographic recording could be done. The best evidence of what this elevation consists of is reflected in the axonometric drawing. It is assumed that this elevation also boasted a verandah and formed the back of the dwelling. The verandah was later closed-off with walls and became a dining room.

6.1.1.3 Building elements

6.1.1.3.1 Foundations

The original core section of the building was constructed with sandstone and the stone rises directly from the foundation upwards to ceiling height. No excavations were done to expose the foundations of the interior walls and the sundried bricks of these walls have melted to form a wide projecting feature as the only remains of the original walling.



Figure 35 - Plinth where the original stone foundation of the stoep was used as a base for a later addition (Photograph by Mauritz Naudé).

6.1.1.3.2 Floors

According to the depth of the floor cavities, it is assumed that the dwelling had a timber floor structure but all evidence of the timber have been removed and destroyed. No ventilation openings were identified in the exterior walling.

The stoeps had concrete floors with thin screeds on top and these have remained intact. The stoeps

seemed to have been incorporated into the interior of the dwelling when they were closed-in by walls to become rooms.

6.1.1.3.3 Stairs and staircases

The dwelling is set on a slight slope rising from west to east. This resulted in the gable end of the building and front façade to face south-west. A small stoep used to be located on this side but it was later closed to form new rooms. When the dwelling was erected with this space used as an open stoep it must have had a pedestrian entrance with stairs. These have been altered and included into the floor of more recent addition and extension of the floor plan along this façade. The building has no interior stairs.

6.1.1.3.4 Walls

The exterior walling of the original dwelling was constructed with sandstone and the walls are about 600mm in diameter. The interior walling was constructed with sun-dried bricks of about 200mm in diameter. The stone masonry walling was left unplastered on the exterior while plastered along with the interior. Some sections still have the original mud plaster while other sections were plastered with a sand and cement mixture.

All the later additions were done in brick and they were plastered. The most significant brick addition was added to the front façade of the dwelling and left unplastered. All the walls are badly damaged as the building has no roof to protect them.



Figure 36 - Part of the exterior walling with clay bricks forming part of a later addition (Photograph by Mauritz Naudé).



Figure 37 - Projecting dressed sandstone window sill neatly incorporated as part of the exterior walling (Photograph by Mauritz Naudé).



Figure 38 - Exposed stone masonry walling of the gable (Photograph by Mauritz Naudé).



Figure 39 - Painted cement and sand plastering along with the interior of the original exterior walls (Photograph by Mauritz Naudé).



Figure 40 - Neatly constructed dressed sandstone corner on the southeastern corner of the original core building (Photograph by Mauritz Naudé).



Figure 41 – Exposed sun-dried bricks after the plastering had washed off on the addition along the south-western façade of the dwelling (Photograph by Mauritz Naudé).



Figure 42 – Sun-dried clay bricks on top of the sandstone wall define the triangle of the remains of the gable (Photograph by Mauritz Naudé).

6.1.1.3.5 Fireplaces and chimneys

No formal hearth was identified in the floor plan but the remains of a chimney sheath defining the exit of a chimney for a coal stove or slow combustion stove was identified in what could have been the kitchen.



Figure 43 - Remains of plastered brick chimney fluting (see red arrow) guiding the round metal chimney pipe of a coal stove (Photograph by Mauritz Naudé).

6.1.1.3.6 Roofs

The entire roof has been removed and no evidence of the roof structure or roof covering has remained on the structure or the site. It is only assumed that the dwelling had a timber roof structure with a corrugated iron sheet covering.

6.1.1.3.7 Ceilings

No remnants of any ceilings, ceiling boarding or supporting structure are left in the dwelling

6.1.1.3.8 Doors

No doors have been left in the building and all the door frames have been removed. A single door frame has been left intact.



Figure 44 - Remains of a single door frame (Photograph by Mauritz Naudé).



Figure 45 - Remains of a door where the frame has been removed (Photograph by Mauritz Naudé).

6.1.1.3.9 Windows

The windows from the dwelling had timber frames and timber lintels. Some have remained intact while others have disappeared after being exposed to the sun and rain. It is assumed that some timber frame windows were replaced with steel frames and these were also removed.



Figure 46 - Window with lintel and a short section of the top part of the architrave intact (Photograph by Mauritz Naudé).



Figure 47 - Window with lintel and architrave intact (Photograph by Mauritz Naudé).



Figure 48 – Two views of a window from the dwelling. The image on the left shows the timber lintel still intact, whereas the image on the right illustrates the solid sandstone window sill (Photograph by Mauritz Naudé).



Figure 49 - Small window with remnants of the timber lintel at the top (Photograph by Mauritz Naudé).



Figure 50 - Well-prepared sun-dried clay bricks exposed after the plastered was broken and had fallen off. These sun-dried clay bricks were used on this more recent addition to the dwelling (Photograph by Mauritz Naudé).

6.1.1.3.10 Toilets, bathtubs and washbasins

No evidence of any toilets, bathtubs or hand basins was found in the structure

6.1.1.3.11 Light fittings

No evidence of any light fittings was found inside the structure.

6.1.1.3.12 Cupboards and shelving

No evidence of any cupboards and shelving was found inside the structure.

6.1.1.3.13 Other elements

All detailing and special elements have been lost as the dwelling has been stripped of its roof, roof structure, windows, doors, ceilings, the entire floor structure and all fixtures and fittings.

6.1.2 Buildings and Structures associated with the Farm Dwelling

6.1.2.1 Garage

Coordinates: S 26.087206
E 29.239418

A garage for two standard motorized vehicles is located here. The building is the size of a double garage for standard vehicles. It was constructed with red stock bricks but never plastered. The most northern corner was constructed with dressed sandstone blocks using simple coursework. The entire roof has been removed.

This structure is located approximately 18m north by north-west of the farm dwelling.



Figure 51 – Exterior wall of the garage indicating the various building materials that were used for the construction (Photograph by Mauritz Naudé).

6.1.2.2 Small Coal Shack

Coordinates: S 26.087168
E 29.239252

The real function of this structure remains obscured. It is a unique little building with plastered brick

walls and a flat roof (now removed) without any windows and a single door. The general appearance and lack of windows suggest that it may have functioned as a coal shack. No indication of the roof type has been left intact.

This structure is located approximately 33m north-west of the farm dwelling.



Figure 52 – It is assumed that this structure was used for coal storage (Image by Mauritz Naudé).

6.1.2.3 Livestock Enclosure

Coordinates: S 26.087030
E 29.239050

The remains of a sandstone livestock enclosure was identified here. This structure was constructed in a relatively crude manner with dry stacked walling.

One of the special features of the kraal is the way it was located and the choice of setting where it was built. One elevation of the kraal is set directly along a cut in the sandstone outcrop. This 'saved' the builder to construct four walls but allowed the kraal to be set slightly below the terraced landscape serving as some protection against cold winter winds at night. Almost the entire floor of the small kraal consist of a flat bed of solid sandstone. The structure is located approximately 53m north-west of the farm dwelling.



Figure 53 – The remains of a livestock enclosure identified some distance from the farm dwelling. The structure is set along the vertical slope of a stone outcrop (Photograph by Mauritz Naudé).



Figure 54 – Another view of the remains of a livestock enclosure identified some distance from the farm dwelling (Photograph by Mauritz Naudé).

6.2 Du Toit Farmstead

6.2.1 Farm Dwelling

6.2.1.1 General description

The building is a small sandstone farm dwelling set on a slight slope with its principle façade facing eastwards, towards the Steenkoolspruit (downhill). In comparison to other sandstone farm dwellings in the region this dwelling is relatively small in scale. The building still had a roof at the time of the site assessments and recording activities. It also had all its windows but the doors have been removed. The core and original part of the dwelling was constructed with neatly dressed sandstone blocks. The sandstone is abundant in the region and could have been quarried from any of the sandstone outcrops on the farm and the banks of the Steenkoolspruit. The later extensions to the western elevation were also done in sandstone and some effort was made to blend the stone masonry with the original stone coursing. The interior was plastered with clay plaster and have remained intact.

The floor plan does not resemble the typical vernacular character of farm dwellings except for the presence of a core section with later extensions and additions. The original exterior is defined by solid sandstone walling constructed with sand and lime mortar and the interior walls were done in plastered brick. The walls were plastered with clay and were covered with wal paper which was later stripped and the clay exposed. Some effort was made to do the later additions in sympathy with the original dwelling and the walling was executed in sandstone – but of lesser quality craftsmanship than the original. A unique aspect of the dwelling is the simple gable that was added to the front façade which is completely out of style with the rest of the sandstone structure. The original verandah was constructed with timber posts that later disintegrated and were replaced with plastered brick columns and low stoep walling. The building may date from the 19th century and may have been destroyed during the Anglo Boer War. The original gable may have been destroyed in the process and was reconstructed after the war.

The dwelling has a hipped roof with a projecting ‘*stoepkamer*’ gable protruding downhill towards the east. The floor plan indicates that the gable side of the building - usually considered the more public façade and main entrance - was located downhill and the dwelling was originally entered from this side.



Figure 55 – Site layout plan for the Du Toit Farmstead.

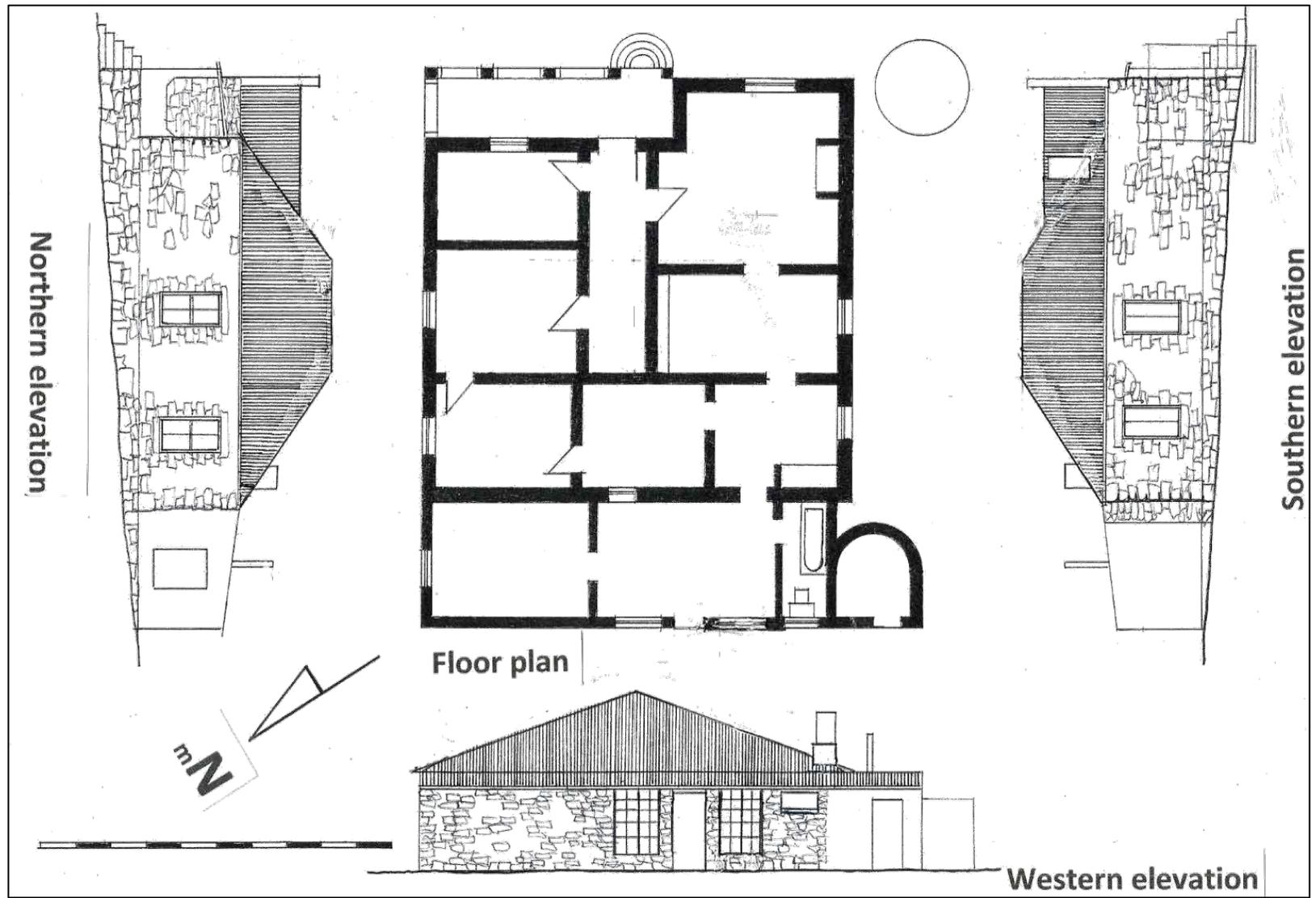


Figure 56 - A floor plan of the original dwelling with the northern, southern and western elevation. It appeared in the recording report of Mauritz Naudé (2016:3).

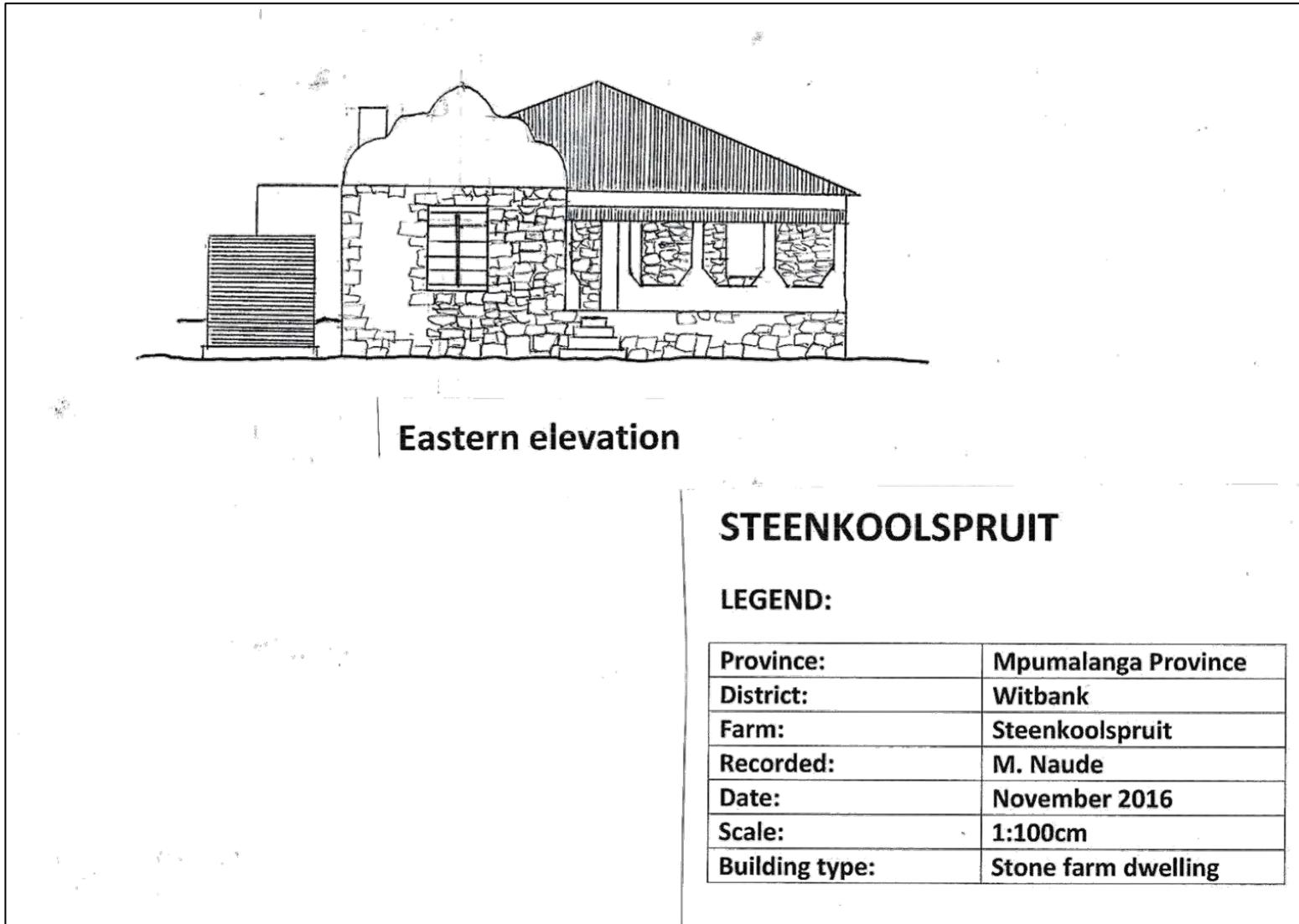


Figure 57 – The eastern elevation of the farm dwelling. This drawing appeared in the recording report of Mauritz Naudé (2016:4).

6.2.1.2 Elevations

6.2.1.2.1 Northern Elevation

The building is not orientated according to the exact north-south axis but is set slightly off this axis. This elevation is also a side elevation and indicates the slope at which the building is set.

In the photograph depicted below, the original core dwelling is clearly indicated with the lean-to located at the side.

This elevation only contains two windows in the core of the structure and a single steel frame window in the lean-to.



Figure 58 - Northern Elevation (Photograph by Mauritz Naudé).

6.2.1.2.2 Eastern Elevation

This seems to have been the principal facade of the dwelling and faces downhill towards the Steenkoolspruit valley and flood plain. The most significant feature is the original protruding sandstone 'stoepkamer' type room with simple gable and the small veranda.

The veranda originally had a timber support structure for the roof which was later replaced with plastered brick columns. This may have been altered during the 1920s or 1930s.

A significant feature of this elevation is the large corrugated iron water reservoir.



Figure 59 - Eastern Elevation (Photographs by Mauritz Naudé).

6.2.1.2.3 Southern elevation

This elevation contains no entrances. The entire elevation was constructed with sandstone. The only extension to this elevation is a small room. Where the 'donkie' (the hot water tank and hearth) was located. Two steel frame windows occur in this elevation.



Figure 60 - Southern Elevation (Photographs by Mauritz Naudé).

6.2.1.2.4 Western elevation

The entire western elevation has been extended with the lean-to section. This lean-to was first added as a back stoep and veranda and the space created was closed-off in sections over time. A central part of the stoep was left as a veranda while an additional bedroom was added on the northern side and a bathroom and toilet were added on the southern side. The veranda was later closed-off with walls and became a dining room.

The coal cum boiler room or 'donkie' room was added at the end of the extension next to the bathroom serving the kitchen and bathroom with hot water.



Figure 61 - Western Elevation (Photographs by Mauritz Naudé).

6.2.1.3 Building elements

6.2.1.3.1 Foundations

The original core section of the building was constructed with sandstone and the stone rises directly from the foundation upwards to ceiling height. No excavations were done during the investigation to expose the foundations of the exterior or interior walls. The stone base on which the structure is set is best exposed at the north-eastern and south-eastern corners. In the north-eastern corner, the variation of the building materials is best exposed, indicating that the base of the dwelling is sandstone while the walling of the stoep was executed in plastered brick.



Figure 62 - View of the original stone foundation (Photograph by Mauritz Naudé).



Figure 63 - Exposed sandstone base of the front veranda indicating the difference between the sandstone base of the structure and the more recent introduction of baked bricks for the low veranda wall and supporting columns (Photograph by Mauritz Naudé).

6.2.1.3.2 Floors

No evidence could be found of any air vents in the walls serving a cavity timber floor. This said, although no evidence could be found of a cavity timber floor, it is assumed that the dwelling originally had such a cavity floor.

The current floor is a concrete slab covered with linoleum and all floors are completed with timber skirting boards. The evidence of rising damp in the lower part of the interior walls must be the result of the introduction of the concrete floor slabs without damp coursing in the exterior walls. The concrete slabs allowed rising damp only one way of escape – through the mortar joints of the stone masonry walls



Figure 64 - The floor of the front room facing the front stoep - note the rising damp problem just above the skirtings (Photograph by Mauritz Naudé).



Figure 65 - Floor of the lounge with wooden skirting boards (Photograph by Mauritz Naudé).

6.2.1.3.3 Stairs

The dwelling is set on a slight slope rising from east to west. This resulted in the front façade facing east – downhill - towards the Steenkoolspruit River. A small stoep is located on this site and also serves as the entrance to the front door.

The stairs leading to the stoep level are unique as they do not form part of the foundation either part of the stoep floor. They were constructed with large semi-circular granite slab-shaped blocks. Four layers of granite define the height of the staircase – rising into a staircase with each layer smaller than the original.

These blocks were not cemented but each is large and heavy enough to support its weight and to retain its position once placed.



Figure 66 - Stacked granite blocks shaped to serve as stairs towards the front stoep (Photograph by Mauritz Naudé).

6.2.1.3.4 Walls

The building consists of a core structure with extensions along the western elevation. The core was constructed with dressed sandstone and the walls are about 400 to 450mm in diameter. Some effort was made to construct the extensions with sandstone and to blend the stone masonry of the recent additions with the original sandstone of the core structure.

The dwelling also has a front gable with projecting parapet constructed with a plastered brick in a crude and unrefined fashion. The building may have had a gable previously and it may have been hit by lightning that toppled the parapet top part. The building may have burnt down resulting in severe damage to the top layers of the sandstone. The entire northern elevation has been retouched and the top four to five layers of coursework has been rebuilt. The stone coursing has been done in a different style than the original stonemasonry further down.



Figure 67 - Front facade with gable room executed in dressed sandstone with the parapet front gable done in plastered brick (Photograph by Mauritz Naudé).



Figure 68 - View on the front veranda (east elevation) with whitewashed exterior sandstone walling (Photograph by Mauritz Naudé).

A significant feature of the building is that the exteriors of the front stoep cum veranda and the back stoep were whitewashed. Only the sections covered by a lean-to roof were whitewashed and the sandstone of the side elevations was left bare and unpainted.



Figure 69 - Whitewashed sandstone wall at the back of the dwelling where a veranda was later added (Photograph by Mauritz Naudé).



Figure 70 - In-fill row of bricks directly underneath the roof, suggests some alterations to the walling to accommodate the roof (Photograph by Mauritz Naudé).

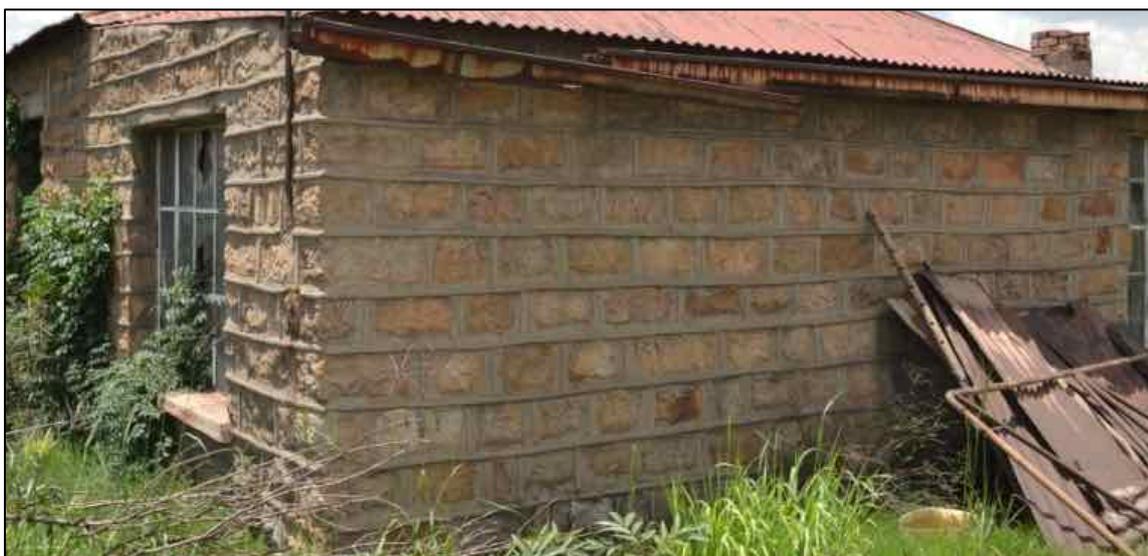


Figure 71 - One way to distinguish between the sandstone masonry of the core dwelling and that of the more recent additions is the prominent pointing of the more recent walls.

The interior walling was constructed with sun-dried bricks of about 200mm in diameter. The stone masonry walling was left unplastered on the exterior while plastered along with the interior. Some sections still have the original mud plaster while other sections were plastered with a sand and cement mixture.



Figure 72 - Rising damp in the room adjacent to the front veranda (Image by Mauritz Naudé).



Figure 73 - The columns of the front veranda were replaced with plastered brick columns while the foundation of the stoep is the same as the rest of the core structure (Photograph by Mauritz Naudé).



Figure 74 - The back veranda was eventually closed in to accommodate a bathroom and an additional bedroom. These walls were constructed with plastered brick walling (Photograph by Mauritz Naudé).



Figure 75 - Interior of the lounge with clay plastered walling (Photograph by Mauritz Naudé).



Figure 76 - Careful effort to blend the more recent sandstone extension (right) with the original sandstone walling (left) (Photograph by Mauritz Naudé).



Figure 77- The most recent addition was this boiler room. The small extension was also constructed with stone but applied in a different style. The new room was demarcated but the pointing was applied to blend with the pointing of an earlier addition (Photograph by Mauritz Naudé).

6.2.1.3.5 Fireplaces and chimneys

Three chimneys are visible above the roof level. The fireplace in the lounge is best defined in the building. The mantelpiece and fireplace front cover has been ripped from the wall and no evidence of what it looked like, exists. Its chimney is a plastered brick structure – similar to the parapet gable wall. The second fireplace is located in the kitchen and consists of a small floor area that is raised about 100mm from the kitchen floor with a half brick low wall directly next to the kitchen entrance from the backdoor. This area must have contained a coal stove with a cylindrical galvanized sheet iron chimney leading towards a large funnel-shaped exit where the chimney entered the ceiling cavity. The chimney was constructed with plastered brick but has deteriorated extensively.



Figure 78 - Simple plastered brick chimney leading from the fireplace in the lounge (Photograph by Mauritz Naudé).



Figure 79 - General position of the three chimneys and chimney pipes (Image by Mauritz Naudé).

A third chimney occurs at the most south-western corner of the building - penetrating through the roof of the boiler room – a small room that was entered only from outside. The chimney pipe projects about 1.5m above the roof.



Figure 80 - Sheet iron chimney pipe leading from the boiler room (Photograph by Mauritz Naudé).



Figure 81 - Remains of the small alcove created for the coal stove in the kitchen. The stove has been removed, but the funnel leading the chimney out of the kitchen is still in situ (Photograph by Mauritz Naudé).



Figure 82 - Protruding fireplace in the lounge. The mantelpiece has been removed (Photograph by Mauritz Naudé).

6.2.1.3.6 Roofs

Both the original core building and the extensions have roofs of corrugated iron sheeting. The roofs have been painted red.



Figure 83 - The general condition of the corrugated sheet iron roof (Image by Mauritz Naudé).



Figure 84 - The roof of the back veranda has no ceiling and transparent glass-fibre sheeting was installed to allow light into the closed area (Photograph by Mauritz Naudé).



Figure 85 - The corrugated iron sheets were loosely mounted on a simple timber frame for the front veranda (Photograph by Mauritz Naudé).



Figure 86 - Side elevation of the front veranda roof indicating its 'lean-to' character (Photograph by Mauritz Naudé).

6.2.1.3.7 Ceilings

It is suspected that the dwelling originally had no ceilings and the current ceilings are only recent additions. All the rooms have gypsum board ceilings mounted to the roof trusses with strips of pine.

The ceilings were painted with high gloss enamel paint which is coming loose and peeling due to rainwater dripping through the roof.



Figure 87 - Gypsum boarding with pine planking and sealed with moulded cornices (Photograph by Mauritz Naudé).



Figure 88 - Gypsum boarding mounted in the passage, with pine planking in the foyer (Photograph by Mauritz Naudé).



Figure 89 - Gypsum boarding mounted with pine planking in the kitchen (Photographs by Mauritz Naudé).



Figure 90 - Gypsum boarding with pine planking in one of the bedrooms (Photograph by Mauritz Naudé).

6.2.1.3.8 Doors

All the doors have been removed from the structure but the frames have remained intact. The interior doorposts of the original part of the dwelling were clad with wood and framed with architraves.

It is suspected that the mantelpiece of the fireplace in the lounge also had a timber frame similar to the architraves. The back door of the western extension had a standard commercial steel frame but the door has been removed.



Figure 91 - All the interior entrances have timber door frames with simple molded architraves. All the doors have been removed (Photograph by Mauritz Naudé).



Figure 92 - The back door leading from the closed-back veranda has a standard steel frame - the door has been removed (Photograph by Mauritz Naudé).

6.2.1.3.9 Windows

The original windows and frames were made of wood. Two of these have remained intact in the core part of the dwelling; a small hinged window on the verandah at the back and a sash window on the front veranda. Some timber frame windows were replaced with steel frames and have remained intact.



Figure 93 - Steel frame window in the pantry cum breakfast room (Photograph by Mauritz Naudé).



Figure 94 - One of the original wooden frame sash windows - room facing the eastern elevation with the window on the stoeep (Photograph by Mauritz Naudé).



Figure 95 - Fifteen pane steel frame window in the stoepkamer along the western elevation (Photograph by Mauritz Naudé).



Figure 96 - Steel frame window in the lounge, facing east (Photograph by Mauritz Naudé).

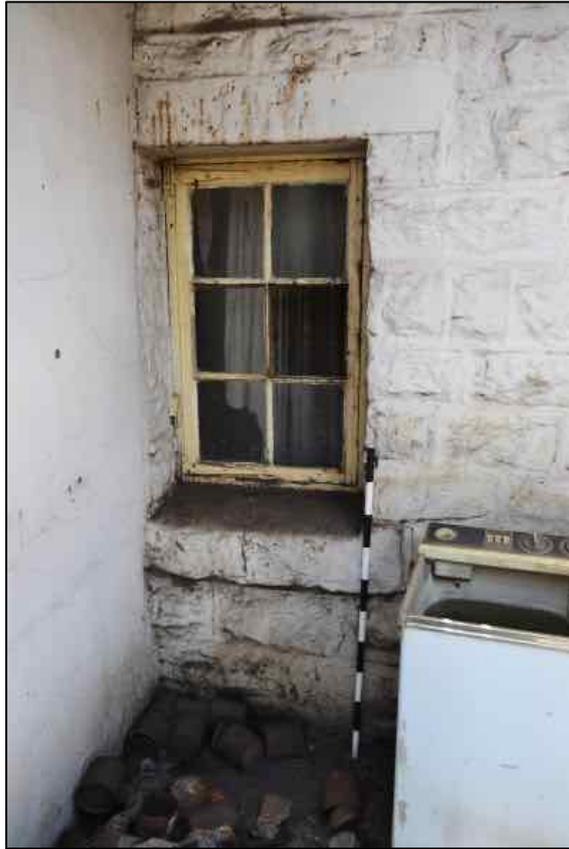


Figure 97 - One of the original wooden frame windows that remained intact at the back veranda (Photograph by Mauritz Naudé).



Figure 98 - Steel frame window in the southern elevation (Photograph by Mauritz Naudé).

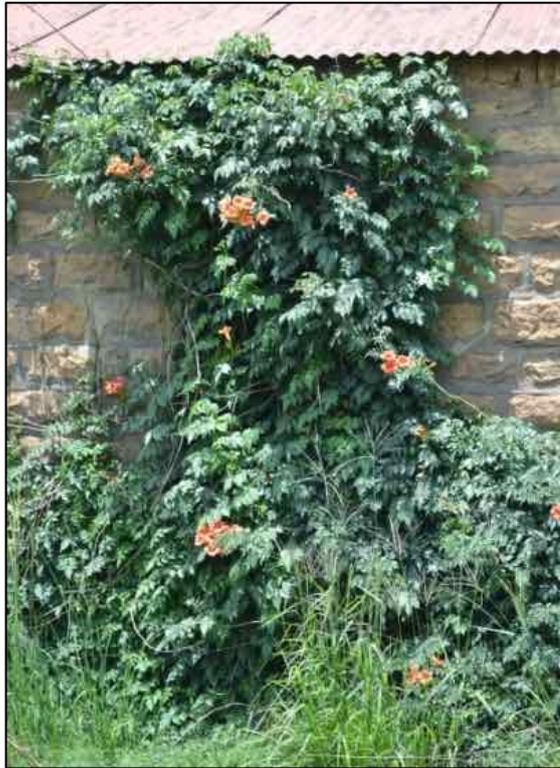


Figure 99 - Steel frame window is hidden behind a creeper in the northern elevation (Photograph by Mauritz Naudé).

6.2.1.3.10 Toilets, bathtubs and washbasins

The dwelling originally did not have a bathroom or toilet and this facility was later added when a small space was closed-off under the back verandah to fulfil this need. A bath tub and toilet were installed in the same room.



Figure 100 - Bathtub - now covered in black coal dust (Photograph by Mauritz Naudé).



Figure 101 - Porcelain toilet mounted along the exterior wall (Photograph by Mauritz Naudé).

6.2.1.3.11 Light fittings

No evidence of any light fittings was found inside the structure.

6.2.1.3.12 Cupboards and shelving

No cupboards occur in the building. The only evidence of shelving and racking is located in the room adjacent to the kitchen and it is assumed that this room was used as a breakfast room cum pantry or as a dining room.



Figure 102 - Shelving and racking in the pantry. This room may have been used as a breakfast room (Photograph by Mauritz Naudé).

6.2.1.3.13 Other elements

Gutters were mounted along the roof of the western extension. No downpipes were installed. A gutter was also installed along the southern elevation and the water drains into a large circular corrugated iron water reservoir.



Figure 103 - Some effort was made to mount gutters but without downpipes. Water was directed to a single detached corrugated iron water reservoir (Photograph by Mauritz Naudé).



Figure 104 - Box gutter along western elevation and extension (Photograph by Mauritz Naudé).



Figure 105 - Down piping was discarded and water from the gutter flowed directly into a water reservoir (Photograph by Mauritz Naudé).



Figure 106 - View of the water reservoir (Photograph by Mauritz Naudé).

6.2.2 Buildings and Structures associated with the Farm Dwelling

6.2.2.1 Garage

Coordinates: S 26.080109
E 29.232274

A garage is located here. The structure was built with cement bricks and it would have had a corrugated iron roof. At the time of the fieldwork, the roof was missing.

The building is not indicated on any of the available maps and is also not depicted on the 1954 and 1968 aerial photographs. This said, it is mentioned in the inspection report undertaken in 1973 shortly after Henri du Toit's death and which forms part of his estate papers (MHG 6007/73). In this

document the size of the building is given as 180 square feet. The building is certainly not older than 60 years.

This structure is located approximately 6m north of the farm dwelling.



Figure 107 – General view of the garage (Photograph by Mauritz Naudé).

6.2.2.2 Rondavel

Coordinates: S 26.080181
E 29.231973

A brick rondavel was identified near the farm dwelling's back door. No indication of the roof type has been left intact.

The building is not indicated on any of the available maps and is also not mentioned in the inspection report undertaken in 1973 shortly after Henri du Toit's death and which forms part of his estate papers (MHG 6007/73). This latter observation is interesting in that it suggests that the building was only constructed after 1973.

In the first report undertaken in 2012, the building was indicated to be of Low Significance. The building was subsequently destroyed during the construction of a haul road.

This structure is located approximately 21m north-west of the farm dwelling.



Figure 108 – General view of the rondavel. This structure was assessed to be of Low Significance in a previous report and was demolished in c. 2015 (Photograph by Mauritz Naudé).

6.2.2.3 Livestock Enclosure

Coordinates: S 26.079428
E 29.233624

The remains of a sandstone livestock enclosure was identified roughly 140m north-east of the farm dwelling. This structure was constructed with special craftsmanship and great effort was made to ensure that the walls are stable and solid. One of the special features of the livestock enclosure is the way it was located and the choice of setting where it was built. One elevation of the kraal is set directly along a cut in the sandstone outcrop of the river bank. This allowed the builder to save on building four walls but allowed the kraal to be set slightly below the terraced natural landscape serving as some protection against cold winter winds at night.

The structure is not depicted on any of the available maps. However, it is depicted on both the 1954 and 1968 aerial photographs. Furthermore, the characteristics of the building (i.e. the use of large sandstone blocks to construct thick double-row walls as well as the presence of draining holes along one wall) as well as the lack of metal components in the structure (i.e. as a gate) suggest an earlier date for the building. As such it appears to be one of the oldest structures from the entire farmstead and is in all likelihood as old as the farm dwelling itself, namely older than 100 years.

In the Heritage Assessment undertaken in 2012, it was recommended that the livestock enclosure be retained. Unfortunately, the structure may have been demolished a few years ago.



Figure 109 – The remains of a livestock enclosure identified some distance north-east of the farm dwelling. This structure appears to have been demolished (Photograph by Polke Birkholtz).



Figure 110 – Closer view of a section of the eastern wall of the livestock enclosure. Note the well-built drainage hole (Photograph by Polke Birkholtz).

7 IMPACT ASSESSMENT

7.1 Meyer Farmstead

This section was taken from the architectural historical report of the Meyer farmstead undertaken by Mauritz Naudé (2013).

7.1.1 Significance criteria in terms of Section 3(3) of the National Heritage Resources Act.

	Criteria	Significance
1.	<p><i>The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance)</i></p> <p><u>Structure 1 - sandstone dwelling</u>: Sandstone and other stone masonry dwellings are quite common in the region but every dwelling is unique in terms of its floor plan, size, scale and application of stone. The original core section of the dwelling was much smaller than the existing floor plan suggests but only small rooms have been added.</p> <p><u>Structure 2 - garage</u>: The date when the structure was erected is difficult to determine and the structure is of little architectural significance.</p> <p><u>Structure 3 – coal container</u>: as coal has always been a common occurrence in the region it was used for energy needs since early times. It can be collected along the banks of spruits and carried to the farmsteads. It is assumed that this little shack was used for storing coal.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The date of the structure is unknown and the kraal is of little architectural significance. Kraals are usually considered minor structures on farmsteads and this lack of interest is reflected in the published material regarding this structure type. On this site, the kraal is quite a small structure of roughly dressed sandstone but still solid and stable.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p>
2.	<p><i>Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage (Scientific significance).</i></p> <p><u>Structure 1 - sandstone dwelling</u>: Sandstone and other stone masonry dwellings are quite common in the region but this dwelling is unique in terms of its size, scale but not in terms of the application of sandstone.</p> <p><u>Structure 2 - garage</u>: The building is not unique, neither 'rare', as on most contemporary farmsteads garages for the landowners are constructed in this fashion which is quick and easy.</p>	<p>Rating</p> <p>Low</p> <p>Low</p>

	<p><u>Structure 3 – coal container</u>: this a rare structure as coal storage was usually done inside one of the outbuildings and not in a detached building such as this one.</p> <p><u>Structure 4 – sandstone stock kraal</u>: Cattle kraals are usually constructed with dry stacked stonemasonry and dressed stone is not always preferred. On this site, it was constructed with little attention to detail and the stone was only roughly dressed.</p>	<p>Low</p> <p>Low</p>
3.	<p><i>Potential to yield information that will contribute to an understanding of South Africa’s natural or cultural heritage (Research/scientific significance)</i></p> <p><u>Structure 1 - sandstone dwelling</u>: Sandstone dwellings are quite common in the region but every dwelling is unique in terms of its floor plan, size, scale and application of stone. In this case, only the floor plan of the original building has remained.</p> <p><u>Structure 2 - garage</u>: The building has a single unique element: the occurrence of a stonemasonry section serving as a plinth at the lowest end and corner of the structure. It is assumed that this was the part of the structure that needed a proper foundation and this may be the reason why large dressed sandstone blocks were used at this point. This alteration to the standard practice may add value to the pool of knowledge of vernacular architecture in the region.</p> <p><u>Structure 3 – coal container</u>: The occurrence of a coal shack as a detached building from the dwelling is rather unique.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The location and construction of the kraal reflects a particular mindset in terms of local building methods and locating the structure at a particular point in the landscape (along the vertical cliff of a sandstone outcrop).</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p>
4.	<p><i>Importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects (Scientific significance)</i></p> <p><u>Structure 1 - sandstone dwelling</u>: The dwelling reflects a period when the farmers of the region were relatively poor and only could afford to live in small cottage-like dwellings. These dwellings were constructed with sandstone taken directly from the surrounding landscape.</p> <p><u>Structure 2 - garage</u>: The building contains no outstanding characteristics that would make it special in terms of elevating it to a particular ‘class’ of cultural places.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p>

	<p><u>Structure 3 – coal container</u>: the presence of this little container is unique but is not of such architectural significance to be protected and conserved.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The kraal is not an exceptional structure within the architectural typology for the region but does make a contribution to the history of vernacular sandstone kraal architecture in general.</p>	<p>Low</p> <p>Low</p>
5.	<p><i>Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)</i></p> <p><u>Structure 1 - sandstone dwelling</u>: The vernacular architecture of the dwelling can only be described as a cottage or bungalow. It is not a large ‘villa-type’ dwelling and does not reflect the lavishness of some other farm dwellings of a larger scale and size elsewhere in the region. A small section of a gable is still visible but as the building is nothing but a ruin it has no aesthetic elements to enhance the character of the building.</p> <p><u>Structure 2 - garage</u>: The building contains no exceptional aesthetic characteristics.</p> <p><u>Structure 3 – coal container</u>: The building contains no exceptional aesthetic characteristics.</p> <p><u>Structure 4 – kraal</u>: Contains no exceptional aesthetic characteristics and construction details.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p>
6.	<p><i>Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance)</i></p> <p><u>Structure 1 - sandstone dwelling</u>: The execution of the construction with sandstone is common but not exceptional. Stonemasonry dwellings are quite common in the region but every dwelling is unique in terms of its floor plan, size and scale.</p> <p><u>Structure 2 - garage</u>: It is a utilitarian structure with the only exceptional aspect the section of the one wall constructed with sandstone, otherwise it contains no elements of exceptional aesthetic quality.</p> <p><u>Structure 3 – coal container</u>: it contains no elements of exceptional aesthetic quality.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The kraal is evaluated within a ‘kraal-typology’. It contains no elements of exceptional aesthetic quality.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p>

7.	<p><i>Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance)</i></p> <p>Neither the site nor the buildings have any special association with a particular community or cultural group. The only association it may have would relate to the Afrikaner cultural group and its association with vernacular farm architecture of the early 20th century.</p>	<p>Rating</p> <p>Low</p>
8.	<p><i>Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)</i></p> <p>Neither the site nor any of the buildings are associated with a person or group of importance in the history of South Africa.</p>	<p>Rating</p> <p>Low</p>
9.	<p><i>The significance of the site relating to the history of slavery in South Africa.</i></p> <p>Neither the site nor any of the buildings have any relationship to the history of slavery in South Africa.</p>	<p>Rating</p> <p>Low</p>

7.1.2 Significance criteria in terms of historical, artefactual and spatial significance.

As the criteria set out in the National Heritage Resources Act tend to approach heritage from the level of 'national' significance and few heritage sites and features fall within this category, the second set of criteria are used to determine the regional and local significance of heritage sites. Three sub-categories are used to determine this significance:

- (a) Historical significance – this category determines the social context in which a heritage site and resource need to be assessed. These criteria focus on the history of the 'place' in terms of its significance in time and the role they played in a particular community (human context).
- (b) Architectural significance – The objective of this set of criteria is to assess the artefactual significance of the heritage resource, its physical condition and meaning as an 'object'.
- (c) Spatial significance – focuses on the physical context in which the object and place exist and how it contributed to the landscape, the region, the precinct and neighbourhood.

7.1.2.1 Historical significance

	Criteria	Significance
1.	<p><i>Is the site or building associated with a historical person or group?</i></p> <p>Neither the site nor any of the buildings are associated with a historical person or group.</p>	<p>Rating</p> <p>Low</p>
2.	<p><i>Is the site or building associated with a historical event?</i></p> <p>The site is not associated with a historical event.</p>	<p>Rating</p> <p>Low</p>
3.	<p><i>Is the site or building associated with a religious, economic, social, political or educational activity?</i></p> <p>The farm is only associated with farming – as economic activity and represents a period when farmers were not wealthy but survived based on their subsistence farming activities.</p>	<p>Rating</p> <p>Low</p>
4.	<p><i>Is the site or building of archaeological significance?</i></p> <p>The architectural historian did not investigate the site to identify Stone Age or Iron Age artefacts as this was done by the appointed archaeologist for the project. The dwelling may be older than 100 years and may have been erected prior to 1913.</p>	<p>Rating</p> <p>Medium</p>
5.	<p><i>Are any of the buildings or structures on the site older than 60 years?</i></p> <p><u>Structure 1 - sandstone dwelling</u>: The dwelling is older than 60 years</p> <p><u>Structure 2 - garage</u>: The garage is not older than 60 years.</p> <p><u>Structure 3 – coal container</u>: Not possible to determine its age as it contains no materials that would indicate age or period.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The kraal may be contemporary to the dwelling and be older than 60 years.</p>	<p>Rating</p> <p>High</p> <p>Low</p> <p>Low</p> <p>High</p>

7.1.2.2 Architectural significance (artefactual significance)

	Criteria	Significance
1.	<p><i>Are any of the buildings or structures an important example of a building type?</i></p> <p><u>Structure 1 - sandstone dwelling</u>: This sandstone dwelling represents the smaller cottage type farm dwellings but has been extended and altered over time to become a larger dwelling with the additions adding interior spaces but not qualitative architectural character. The additions altered the original floor plan and resulted in a unique floor plan and vernacular character.</p> <p><u>Structure 2 - garage</u>: This is a minor building and many of these buildings occur on farmsteads in the region</p> <p><u>Structure 3 – coal container</u>: this is quite an exceptional little building – only because no examples of these have ever been recorded. It remains of cultural-historical significance but not of architectural significance.</p> <p><u>Structure 4 – sandstone stock kraal</u>: cattle kraal is a typical structure and example of simple dry-stacked stone masonry craftsmanship quite common on farms on the Highveld.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>High</p> <p>Medium</p>
2.	<p><i>Is any building an outstanding example of a particular style or period.</i></p> <p>None of the buildings must and can be compared to formal building styles at the time or of any European / international style. They are all executed in the vernacular building tradition which is a regional phenomenon. It is within this paradigm and building tradition that they should be evaluated and assessed.</p> <p><u>Structure 1 - sandstone dwelling</u>: This is not one of the outstanding examples of sandstone architecture in the region as the masonry work reflects no exceptional ornamental or decorative work and also does not demonstrate examples of exceptional problem-solving. Sandstone and other stone masonry dwellings are quite common in the region but this dwelling is unique in terms of its floor plan, size and scale.</p> <p><u>Structure 2 - garage</u>: The building represents no style or period.</p> <p><u>Structure 3 – coal container</u>: The building represents no style or period.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The building represents a period when sandstone masonry was still practised as a proper craft. This craft is no longer practised for the construction of fine stone-built cattle kraals and has become an extinct aspect of the farming engineering in the region</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>Medium</p>

3.	<p><i>Do any of the buildings contain fine architectural details and reflect exceptional craftsmanship?</i></p> <p><u>Structure 1 sandstone dwelling</u>: The building contains and reflects the most architectural detailing on the site. However, these details are crude and all of the fixtures and fittings in the building have been removed.</p> <p>The building contains details but they tend to be unrefined such as the construction of the window sills, the lack of attention to quoining at the corners, around windows and doors and the manner in which the front gable has been executed.</p> <p><u>Structure 2 - garage</u>: The garage is a simple rectangular structure constructed with stone and bricks but without a roof (2013).</p> <p><u>Structure 3 – coal container</u>: It contains no elements of exceptional craftsmanship.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The kraal walls were constructed with dry-stacking of sandstone. Stone was selected on site and roughly chipped prior to construction. Construction commenced directly on the surface without foundations and the walls are not very stable.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p>
4.	<p><i>Are any of the buildings an example of an industrial, engineering or technological development.</i></p> <p>None of the buildings reflects exceptional engineering characteristics in commercial terms but the stone masonry of the various buildings reflect the general craftsmanship characteristics of vernacular building methods of the region.</p> <p>The dwelling is the only structure with some standard of vernacular masonry work. It remains the standard method common in the region (the use of dressed sandstone) but the work was not executed in such monumental or crafty manner that the building must be retained.</p>	<p>Rating</p> <p>Low</p>
5.	<p><i>What is the state of the architectural and structural integrity of the building?</i></p> <p><u>Structure 1 - sandstone dwelling</u>: Both the architectural and structural integrity of the building has seriously deteriorated. The building has been altered so many times that the original floor plan of the building is difficult to reconstruct. The entire roof has disappeared and the walls have deteriorated to the extent that it cannot be reversed.</p>	<p>Rating</p> <p>Low</p> <p>Low</p>

	<p><u>Structure 2 - garage</u>: The structural integrity is good, though the entire roof structure was removed exposing the walls.</p> <p><u>Structure 3 – coal container</u>: The structural integrity of the building is bad.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The structural integrity of the kraal is fair as it is a simple structure and it was constructed as an open structure with a roughly rectangular floor plan without any elaborate construction and structural detailing.</p>	<p>Low</p> <p>Low</p>
6.	<p><i>Is the building's current and future use in sympathy with its original use (for which the building was designed)?</i></p> <p><u>Structure 1 - sandstone dwelling</u>: The structure is empty and has been stripped of most of its essential building detailing leaving it as a ruin that cannot be restored.</p> <p><u>Structure 2 - garage</u>: The building has no roof and is not used.</p> <p><u>Structure 3 – coal container</u>: The building is a ruin without a roof and door.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The structure is not used anymore, but may be restored for the same use as stock kraal if necessary.</p>	<p>Rating</p> <p>Low</p> <p>Low</p> <p>Low</p> <p>Low</p>
7.	<p><i>Were the alterations done in sympathy with the original design?</i></p> <p><u>Structure 1- sandstone dwelling</u>: The dwelling has been altered extensively and both sandstone and brick walling were added to the original core structure. Some effort was made to do the alterations in sympathy with the original structure but the difference in style, materials and craftsmanship is obvious and clearly distinguishable.</p> <p><u>Structure 2 - garage</u>: The building has not been extended and it remains difficult to interpret the reason for the use of two building materials: sandstone masonry and unplastered red stock bricks.</p> <p><u>Structure 3 – coal container</u>: No alterations were made to the building.</p> <p><u>Structure 4 – sandstone stock kraal</u>: The kraal is still in its original form and shape.</p>	<p>Rating</p> <p>Not in sympathy</p> <p>Sympathetic</p> <p>NA</p> <p>NA</p>
8.	<p><i>Were the additions and extensions done in sympathy with the original design?</i></p>	<p>Rating</p>

	<u>Structure 1 - sandstone dwelling</u> : The dwelling was extended and added-onto several times with different degrees of success.	Low
	<u>Structure 2 - garage</u> : The building has not been extended.	Low
	<u>Structure 3 – coal container</u> : The building has not been extended	Low
	<u>Structure 4 – sandstone stock kraal</u> : The kraal is still in its original form and shape.	Low
9.	<i>Are any of the buildings or structures the work of a major architect, engineer or builder?</i>	Rating
	None of the buildings was designed by an architect or engineer as they were built in the vernacular tradition.	Low

7.1.2.3 Spatial significance

Even though each building needs to be evaluated as a single artefact the site still needs to be evaluated in terms of its significance in its geographic area, city, town, village, neighbourhood or precinct. This set of criteria determines the spatial significance

	Criteria	Significance
1.	<i>Can the building or structure be considered a landmark in the town or city?</i>	Rating
	As the site is located on a farm and isolated from any urban centre the buildings have no impact on any town or city. None of the buildings can be considered as a landmark in the landscape and its current location.	Low
2.	<i>Do any of the buildings contribute to the character of the neighbourhood?</i>	Rating
	None of the buildings or structures can be considered of outstanding architectural character in its current setting and state as they have all been ruined to the level where they are equal in terms of artefactual significance.	
	The sandstone dwelling and cattle kraal are the most significant buildings on the site. In this case, the dwelling is in scale and monumentality the most significant structure – though almost completely destroyed.	High

3.	<i>Do any of the buildings contribute to the character of the square or streetscape?</i>	Rating
	The site does not relate to any urban square or streetscape.	Low
4.	<i>Do any of the buildings form part of an important group of buildings?</i>	Rating
	The dwelling and stone cattle kraal are the most significant structures on the site but their importance has been destroyed due to the level of degradation.	Medium

7.2 Du Toit Farmstead

This section was taken from the architectural historical component of the heritage assessment of the Du Toit farmstead undertaken by Polke Birkholtz and Mauritz Naudé (2012).

7.2.1 Significance criteria in terms of Section 3(3) of the National Heritage Resources Act.

	Criteria	Significance
1.	<i>The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance)</i>	Rating
	<u>Building 1 – Farm Dwelling:</u> Sandstone and other stone masonry dwellings are quite common in the region but every dwelling is unique in terms of its floor plan, size scale and application of stone. The original core section of the dwelling was much smaller than the existing floor plan suggests.	Medium
	<u>Building 2 - Garage:</u> The building was constructed in the period 1975 to 1990 and is of little architectural significance.	Low
	<u>Building 3 - Rondavel:</u> Rondavels are considered as minor outbuildings and on this steading, only ruins have remained of the original building.	Low
	<u>Building 4 – Livestock Enclosure:</u> Cattle kraals are usually considered minor structures on farmsteads and this is even reflected in the architectural history of vernacular farm buildings and structures. On this site, the kraal is quite substantial in scale and is a	Medium

	well-constructed structure of dressed sandstone which is still solid and stable.	
2.	<p><i>Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage (Scientific significance).</i></p> <p><u>Building 1 – Farm Dwelling:</u> Sandstone and other stone masonry dwellings are quite common in the region but every this dwelling is unique in terms of its floor plan, size scale and application of stone.</p> <p><u>Building 2 - Garage:</u> The building is not unique neither 'rare', as on most contemporary farmsteads garages for the landowners are constructed in this fashion which is quick and easy.</p> <p><u>Building 3 - Rondavel:</u> The construction of rondavels on farmsteads is an old tradition but is not practised anymore</p> <p><u>Building 4 – Livestock Enclosure:</u> Cattle kraals are usually constructed by dry stacking of stone and not by using dressed stone. On this site, it was constructed with attention to detail and the stone was prepared and dressed to fit their purpose. This cattle kraal is rare as kraals are no longer constructed in the manner.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>High</p>
3.	<p><i>Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage (Research/scientific significance)</i></p> <p><u>Building 1 – Farm Dwelling:</u> Sandstone dwellings are quite common in the region but every dwelling is unique in terms of its floor plan, size scale and application of stone. In this case, the original building has remained and the original clay plaster has remained intact. The scale of the original core building may indicate that this was one of the first buildings erected after the Anglo Boer War (1899-1902).</p> <p><u>Building 2 - Garage:</u> The building has no unique aspects that would expand the general knowledge regarding vernacular architecture.</p> <p><u>Building 3 - Rondavel:</u> The ruin of this building contains no exceptional evidence that would add to the pool of knowledge regarding vernacular architecture.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p>

	<p><u>Building 4 – Livestock Enclosure:</u></p> <p>The location and construction of the cattle kraal reflect a particular mindset in terms of erecting a simple structure such as kraal in such a way that it became an exceptional structure.</p>	Medium
4.	<p><i>Importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects (Scientific significance)</i></p> <p><u>Building 1 – Farm Dwelling:</u></p> <p>The location of the farmstead along the terraced river banks of the Steenkoolspruit is quite unique. The dwelling and the largest part of the farmstead are located well above the 100m flood line and the sandstone used in the construction of the dwelling and some of the later additions come directly from the surrounding landscape.</p> <p><u>Building 2 - Garage:</u></p> <p>The building contains no outstanding characteristics that would make it special in terms of elevating it to a particular class of cultural places.</p> <p><u>Building 3 - Rondavel:</u></p> <p>The occurrence of rondavels on farmsteads is quite common.</p> <p><u>Building 4 – Livestock Enclosure:</u></p> <p>The kraal is an exceptional structure within the architectural typology for the region and contributes to the history of vernacular sandstone architecture north of the Vaal River and the architecture of kraals in particular.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>High</p>
5.	<p><i>Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)</i></p> <p><u>Building 1 – Farm Dwelling:</u></p> <p>The vernacular architecture of the dwelling reflects a small scale sandstone farm dwelling that can only be described as a cottage or bungalow. It is not a large ‘villa-type’ dwelling and does not reflect the lavishness of some other farm dwellings of a larger scale and size. The application of sandstone and the addition of the gable and verandah columns and stoep walling add some folk character to the dwelling. Most of the detailing in the interior has been removed and all woodwork has been partially or completely destroyed by termites.</p> <p><u>Building 2 - Garage:</u></p> <p>The building contains no exceptional aesthetic characteristics.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p>

	<p><u>Building 3 - Rondavel:</u></p> <p>The building contains no outstanding aesthetic characteristics</p> <p>Low</p> <p><u>Building 4 – Livestock Enclosure:</u></p> <p>The kraal reflects good craftsmanship and solid stone masonry. Stone was prepared into neat blocks and laid with care. Quoining was not incidental and the water drains along the lower elevation were properly constructed with stone lintels.</p> <p>Medium</p>	
6.	<p><i>Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance)</i></p> <p><u>Building 1 – Farm Dwelling:</u></p> <p>Sandstone and other stone masonry dwellings are quite common in the region but every dwelling is unique in terms of its floor plan, size scale and application of stone.</p> <p>Medium</p> <p><u>Building 2 - Garage:</u></p> <p>The building does not demonstrate any degree of creativity or technical achievement.</p> <p>Low</p> <p><u>Building 3 - Rondavel:</u></p> <p>The only exceptional aspect of the rondavel is that the walls were constructed with a single row of bricks and the building retained its stability until 2012.</p> <p>Low</p> <p><u>Building 4 – Livestock Enclosure:</u></p> <p>The kraal is evaluated within the kraal-typology and the structure is not compared to more lavish architectural works such as dwellings and stables. The location of the kraal and the quality of the stone masonry of the kraal indicates the level of effort that went into the decision making regarding this structure.</p> <p>High</p>	<p>Rating</p>
7.	<p><i>Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance)</i></p> <p>Neither the site nor the buildings have any special association with a particular community or cultural group. The only association it may have would relate to the Afrikaner cultural group and its association with vernacular farm architecture of the early 20th century.</p>	<p>Rating</p> <p>Low</p>
8.	<p><i>Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)</i></p>	<p>Rating</p>

	Neither the site nor any of the buildings are associated with a person or group of importance in the history of South Africa.	Low
9.	<i>The significance of the site relating to the history of slavery in South Africa.</i> Neither the site nor any of the buildings have any relationship to the history of slavery in South Africa.	Rating Low

7.2.2 Significance criteria in terms of historical, artefactual and spatial significance.

As the criteria set out in the National Heritage Resources Act tend to approach heritage from the level of 'national' significance and few heritage sites and features fall within this category, the second set of criteria are used to determine the regional and local significance of heritage sites. Three sub-categories are used to determine this significance:

- (a) Historical significance – this category determines the social context in which a heritage site and resource need to be assessed. These criteria focus on the history of the 'place' in terms of its significance in time and the role they played in a particular community (human context).
- (b) Architectural significance – The objective of this set of criteria is to assess the artefactual significance of the heritage resource, its physical condition and meaning as an 'object'.
- (c) Spatial significance – focuses on the physical context in which the object and place exist and how it contributed to the landscape, the region, the precinct and neighbourhood.

7.2.2.1 Historical significance

	Criteria	Significance
1.	<i>Is the site or building associated with a historical person or group?</i> Neither the site nor any of the buildings are associated with a historical person or group	Rating Low
2.	<i>Is the site or building associated with a historical event?</i> The site is not associated with a historical event.	Rating Low

3.	<i>Is the site or building associated with a religious, economic social or political or educational activity?</i> The farm is only associated with farming – as economic activity.	Rating Low
4.	<i>Is the site or building of archaeological significance?</i> The site was not surveyed for Stone Age or Iron Age artefacts but the dwelling may be older than 100 years.	Rating Medium
5.	<i>Are any of the buildings or structures on the site older than 60 years?</i> <u>Building 1 – Farm Dwelling:</u> The dwelling is older than 60 years <u>Building 2 - Garage:</u> The garage is not older than 60 years. <u>Building 3 - Rondavel:</u> The rondavel may be older than 60 years but too little of the building has remained intact to determine the age using the structure for dating. <u>Building 4 – Livestock Enclosure:</u> The kraal is older than 60 years.	Rating High Low Low High

7.2.2.2 Architectural significance (artefactual significance)

	Criteria	Significance
1.	<i>Are any of the buildings or structures an important example of a building type?</i> <u>Building 1 – Farm Dwelling:</u> This sandstone dwelling represents the smaller cottage type farm dwellings but has been added onto over time into a larger dwelling with the additions adding interior spaces but not qualitative architectural character. The additions altered the original floor plan and resulted in a unique floor plan and vernacular character.	Rating Medium

	<p><u>Building 2 - Garage:</u> This is a minor building and many of these buildings occur on farmsteads in the region.</p> <p><u>Building 3 - Rondavel:</u> The rondavel typology is common on farmsteads in the region but this is a poor example and is not structurally sound.</p> <p><u>Building 4 – Livestock Enclosure:</u> The cattle kraal is an exceptional structure and example of good craftsmanship which is not often associated with cattle kraals.</p>	<p>Low</p> <p>Low</p> <p>High</p>
2.	<p><i>Is any of the buildings an outstanding example of a particular style or period.</i></p> <p>None of the buildings must be and can be compared to formal building styles at the time or of any European or international style. They are all executed in the vernacular building tradition which is regionally localized. It is within this paradigm and building tradition that they should be evaluated and assessed.</p> <p><u>Building 1 – Farm Dwelling:</u> This is not one of the outstanding examples of sandstone architecture in the region as the masonry work reflects no exceptional ornamental or decorative work and also does not contain exceptional problem-solving examples. Sandstone and other stone masonry dwellings are quite common in the region but this dwelling is unique in terms of its floor plan, size scale and application of stone.</p> <p><u>Building 2 – Garage:</u> The building represents no style or period.</p> <p><u>Building 3 – Rondavel:</u> The building represents no style or period.</p> <p><u>Building 4 – Livestock Enclosure:</u> The building represents a period when sandstone masonry was still practised as a proper craft. This craft is no longer practised for the construction of fine stone-built cattle kraals and has become an extinct aspect of the farming engineering in the region.</p>	<p>Rating</p> <p>Medium</p> <p>Low</p> <p>Low</p> <p>High</p>
3.	<p><i>Do any of the buildings contain fine architectural details and reflect exceptional craftsmanship?</i></p>	<p>Rating</p>

	<p><u>Building 1 – Farm Dwelling:</u></p> <p>This is the building with the most architectural detailing on the site. However, these details are crude and many of the fixtures and fittings have been removed. Only one or two original windows have remained intact while the others have been replaced with steel frame products.</p> <p>The building contains details but they tend to be unrefined such as the handling of the sandstone stairs in front of the main entrance, the lack of attention to quoining at the corners, around windows and doors and the manner in which the front gable has been executed.</p> <p><u>Building 2 – Garage:</u></p> <p>The garage is a simple rectangular structure constructed with cement blocks and without a roof (2012).</p> <p><u>Building 3 – Rondavel:</u></p> <p>The rondavel is a simple circular structure without any exceptional detailing.</p> <p><u>Building 4 – Livestock Enclosure:</u></p> <p>The kraal walls were constructed applying the double-row-method with filling in between. Stone was selected on-site and roughly chipped into square cubes prior to construction. Construction commenced directly on the surface without foundations and the walls have retained their stability over time reflecting the quality of the masonry work.</p>	<p>Medium</p> <p>Low</p> <p>Low</p> <p>High</p>
4.	<p><i>Are any of the buildings an example of an industrial, engineering or technological development.</i></p> <p>The kraal is the only structure with some exceptional folk or vernacular engineering work reflected in the construction and the way the stones were prepared and the masonry was executed.</p>	<p>Rating</p> <p>Medium</p>
5.	<p><i>What is the state of the architectural and structural integrity of the building?</i></p> <p><u>Building 1 – Farm Dwelling:</u></p> <p>The structural integrity of the building has seriously deteriorated and the woodwork has been infested by termites. The building has been altered so many times that the original floor plan of the building is difficult to reconstruct.</p> <p><u>Building 2 – Garage:</u></p> <p>The structural integrity is bad and it seems as if the building was only partially completed when work stopped and the residents left the farm.</p>	<p>Rating</p> <p>Low</p> <p>Low</p>

	<p><u>Building 3 – Rondavel:</u> The structural integrity of the building is bad.</p> <p><u>Building 4 – Livestock Enclosure:</u> The structural integrity of the kraal is fair as it is a simple structure and it was constructed as an open structure with a roughly rectangular floor plan without any elaborate construction and structural detailing.</p>	<p>Low</p> <p>Medium</p>
6.	<p><i>Is the building's current and future use in sympathy with its original use (for which the building was designed)?</i></p> <p><u>Building 1 – Farm Dwelling:</u> The building is empty and has been stripped of most of its essential building detailing.</p> <p><u>Building 2 – Garage:</u> The building has no roof and is not used.</p> <p><u>Building 3 – Rondavel:</u> The building is a ruin without roof and door.</p> <p><u>Building 4 – Livestock Enclosure:</u> The structure is not used anymore.</p>	<p>Rating</p> <p>Low</p> <p>Low</p> <p>Low</p> <p>Low</p>
7.	<p><i>Were the alterations done in sympathy with the original design?</i></p> <p><u>Building 1 – Farm Dwelling:</u> The dwelling has been altered extensively and both sandstone and brick walling were added to the original core structure. Some effort was made to do the alterations in sympathy with the original structure but the difference in style, materials and craftsmanship is obvious and clearly distinguishable.</p> <p><u>Building 2 – Garage:</u> No alterations were made to the building.</p> <p><u>Building 3 – Rondavel:</u> No alterations were made to the building.</p> <p><u>Building 4 – Livestock Enclosure:</u> The kraal has retained its original form and shape.</p>	<p>Rating</p> <p>Not In Sympathy</p> <p>NA</p> <p>NA</p> <p>Still In Its Original Form</p>

8.	<p><i>Were the additions and extensions done in sympathy with the original design?</i></p> <p><u>Building 1 – Farm Dwelling:</u> The dwelling was extended and added-onto several times with different degrees of success.</p> <p><u>Building 2 - Garage:</u> The building has not been extended.</p> <p><u>Building 3 - Rondavel:</u> The building has not been extended.</p> <p><u>Building 4 – Livestock Enclosure:</u> The kraal is still in its original form and shape.</p>	<p>Rating</p> <p><i>Not In Sympathy</i></p> <p>NA</p> <p>NA</p> <p><i>Still In Original Form</i></p>
9.	<p><i>Are any of the buildings or structures the work of a major architect, engineer or builder?</i></p> <p>None of the buildings was designed by an architect or engineer as they were built in the vernacular tradition.</p>	<p>Rating</p> <p>Low</p>

7.2.2.3 Spatial significance

Even though each building needs to be evaluated as a single artefact the site still needs to be evaluated in terms of its significance in its geographic area, city, town, village, neighbourhood or precinct. This set of criteria determines the spatial significance

	Criteria	Significance
1.	<p><i>Can the building or structure be considered a landmark in the town or city?</i></p> <p>As the site is located on a farm and isolated from any urban centre the buildings have no impact on any town or city.</p>	<p>Rating</p> <p>Low</p>

8 DISCUSSION ON MITIGATION MEASURES

8.1. Meyer Farmstead

8.1.1 Required Mitigation Measures

An architectural historical assessment of the Meyer farmstead was compiled by Mauritz Naudé in 2013 (Naudé, 2012). In this report, the following mitigation measures are recommended for the farmstead:

- The dwelling, garage and other structures may be demolished; and
- Recording of the floor plan before any demolition Recording must consist of the following procedures and products: (a) photographic recording of all buildings,(b) measured drawings of the floor plan of the dwelling with (c) descriptions of the materials and features in standard architectural terminology and (d) compiled into a single report. The compilation of this material must be submitted to the heritage authority.

8.1.2 Discussion on Mitigation Measures

All the mitigation measures outlined above, have been completed. Please refer the following:

- The mitigation report compiled by Mauritz Naudé in October 2014 addresses all of the mitigation measures outlined above. This report is submitted with the present report; and
- Please refer **Section 6.1** for the description of materials and features of the farmstead structures in standard architectural terminology. Many of the photographs from the 2014 report are also shown in **Section 6.1**. Also refer **Figures 29** and **30** from this report for measured drawings of the farm dwelling taken from the 2014 report. Additionally, also refer **Figure 28** for the layout plan of the farmstead.

8.2. Du Toit Farmstead

8.2.1 Required Mitigation Measures

An architectural historical assessment was compiled by Mauritz Naudé in 2012 (Naudé, 2012). In this report, the following mitigation measures are recommended for the farmstead:

- The dwelling, garage and other outbuildings can be demolished. The cattle kraal must be retained; and

- Record all buildings (dwelling, outbuildings and kraal) before any demolition or alterations. The recording must consist of the following procedures and products: (a) photographic recording of all buildings,(b) measured drawings of all buildings (floor plan and elevations) with (c) descriptions of the materials and features in standard architectural terminology and (d) compiled into a single report.

8.2.2 Discussion on Mitigation Measures

All the mitigation measures outlined above, have been completed. Please refer the following:

- The mitigation report compiled by Mauritz Naudé in November 2016 addresses all of the mitigation measures outlined above. This report is submitted with the present report; and
- Please refer **Section 6.2** for the description of materials and features of the farmstead structures in standard architectural terminology. Many of the photographs from the 2016 report are also shown in **Section 6.2**. Also refer **Figures 56** and **57** from this report for measured drawings of the farm dwelling taken from the 2016 report. Additionally, also refer **Figure 55** for the layout plan of the farmstead.

9 CONCLUSIONS AND RECOMMENDATIONS

Introduction

PGS Heritage (Pty) Ltd was appointed by Glencore (Pty) Ltd to undertake the Phase 2 mitigation work for the purposes of obtaining destruction permits for two old farmsteads that will be affected by coal mining activities near Emalahleni, Emalahleni Local Municipality, Nkangala District Municipality, Mpumalanga Province.

The two farmsteads in question are as follows:

- Du Toit Farmstead, located on Portion 7 of the farm Steenkoolspruit 18-IS; and
- Meyer Farmstead, located on Portion 6 of the farm Steenkoolspruit 18-IS.

Associated Reports and Processes

The following reports and studies preceded the current report:

- In 2009, the Meyer farmstead was included in a Heritage Impact Assessment for the Proposed DMO Mining Venture undertaken by Cultmatrix (2009);
- In 2012, PGS Heritage & Grave Relocation Consultants were appointed to undertake a Heritage Assessment of the Du Toit farmstead. This report was undertaken by Polke Birkholtz (Heritage Specialist/Archaeologist) and Mauritz Naudé (Architectural Historian);
- In 2012, the Meyer farmstead was included in a Heritage Impact Assessment for the Proposed Atcom East Expansion of the Impunzi Colliery undertaken by PGS Heritage & Grave Relocation Consultants;
- In 2013, Mauritz Naudé compiled a Heritage Assessment (Architectural Historical) of the Meyer farmstead;
- In 2013, both the Du Toit and Meyer farmsteads are mentioned in a Heritage Statement for the Atcom and Tweefontein Dragline Relocation Project undertaken by Digby Wells Environmental (2013);
- In 2014, Mauritz Naudé compiled a recording report of the Meyer Farmstead. This report presented both the photographic recording of the farmstead, as well as the layout plans and facades recorded by the architectural specialist; and

- In 2016, Mauritz Naudé compiled a recording report of the Du Toit Farmstead. This report presented both the photographic recording of the farmstead, as well as the layout plans and facades recorded by the architectural specialist.

Aims of this Report

This report aims to provide a comprehensive document of all the work undertaken on the two farmsteads, with the aim of submitting this report, with the preceding documentation and reports, to the South African Heritage Resources Authority (SAHRA) for the purposes of applying for a destruction permit for the two farmsteads. This is as both farmsteads will be affected by coal mining activities in the near future.

Please note the following:

- The submission of the destruction permit application for the two farmsteads to SAHRA is due to the fact that both farmsteads were established more than 100 years ago;
- Despite the fact that both farmsteads are older than 100 years, and as a result are viewed as archaeological sites, no significant archaeological midden material could be observed in association with these farmsteads;
- One of the structures from the Du Toit Farmstead, namely the Livestock Enclosure, is earmarked for protection. As a result, the aim is not for this structure to be included in the destruction permit application; and
- This report is submitted with the preceding reports compiled by the author and the project architectural historian.

Summary of Key Sections of this Report

Please note the following key sections from this report:

- **Chapter 5 – History**

An intensive archival and historical desktop study was undertaken to compile a historic overview of the farmsteads and associated landscape. This chapter provides an overview of the history of this landscape, which is followed by a more in-depth assessment of the history and previous owners of the two farmsteads. This chapter also includes assessments of both historical and archival maps as well as an assessment of old aerial photographs.

- **Chapter 6 – Description of the two Farmsteads**

This chapter provides detailed descriptions of the two farmsteads and the structures identified there. It also provides many of the photographs that were taken by the project architectural historian Mauritz Naudé as part of the photographic recording he undertook of the two farmsteads. This chapter also provides measured drawings of the two farmsteads compiled by Mr. Naudé as well as site layout plans for both farmsteads.

- **Chapter 7 – Impact Assessment**

This chapter provides the assessments undertaken by the project architectural historian Mauritz Naudé on the two farmsteads in 2012 and 2013.

- **Chapter 8 – Mitigation**

This chapter outlines the mitigation measures that were recommended by the project architectural historian Mauritz Naudé on the two farmsteads in 2012 and 2013. It also discusses how these mitigation measures were addressed in the two recording reports compiled by Mr. Naudé in 2014 and 2016. Lastly, this chapter also highlights where in this current report the completed mitigation measures (such as photographs, measured drawings etc.) can be found.

Conclusions

This report provides a comprehensive view of all the assessments and mitigation work that was undertaken by PGS and the project architectural historian on the two farmsteads. In the opinion of the authors, all the mitigation measures that were recommended for the two farmsteads have been satisfactorily addressed. The authors hereby request that permits be granted for the destruction of the two farmsteads.

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NAUDÉ, M. 2016. *Recording Of Historic Dwelling At Steenkoolspruit (Site 2) At Impunzi Mine Development (Witbank – Nkangala District – Mpumalanga Province)*.

10.3 Archival References

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National Archives, MHG 22088

National Archives, MHG 6007/73

National Archives, MHG 9385/75

National Archives, Photographs, TAB, 786

National Archives, RAK, 3081

10.4 Historical Topographic Maps

All the historic topographical maps used in this report were obtained from the Directorate: National Geo-spatial Information of the Department of Rural Development and Land Reform in Cape Town.

10.5 Internet

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10.6 Google Earth

All the aerial depictions used in this report are from Google Earth.

Appendix A
Project team CV's

POLKE DOUSSY BIRKHOLTZ

Professional Heritage Specialist / Professional Archaeologist / Director PGS Heritage

Name: *Polke Doussy Birkholtz*

Date & Place of Birth: *9 February 1975 – Klerksdorp, North West Province, South Africa*

Place of Tertiary Education & Dates Associated:

Institution: University of Pretoria

Qualification: BA (Cum Laude) - Bachelor of Arts Specializing in Archaeology, History & Anthropology

Date: 1996

Institution: University of Pretoria

Qualification: BA Hons (Cum Laude) - Bachelor of Arts with Honours Degree Specializing in Archaeology

Date: 1997

Qualifications:

BA - Degree specialising in Archaeology, History and Anthropology

BA Hons - Professional Archaeologist

Memberships:

Association of Southern African Professional Archaeologists (ASAPA)

Professional Member of the CRM Section of ASAPA

Overview of Post Graduate Experience:

1997 – 2000 – Member/Archaeologist – Archaeo-Info

2001 – 2003 – Archaeologist/Heritage Specialist – Helio Alliance

2000 – 2008 – Member/Archaeologist/Heritage Specialist – Archaeology Africa

2003 - Present – Director / Archaeologist / Heritage Specialist – PGS Heritage

Languages: English: Speak, Read & Write & Afrikaans: Speak, Read & Write

Total Years' Experience: 19 Years

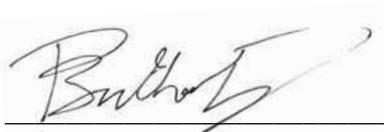
Experience Related to the Scope of Work:

- Polke has worked as a **HERITAGE SPECIALIST / ARCHAEOLOGIST / HISTORIAN** on more than 300 projects, and acted as **PROJECT MANAGER** on almost all of these projects. His experience includes the following:
 - Development of New Sedimentation and Flocculation Tanks at Rand Water's Vereeniging Pumping Station, Vereeniging, Gauteng Province. Heritage Impact Assessment for *Greenline*.
 - EThekweni Northern Aqueduct Project, Durban, KwaZulu-Natal. Heritage Impact Assessment for *Strategic Environmental Focus*.
 - Johannesburg Union Observatory, Johannesburg, Gauteng Province. Heritage Inventory for *Holm Jordaan*.
 - Development at Rand Water's Vereeniging Pumping Station, Vereeniging, Gauteng Province. Heritage Impact Assessment for *Aurecon*.
 - Comet Ext. 8 Development, Boksburg, Gauteng Province. Phase 2 Heritage Impact Assessment for *Urban Dynamics*.
 - Randjesfontein Homestead, Midrand, Gauteng Province. Baseline Heritage Assessment with Nkosinathi Tomose for Johannesburg City Parks.
 - Rand Leases Ext. 13 Development, Roodepoort, Gauteng Province. Heritage Impact Assessment for *Marsh*.
 - Proposed Relocation of the Hillendale Heavy Minerals Plant (HHMP) from Hillendale to Fairbreeze, KwaZulu-Natal. Heritage Impact Assessment for *Goslar Environmental*.
 - Portion 80 of the farm Eikenhof 323 IQ, Johannesburg, Gauteng Province. Heritage Inventory for *Khare Incorporated*.
 - Comet Ext. 14 Development, Boksburg, Gauteng Province. Heritage Impact Assessment for *Marsh*.
 - Rand Steam Laundries, Johannesburg, Gauteng Province. Archival and Historical Study for *Impendulo and Imperial Properties*.
 - Mine Waste Solutions, near Klerksdorp, North West Province. Heritage Inventory for *AngloGold Ashanti*.
 - Consolidated EIA and EMP for the Kroondal and Marikana Mining Right Areas, North West Province. Heritage Impact Assessment for *Aquarius Platinum*.
 - Wilkoppies Shopping Mall, Klerksdorp, North West Province. Heritage Impact Assessment for *Center for Environmental Management*.

- Proposed Vosloorus Ext. 24, Vosloorus Ext. 41 and Vosloorus Ext. 43 Developments, Ekurhuleni District Municipality, Gauteng Province. Heritage Impact Assessment for *Enkanyini Projects*.
- Proposed Development of Portions 3, 6, 7 and 9 of the farm Olievenhoutbosch 389 JR, City of Tshwane Metropolitan Municipality, Gauteng Province. Heritage Impact Assessment for *Marsh*.
- Proposed Development of Lotus Gardens Ext. 18 to 27, City of Tshwane Metropolitan Municipality, Gauteng Province. Heritage Impact Assessment for *Pierre Joubert*.
- Proposed Development of the site of the old Vereeniging Hospital, Vereeniging, Gauteng Province. Heritage Scoping Assessment for *Lekwa*.
- Proposed Demolition of an Old Building, Kroonstad, Free State Province. Phase 2 Heritage Impact Assessment for *De Beers Consolidated Mines*.
- Proposed Development at Westdene Dam, Johannesburg, Gauteng Province. Heritage Impact Assessment for *Newtown*.
- West End, Central Johannesburg, Gauteng Province. Phase 1 Heritage Impact Assessment for the *Johannesburg Land Company*.
- Kathu Supplier Park, Kathu, Northern Cape Province. Heritage Impact Assessment for *Synergistics*.
- Matlosana 132 kV Line and Substation, Stilfontein, North West Province. Heritage Impact Assessment for *Anglo Saxon Group* and *Eskom*.
- Marakele National Park, Thabazimbi, Limpopo Province. Cultural Resources Management Plan for *SANParks*.
- Cullinan Diamond Mine, Cullinan, Gauteng Province. Heritage Inventory for *Petra Diamonds*.
- Highveld Mushrooms Project, Pretoria, Gauteng Province. Heritage Impact Assessment for *Mills & Otten*.
- Development at the Reserve Bank Governor's Residence, Pretoria, Gauteng Province. Archaeological Excavations and Mitigation for the *South African Reserve Bank*.
- Proposed Stones & Stones Recycling Plant, Johannesburg, Gauteng Province. Heritage Scoping Report for *KV3*.
- South East Vertical Shaft Section of ERPM, Boksburg, Gauteng Province. Heritage Scoping Report for *East Rand Proprietary Mines*.
- Proposed Development of the Top Star Mine Dump, Johannesburg, Gauteng Province. Detailed Archival and Historical Study for *Matakoma*.
- Soshanguve Bulk Water Replacement Project, Soshanguve, Gauteng Province. Heritage Impact Assessment for *KWP*.
- Biodiversity, Conservation and Participatory Development Project, Swaziland. Archaeological Component for *Africon*.
- Camdeboo National Park, Graaff-Reinet, Eastern Cape Province. Cultural Resources Management Plan for *SANParks*.

- Main Place, Central Johannesburg, Gauteng Province. Phase 1 Heritage Impact Assessment for the *Johannesburg Land Company*.
 - Modderfontein Mine, Springs, Gauteng Province. Detailed Archival and Historical Study for *Consolidated Modderfontein Mines*.
 - Proposed New Head Office for the Department of Foreign Affairs, Pretoria, Gauteng Province. Heritage Impact Assessment for *Holm Jordaan Group*.
 - Proposed Modification of the Lukasrand Tower, Pretoria, Gauteng Province. Heritage Assessment for IEPM.
 - Proposed Road between the Noupoort CBD and Kwazamukolo, Northern Cape Province. Heritage Impact Assessment for *Gill & Associates*.
 - Proposed Development at the Johannesburg Zoological Gardens, Johannesburg, Gauteng Province. Detailed Archival and Historical Study for *Matakoma*.
- Polke's **KEY QUALIFICATIONS:**
 - Project Management
 - Archaeological and Heritage Management
 - Archaeological and Heritage Impact Assessment
 - Archaeological and Heritage Fieldwork
 - Archival and Historical Research
 - Report Writing
- Polke's **INFORMATION TECHNOLOGY EXPERIENCE:**
 - *MS Office – Word, Excel, & Powerpoint*
 - *Google Earth*
 - *Garmin Mapsource*
 - *Adobe Photoshop*
 - *Corel Draw*

I, Polke Doussy Birkholtz, hereby confirm that the above information contained in my CV is true and correct.



PD Birkholtz

26 May 2020

Date

PROFESSIONAL CURRICULUM FOR CHERENE DE BRUYN

Name: Cherene de Bruyn
Profession: Archaeologist
Date of Birth: 1991-03-01
Parent Firm: PGS Heritage (Pty) Ltd
Position in Firm: Archaeologist
Years with Firm: 3 Months
Years' experience: 2
Nationality: South African
HDI Status: White Female

EDUCATION:

Name of University or Institution : University of Pretoria
Degree obtained: : BA
Major subjects : Archaeology and Anthropology
Year : 2010-2012

Name of University or Institution : University of Pretoria
Degree obtained : BA (Hons)
Major subjects : Archaeology
Year : 2013

Name of University or Institution : University of Pretoria
Degree obtained : BSc (Hons)
Major subjects : Physical Anthropology
Year : 2015

Name of University or Institution : University College London
Degree obtained : MA
Major subjects : Archaeology
Year : 2016/2017

Professional Qualifications:

Association of Southern African Professional Archaeologists - Professional Member (#432)

International Association for Impact Assessment South Africa - Member (#6082)

Association of Southern African Professional Archaeologists - CRM Accreditation

- Principal Investigator: Grave relocation

- Field Director: Colonial period archaeology, Iron Age archaeology
- Field Supervisor: Rock art, Stone Age archaeology
- Laboratory Specialist: Human Skeletal Remains

Languages:

Afrikaans and English

KEY QUALIFICATIONS

Heritage Impact Assessment Management, Historical and Archival Research, Archaeology, Physical Anthropology, Grave Relocations, Fieldwork and Project Management including *inter alia*

Summary of Experience

Involvement in various grave relocation projects and grave “rescue” excavations in the various provinces of South Africa

Involvement with various Heritage Impact Assessments, within South Africa

- Heritage Impact Assessments for various projects

HERITAGE ASSESSMENT PROJECTS

Below a selected list of Heritage Impact Assessments (HIA) Projects involvement:

- Piggery On Portion 46 Of The Farm Brakkefontien 416, Heritage Impact Assessment, Nelson Mandela Bay Municipality, Eastern Cape.
- Upgrade Of Road D4407 Between Hlulukani And Timbavati, Road D4409 At Welverdiend And Road D4416/2 Between Welverdiend And Road P194/1, Heritage Impact Assessment, Bohlabela Region, Mpumalanga Province.
- Rapid Land Release Programme for the Gauteng Department of Human Settlement: Rietfontein Site, Heritage Impact Assessment, Lenasia, Gauteng Province.
- Heritage Impact Assessment for the proposed piggery on Portion 46 of the Farm Brakkefontien 416, within the Nelson Mandela Bay Municipality, Eastern Cape Province.
- Heritage Impact Assessment for the proposed Rapid Land Release Programme for the Gauteng Department of Human Settlement: Rietfontein Site, Gauteng Province.
- Heritage Impact Assessment for the proposed Prospecting Right Application on the Farm Reserve No 4 15823 And 7638/1, near St Lucia, within the jurisdiction of the Mfolozi Local Municipality in the King Cetshwayo District Municipality, KwaZulu-Natal Province.
- Heritage Public Participation report for the proposed alterations Of Erf 1/966 Rosettenville or 94 Main Street Rosettenville within the City Of Johannesburg Metropolitan Municipality, Gauteng Province.
- Heritage Impact Assessment for the proposed mining rights on the Farm Waterkloof 95 located between Griekwastad and Groblershoop in the Pixley Ka Seme District Municipality within the Northern Cape Province.

- Heritage Impact Assessment for the proposed East Coast Gas 400 Kv Power Lines, located in Richards Bay, within the Umhlathuze Local Municipality in the King Cetshwayo District Municipality in the Kwazulu-Natal Province.
- Heritage Impact Assessment for the amendment of an existing prospecting right and environmental authorization for Bothaville NE Ext A, situated in the Free State Province.
- Heritage Impact Assessment Study for the Proposed New Lambano Sub Acute Facility on Stand 5454, 5455, 5456,5457 and New Training Facility on Stands 5458 and 5460 in Kensington, Johannesburg.
- Heritage Impact Assessment for the Prospecting Right and Environmental Authorization Application for Ventersburg B situated in the Free State Province.
- Heritage Impact Assessment for the proposed prospecting rights application and environmental authorisation for the farm Three Sisters in Barberton, within the city of Mbombela Local District, Mpumalanga.
- Heritage Impact Assessment and Integrated Cultural Resources Management Study for The Proposed Mfolozi-Mbewu 765kv Transmission Line, Zululand And King Cetshwayo District Municipality, KwaZulu-Natal.
- Heritage Impact Assessment the prospecting right and environmental authorisation application for Vredefort West situated in the Free State Province.

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GRAVE RELOCATION PROJECTS

Below, a selection of grave relocation projects involvement:

- Relocation Of Approximately 4 Stillborn Graves From Farm Wonderfontein 428 Js, Umsimbithi Mining (Pty) Ltd, Belfast, Chief Albert Luthuli Local Municipality, Mpumalanga Province.
- Grave exhumation and relocation of 19 graves on erf 3 of Holding 87 North Riding Agricultural Holdings, City of Johannesburg, Gauteng Province.
- Report on the exhumation and reburial report of 16 graves from Doornkop, to Voortrekker Cemetery in Middelburg, Mpumalanga Province
- Exhumation and reburial report of 4 graves located at Tombo, Eastern Cape Province.
- Report on rescue excavations and skeletal analyses of two archaeological graves inadvertently uncovered in Boitekong, North-West Province.
- Rescue excavation of an unmarked graveyard at Diamond Park, Greenpoint, Kimberley, Northern Cape Province.
- Report on Follow-up site visit excavation and physical anthropological analyses of archaeological human remains transferred from SAPA Victim Identification Centre to the Department of Anatomy. Mamelodi East Phase 2 House 566.
- Excavation of human remains from Marulaneng village, Bakenberg Limpopo Province.
- Follow up site visit on human remains found at Bothlokwa (Ramatjowe & Mphakahne), Limpopo Province.

- Follow up site visit on human remains found in Waterpoort, Soutpansberg, Limpopo Province.

EMPLOYMENT SUMMARY:

Positions Held

- 2020 – to date: Archaeologist - PGS Heritage
- 2019: Manager of the NGT ESHS Heritage Department – NGT Holding
- 2018 – 2019: Archaeologist and Heritage Consultant – NGT Holdings
- 2015-2016: Archaeological Contractor - BA3G, University of Pretoria
- 2014 – 2015: DST-NRF Archaeological Intern, Forensic Anthropological Research Centre

I, Cherene de Bruyn, hereby confirm that the above information contained in my CV is true and correct.



C. de Bruyn

26 May 2020

Date

