PO Box 32542
Totiusdal, 0134
Tel: 012 332 5305
Fax: 012 332 2625
info@gravesolutions.co.za

906 Bergarend Street
Waverley
Pretoria
0186

www.gravesolutions.co.za

Professional Grave Solutions (Pty) Ltd | Reg No 2003/008940/07 | Directors: HS Steyn, PD Birkholtz, W Fourie

GR # 18 & 3

2 March 2010

South African Heritage Resources Agency
APM Unit
PO BOX 4637
CAPE TOWN
8000

HERITAGE IMPACT ASSESSMENTS FOR REVIEW

Please find the following HI for your review and comment:

1. Optimum Colliery – Kwagga North Project, Middelburg, Mpumalanga

Can you please provide us with a proof of receipt for these reports, via email to wouter@gravesolutions.co.za, or for any further enquiries please contact Wouter Fourie on 082 851 3575.

Best wishes,

Wouter Fourie
Director
Professional Grave Solutions (Pty) Ltd

SA HERITAGE RESOURCES AGENCY
RECEIVED
04 MAR 2010

CASE ID: 1803

pgs

HERITAGE UNIT

Heritage Assessment

The Kwagga North Project, Optimum Coal, Arnot, Mpumalanga

Version 1.0

2 October 2009

Professional Grave Solutions (Pty) Limited

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

ACKNOWLEDGEMENT OF RECEIPT

CLIENT: Consecion Creek Consulting

CONTACT PERSON: Dr Dion Brandt, Tel/Fax (013) 712-6456, Cell 082 850-3372, email: dion.brandt@tiscali.co.za

SIGNATURE: _____

LEADING CONSULTANT: Professional Grave Solutions - Heritage Unit

CONTACT PERSON: Wouter Fourie

SIGNATURE: _____

Copyright

EXECUTIVE SUMMARY

Professional Grave Solutions Heritage Unit was appointed by Concession Creek Consulting to undertake a Heritage Assessment (HIA) that forms part of the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) for the Kwagga North Project of Optimum Coal, close to Arnot, Mpumalanga.

During the survey 36 sites of heritage significance were identified.

The heritage sites consist of 29 cemeteries with a total of approximately 350 graves, 6 farmsteads and one quarry site.

As most of the heritage sites will be impacted by the mining activities and the current relocation process of the communities currently on the land id in progress - it is recommended that the mitigation measures relating to the heritage structures be implemented while the communities are still present on the property.

The following mitigations measures are recommended for the heritage site identified where they are to be impacted by the mining project.

Graves and Cemeteries

Mitigation of these sites will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation. The grave relocation process must include:

- A detailed social consultation process, that will trace the next-of-kin and obtain their consent for the relocation of the graves, that will be at least 60 days in length;
- Site notices indicating the intent of the relocation
- Newspaper Notice indicating the intent of the relocation
- A permit from the local authority;
- A permit from the Mpumalanga Department of health;
- A permit from the South African Heritage Resources Agency if the graves are older than 60 years or unidentified and thus presumed older than 60 years;
- An exhumation process that keeps the dignity of the remains and family intact;
- An exhumation process that will safeguard the legal implications towards the mining company;
- The whole process must be done by a reputable company that are well versed in relocations;
- The process must be conducted in such a manner as to safeguard the legal rights of the families as well as that of the mining company.

Houses and Farmsteads

If the mining impact will be direct and the destruction of the site will be required a destruction permit under Section 34 of the NHRA will be required. This permit will only be granted after the site has been documented in its entirety by layout sketches of each structure and the farmstead layout, photographic documentation and historical background of the farmstead.

Ndebele Murals and settlement clusters

Due to the intricacies associated with the evaluation of intangible heritage and the link with architecture the following recommendations are made, with regards to the houses and painted mural sin the study area:

- A specialist on the study of the Ndebele culture and the painted murals must be commissioned to document the oral history, settlement patterns and social structures of the settlements to be able to develop a structured documentation of the tangible and intangible heritage of the people and settlements and make further recommendations;
- The physical layout of the settlements clusters must be documented and layout sketches made in conjunction with a conservation architect;
- The ages of the settlements must be determined and if older than 60 years, a destruction permit under Section 34 of the NHRA will be required form the Mpumalanga PHRA.

The following general mitigation measures are recommended:

- When the final layout plan is established for the mine it must be assessed whether any other sites will be impacted upon by roads, services, transmissions lines etc. The appropriate mitigation measures must be employed for these sites
- A Monitoring plan or watching brief must be agreed upon by all the stakeholders for the different phases of the project. An archaeologist is employed by the developer to monitor the excavation of foundation and service trenches, landscaping and any other intrusive work. The developer undertakes to give the archaeologist sufficient time to identify and record and archaeological finds and features.
- If during construction any possible finds are made, the operations must be stopped and the qualified archaeologist be contacted for an assessment of the find.
- A heritage resources management plan must be developed for managing the heritage resources in the study area during construction and operation of the development. This includes basic training for construction staff on possible finds, action steps for mitigation measures, surface collections, excavations, and communication routes to follow in the case of a discovery.

CONTENTS

FIGURES

ANNEXURE

1. INTRODUCTION

Professional Grave Solutions Heritage Unit was appointed by Concession Creek Consulting to undertake a Heritage Assessment (HIA) that forms part of the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) for the Kwagga North Project of Optimum Coal, close to Arnot, Mpumalanga.

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

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

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

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

2. PROJECT DESCRIPTION

The Kwagga Section is an extension of Optimum Colliery into reserves previously owned and mined by AngloCoal. The proposed mining layout of the Kwagga Project region can be seen in Figure 1.6. Arnot Colliery, mined by AngloCoal and neighboring the Kwagga Section, was contracted to supply bituminous coal to Eskom's 2100 MW Arnot Power station at a rate of up to 6,18 million tons per annum.

2.1 Mineral deposit

The Arnot North coal reserve falls within the Witbank Coalfield, comprising of sediments of the coal-bearing Ecca Group of the Karoo Sequence that were deposited on a volcanic pre-Karoo floor. The basement consists mainly of rhyolitic rocks of the Damwal Formation, Rooiberg Group, and Granophyre of the Rashoop Suite in the north. The latter two basement units had a significant influence on the nature, distribution, and thickness of the overlying sedimentary units, especially the coal seam thickness and coal quality.

2.2 Mining method

The mining method used is opencast using draglines combined with truck and shovel for boxcut areas where necessary. Refer to Annexure F for Mining Plan

2.3 Planned production rate

The planned production rate is 14 million tons per year.

2.4 Planned life of mine

With the phasing in of south, central, and northern areas, mining will continue to 2025.

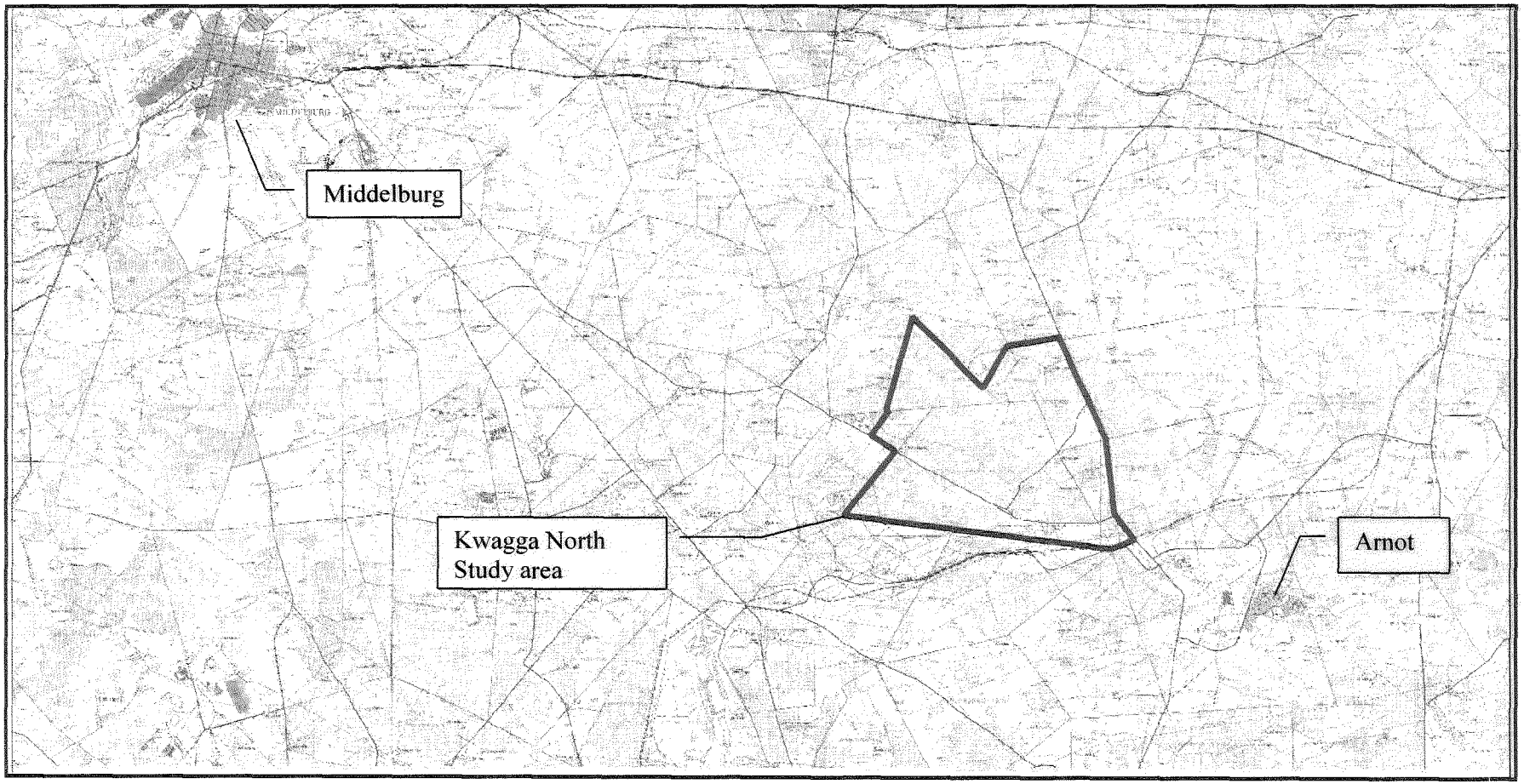


Figure 1 – Locality Map

2.1 METHODOLOGY

This AIA report have been compiled by DWA and PGS for the proposed Universal Coal Kangala Mine, including applicable maps, tables and figures, as stipulated in the NHRA (no 25 of 1999), the NEMA (no 107 of 1998) and the MPRDA (28 of 2002). The AIA process consisted of three steps:

- Step I – Literature Review: This step was aimed at gathering information relating to known archaeological and heritage resources within and surrounding the proposed development area, which included a desktop study and literature reviews of project information.

- Step II – Physical Survey: A physical survey was conducted on foot through the proposed project area by qualified archaeologists (10-30 August 2009), aimed at locating and documenting sites falling within and adjacent to the proposed development footprint.

- Step III – The final step involved the recording and documentation of relevant archaeological and heritage resources, as well as the assessment of resources in terms of the archaeological impact assessment criteria (Appendix 2) and report writing, as well as mapping and constructive recommendations

2.2 PHYSICAL SURVEYING

The study area for the proposed projects covers approximately 2300 hectares. Due to the nature of cultural remains, with the majority of artefacts occurring below surface, an intensive foot-survey that covered the study area was conducted. A controlled-exclusive surface survey was conducted over a period of 10 days, by means of vehicle and extensive surveys on foot by two archaeologists of PGS Heritage Unit.

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

3. LEGISLATIVE REQUIREMENTS

The NHRA stipulates that cultural heritage resources may not be disturbed without authorization 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 National Environmental Management Act (No 107 of 1998) states that an integrated environmental management plan should (23:2 (b)) "...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage..." In compliance with the Mineral and Petroleum Resources Development Act (no 28 of 2002) (MPRDA), the NHRA and NEMA, this AIA report has been compiled for the proposed Kangala mining project in Delmas area. In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure

that a comprehensive legally compatible AIA report is compiled. The heritage impact assessment criteria are described in more detail in Annexure A.

4. BACKGROUND OF AREA

4.1 Archaeological Time frame

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

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

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

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

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the Pre-Historic and Historic periods. Similar to the Stone Age, it too can be divided into three periods:

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

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

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

4.2 Historical Time frame

Refer to **Annexure E** for a Archival and Desktop study on the study area.

5. HERITAGE SITES

During the survey a total of 36 heritage sites were identified that were inside the study area.

The area is situated on topographical maps 2529CD. The area is characterised by rolling fields covered with maize and open fields. The larger part of the area is currently utilised for maize and cattle farming.

5.1 Site 1

GPS: 25,89247 S 29,68424 E

A small informal, unfenced cemetery with approximately 60 graves was identified at this location. The graves were situated in an open grass field, next to and in between the stands of the Kwaggafontein village. The graves were placed in several lines and were orientated from east to west. One of the graves had a formal granite dressing, two graves had rectangular brick and cement outlines as dressings, 5 graves had cement headstones the rest had informal stone packed dressings. The graves were overgrown with grass, but it was evident that they were regularly maintained.

Site size: Approximately 30m x 30m.

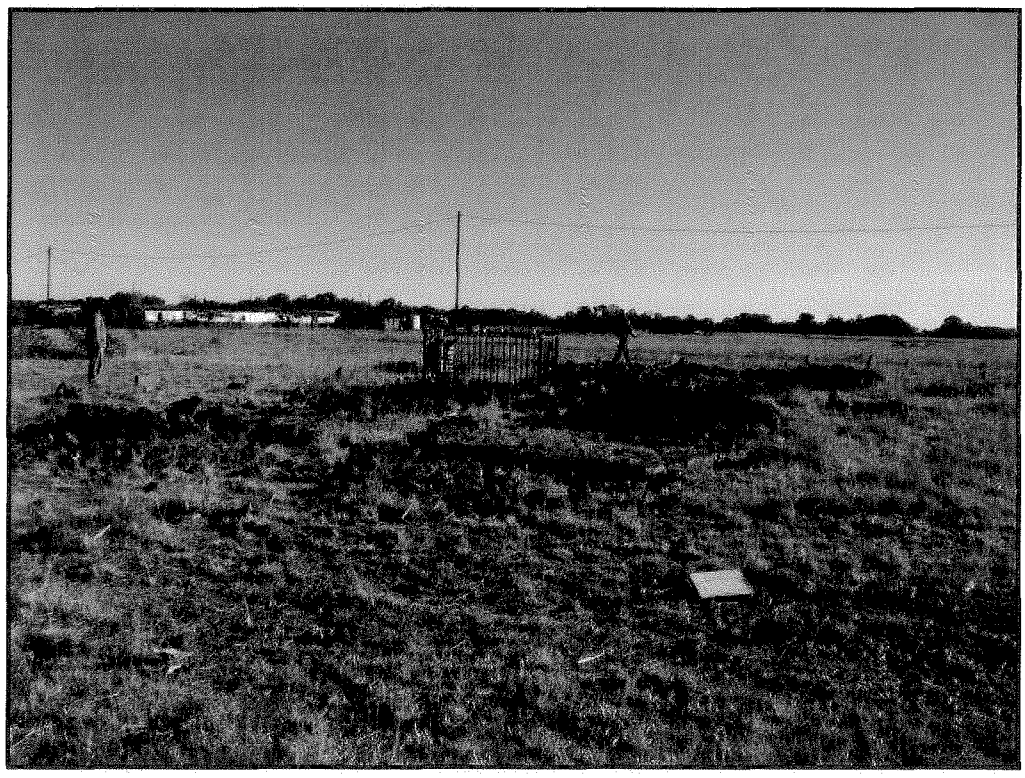


Figure 2 - General view of site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.2 Site 2

GPS: 25,89398 S 29,68801 E

A single formal grave of a child was identified at this location. The grave was set next to a ploughed field and was orientated from east to west. The grave had a cement dressing and headstone, which was damaged. The grave was of Hendrik Viljoen born 20/08/1925 and died 28/01/1937. The grave was overgrown with grass.

Site size: Approximately 1m x 2m.

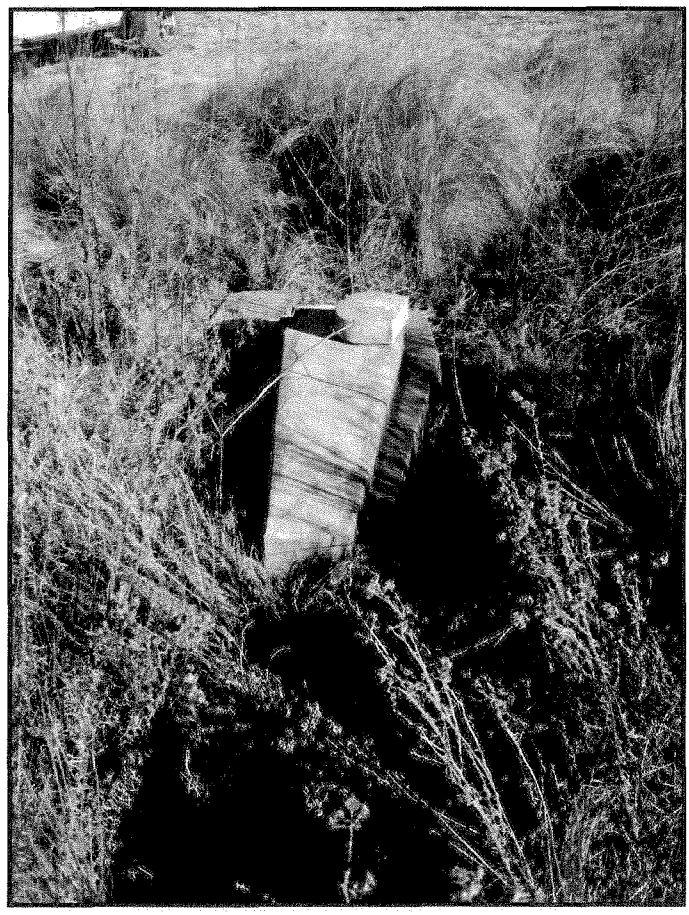


Figure 3 -General view of site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.3 Site 3

Coordinates: 25,90261 S 29,69000 E

Two informal graves were identified at this location. The graves were placed next to each other in a cluster of trees. The graves were orientated from east to west and they had informal stone packed dressings. The graves were covered with debris from the trees.

Site size: Approximately 3m x 3m

Figure 4 - General view of site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.4 Site 4

GPS: 25,90521 S 29,69504 E

A small, fenced informal cemetery with approximately 22 graves was identified here. The graves were placed in a line next to each other in an open grass field. The graves were orientated from east to west. One of the graves had a brick and cement outline as dressing, but the rest of the graves had informal stone packed dressings. The graves were overgrown with grass.

Site size: Approximately 20m x 20m

Figure 5 - General view of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Low	GP.B	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.5 Site 5

GPS: 25,90779 S 29,69918 E

A small informal, fenced cemetery with approximately 25 graves was identified here. The graves were placed in lines next to each other in a ploughed field. The graves were orientated from east to west and most of them had formal granite or cement headstones and dressings. The graves ranged from the early 1920's to the 1950's and 60's. Most of the graves were damaged or disturbed to an extent and were overgrown with grass.

Site size: Approximately 25m x 25m

Figure 6 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Low	GP.B	Unsure	Short term	B

Mitigation The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.6 Site 6

GPS: 25,90897 S 29,70108 E

Some remains of an old farm house and its outbuildings were identified at this location. The house was demolished in the late 1960's and not much was left of it.

Site size: Approximately 100m x 100m

Figure 7 - General view of site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Low	GP.C	Unsure	Short term	A

Mitigation: Currently no further mitigation required.

5.7 Site 7

GPS: 25,90398 S 29,72239 E

A cluster of five graves was identified here. The graves were placed in a haphazard fashion in the middle of a ploughed field. Most of the graves were damaged to an extent probably due to the ploughing activities. The graves were orientated from east to west and were overgrown with grass. One of the graves had a formal granite dressing and the others had cement headstones with informal stone packed dressings.

Site size: Approximately 10m x 15m.

Figure 8 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.8 Site 8

GPS: 25,89263 S 29,68508 E

An infant was buried behind the back wall of the house.

Site size: Approximately 1m x 1m

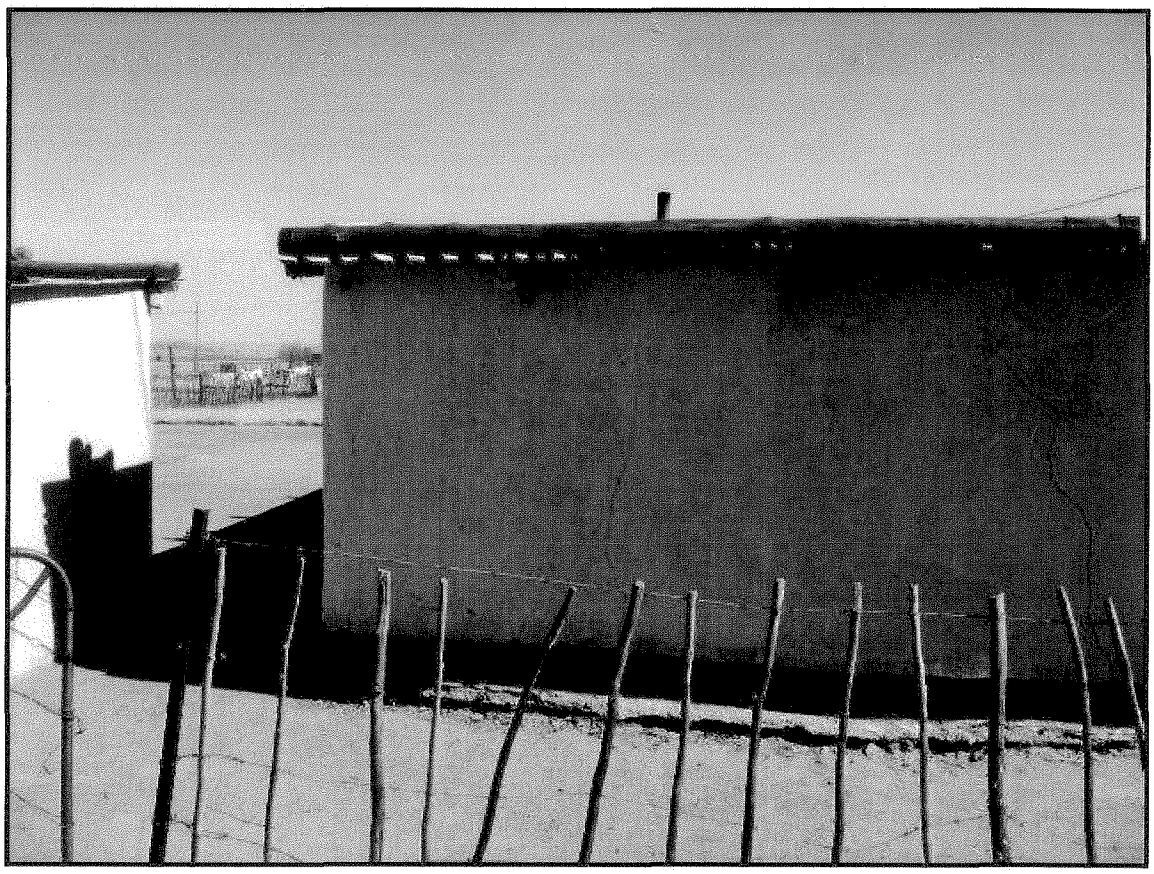


Figure 9 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Low	GP.C	Probable	Short term	A

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.9 Site 9

GPS: 25,89189 S 29,68511 E

An infant was buried in the corner of the wall of the house and one of the lapa walls. A small raised platform was built over the grave.

Site size: Approximately 1m x 1m

Figure 10 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	Grade 2	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.10 Site 10

GPS: 25,89134 S 29,68390 E

An infant was buried next to the wall of the cooking area. A small raised platform was built over the grave and it was also covered with a sheet of corrugated iron.

Site size: Approximately 1m x 1m

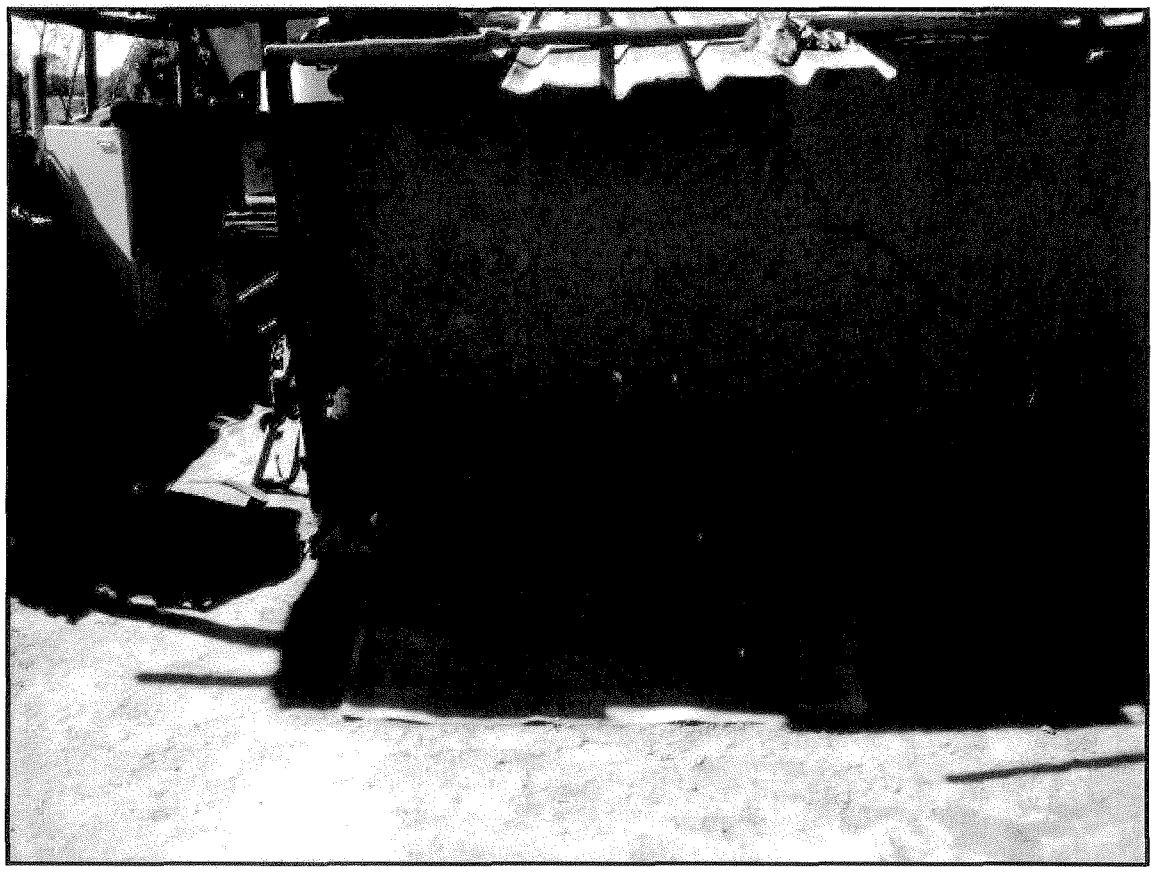


Figure 11 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.11 Site 11

GPS: 25,89074 S 29,68281 E

A miscarriaged child was buried underneath the floor of the indicated room.

Site size: Approximately 1m x 1m

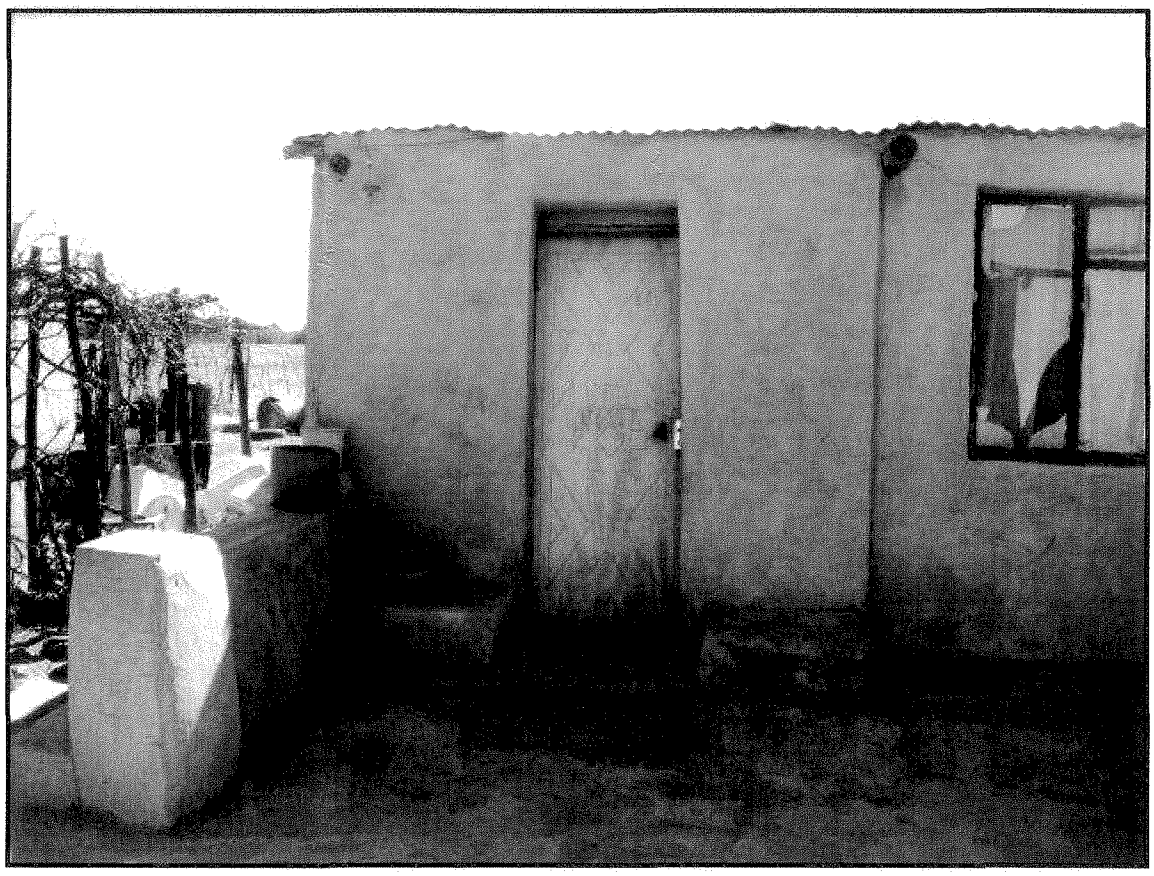


Figure 12 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.12 Site 12

GPS: 25,88977 S 29,68324 E

An infant was buried underneath (or next to) one of the walls of the dilapidated structure.

Site size: Approximately 1m x 1m.

Figure 13 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

6.13 Site 13

GPS: 25,88950 S 29,68414 E

An infant was buried at the back of the house. The grave was covered with a sheet of corrugated iron.

Site size: Approximately 1m x 1m.

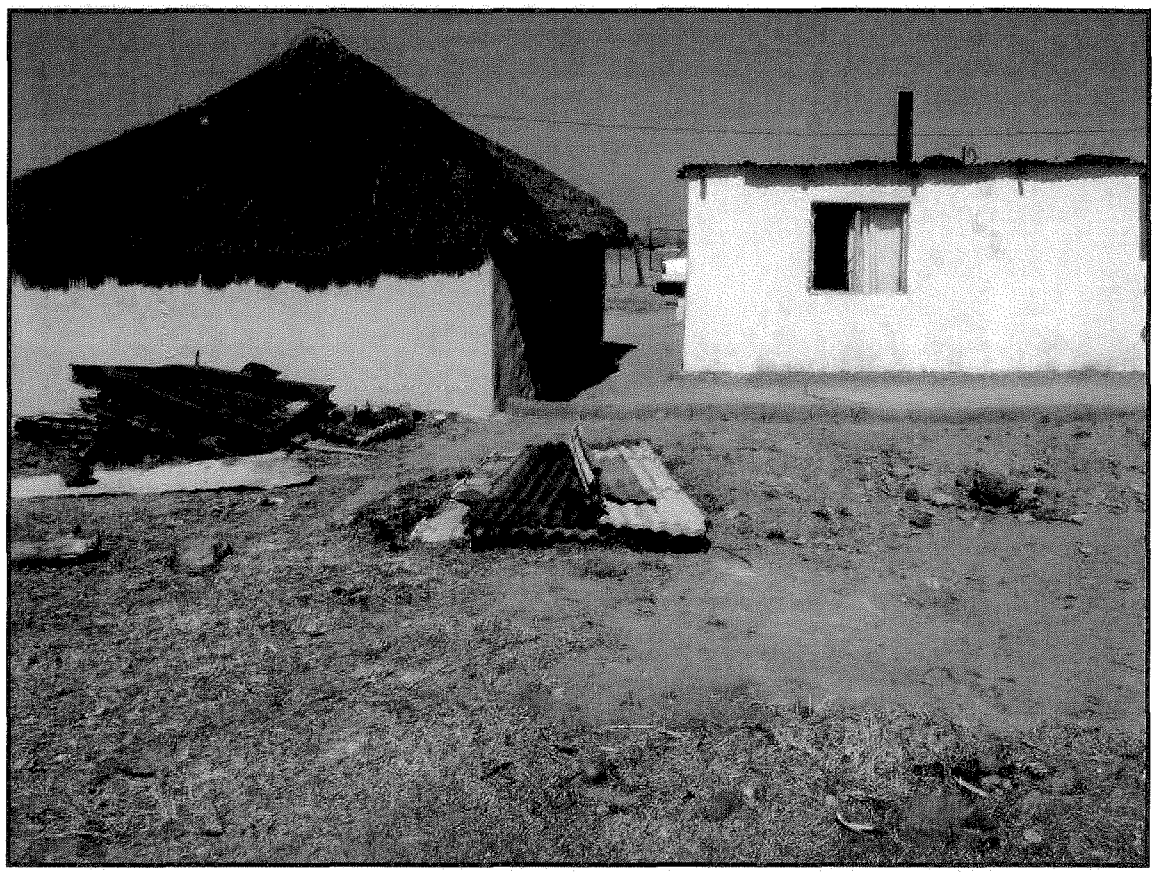


Figure 14 - View of grave

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Medium	GP.B	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.14 Site 14

GPS: 25,88617 S 29,67254 E

The remains of an unknown square shaped stone walled structure. The structure measured approximately 10m x 10m.

Site size: Approximately 15m x 15m

Figure 15 - View of site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Medium	GP.B	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. If the mining impact will have a direct impact it is recommended that the site be cleaned and evaluated by a conservation architect for further specific recommendations.

5.15 Site 15

GPS: 25,89399 S 29,68478 E

The dilapidated remains of an old farm house and its outbuildings were identified here. Some parts of the buildings or rooms were still being occupied, but most of them were in a neglected state.

Site size: Approximately 50m x 60m

Figure 16 - View of farmhouse

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. If the mining impact will have a direct impact it is recommended that the site be evaluated by a conservation architect for further specific recommendations.

5.16 Site 16

GPS: 25,89690 S 29,73574 E

A small informal, fenced family cemetery with seven graves was identified at this location. The graves belonged to the Van Eeden family who still lives on the farm. The graves were orientated from east to west and all had formal granite dressings. The cemetery was well maintained.

Site size: Approximately 15m x 15m

Figure 17 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.17 Site 17

GPS: 25,89604 S 29,72943 E

A small informal, fenced cemetery with approximately 30 graves was identified here. The cemetery was set next to a ploughed and planted maize field. The graves were placed in lines next to each other and were orientated from east to west. Most of the graves had informal rock dressings, but six had formal granite and cement headstones and dressings. Most of the cemetery was overgrown with grass. Most of the graves belonged to the Mokwena family.

Site size: Approximately 20m x 20m

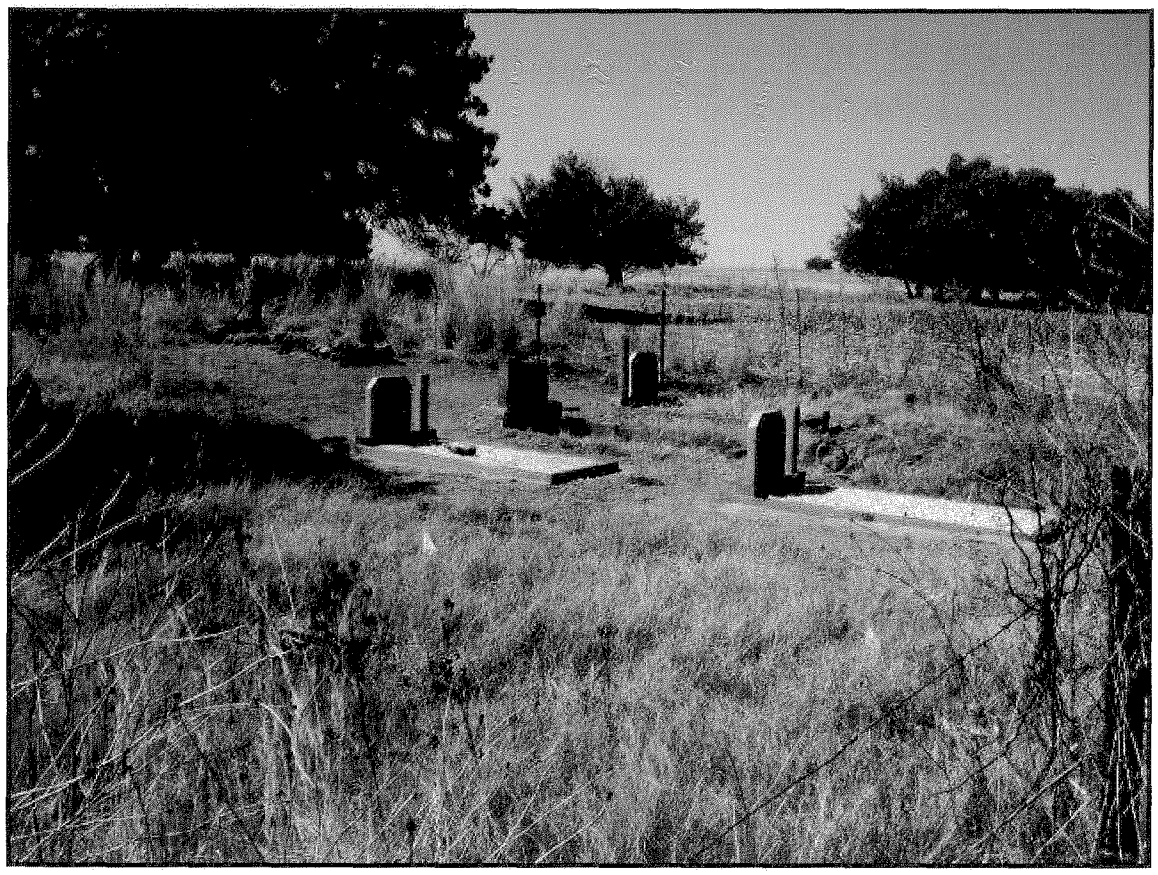


Figure 18 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.18 Site 18

GPS: 25,88338 S 29,74118 E

A small informal, fenced cemetery with 16 graves was identified here. The cemetery was in an open field next to a small pan. The graves were placed in two lines next to each other and were orientated from east to west. Most of the graves had informal rock dressings, but seven graves had rectangular shaped brick and cement outlines with cement inscribed headstones. The cemetery and the graves were well maintained.

Site size: Approximately 15m x 20m.

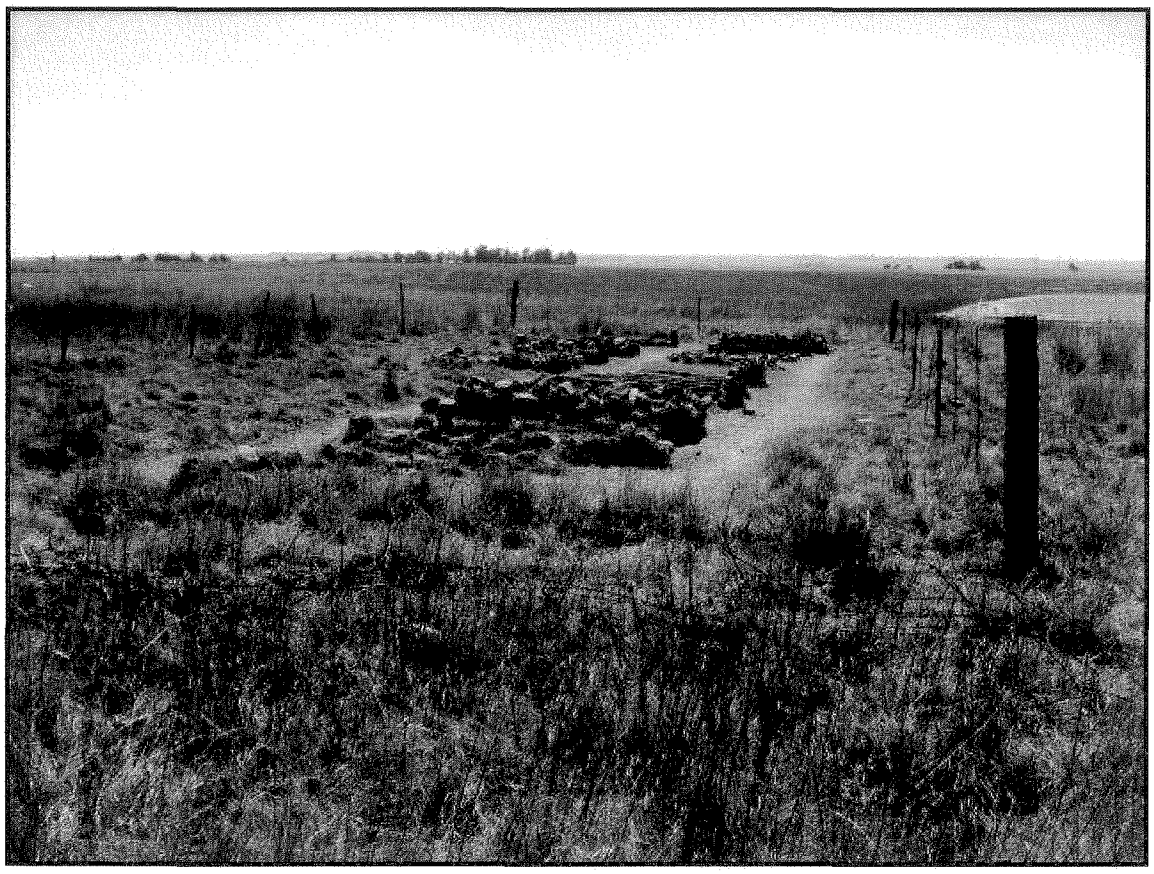


Figure 19 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.19 Site 19

GPS: 25,87869 S 29,74446 E

A large square outline of packed rocks was indicated as the location of a grave. The outline of packed rocks measured approximately 3m x 3m. A name 'Makoti Msiza' was painted on a metal plate and placed at the northern end of the stone packed outline. This was most probably not a grave.

Site size: Approximately 3m x 3m.

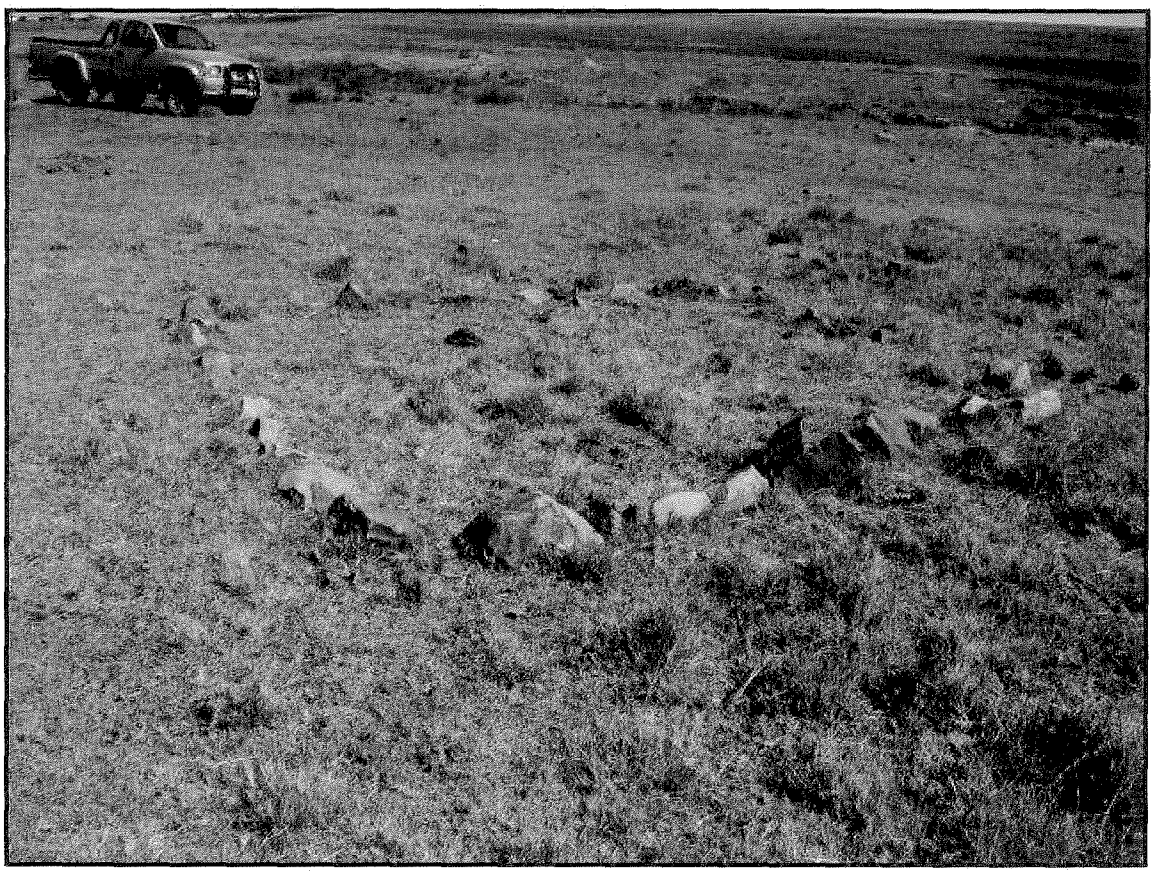


Figure 20 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.20 Site 20

GPS: 25,88004 S 29,74565 E

An infant was buried in the corner of the wall of the house and an interconnecting lapa wall.

Site size: Approximately 1m x 1m

Figure 21 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.21 Site 21

GPS: 25,87973 S 29,74557 E

Five informal graves were identified at this location. The graves were placed in a line next to each other in an open grass field next to the fence of the stand. The graves were orientated from east to west and all had informal stone packed dressings. The graves were all overgrown with grass.

Site size: Approximately 5m x 20m

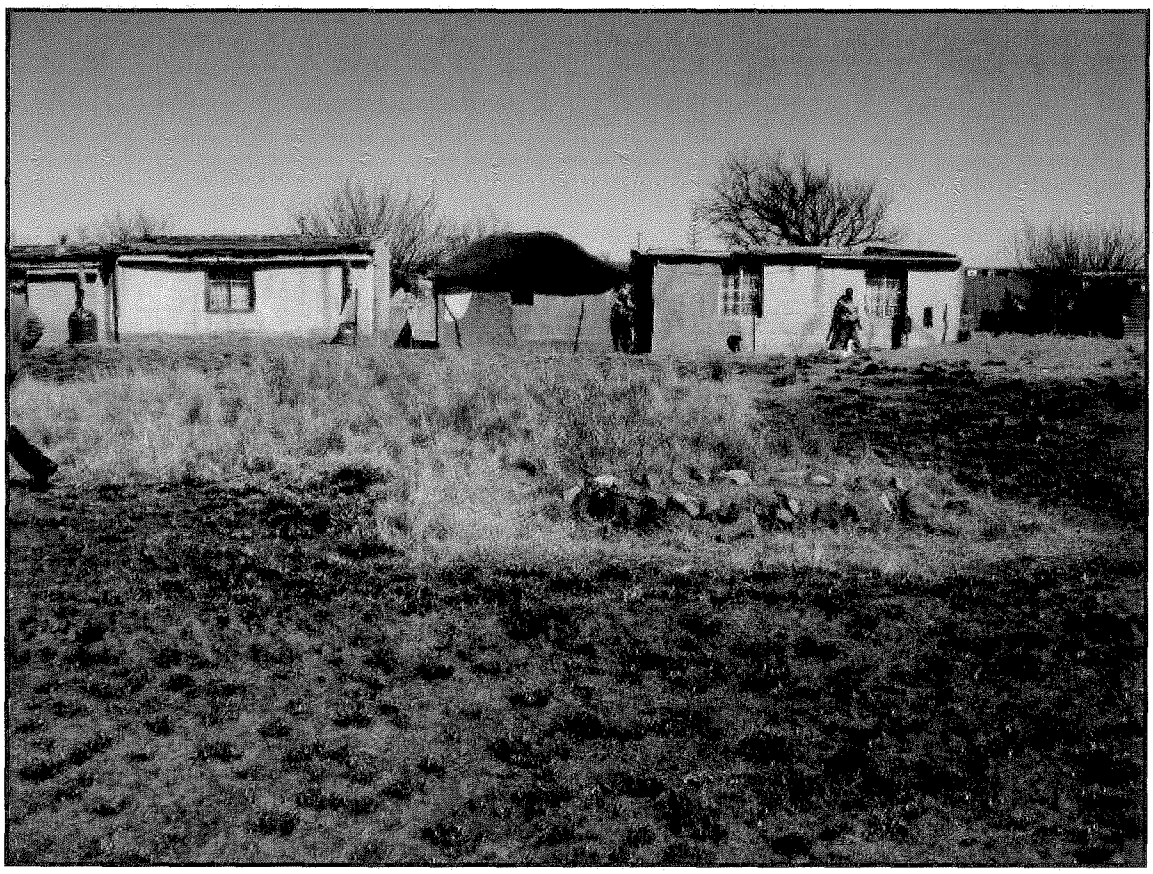


Figure 22 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Possible	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.22 Site 22

GPS: 25,88121 S 29,74552 E

An infant was buried underneath the floor of the temporary structure next to the main house.

Site size: Approximately 1m x 1m

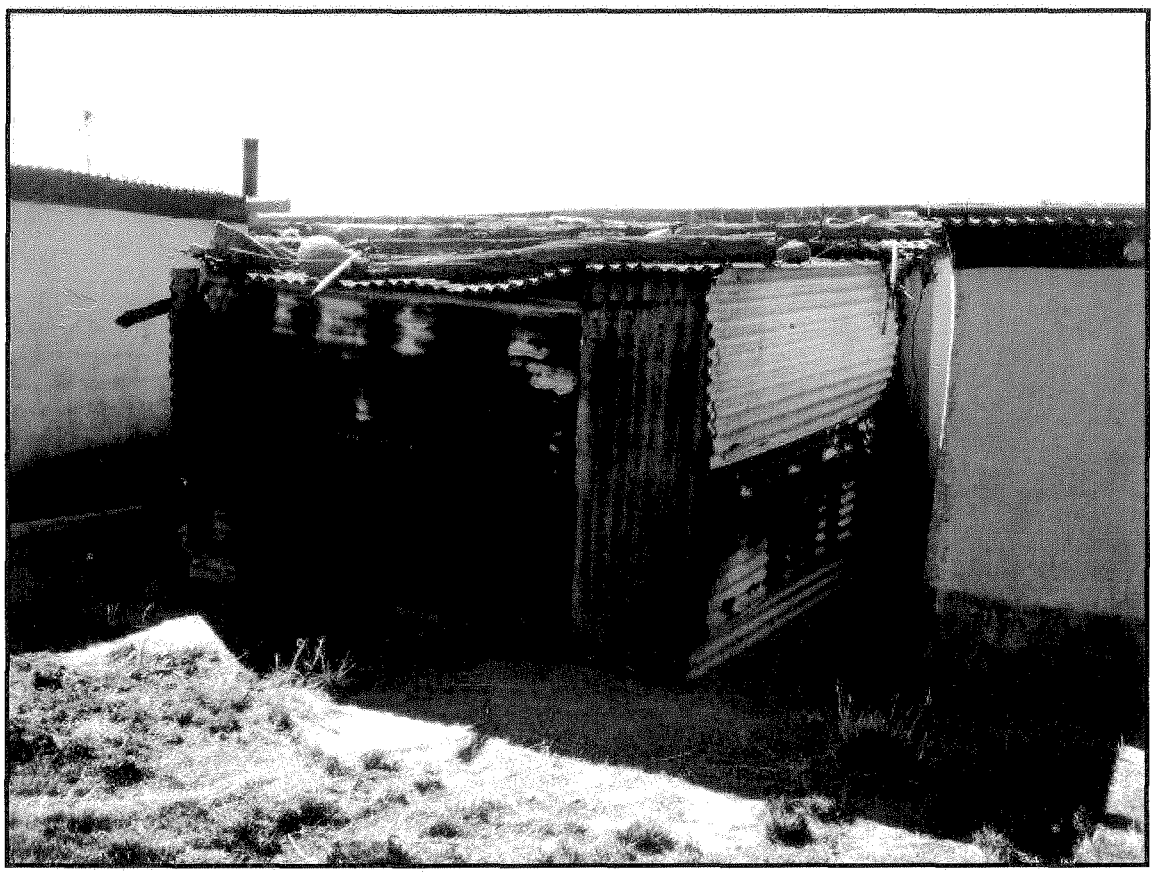


Figure 23 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Possible	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.23 Site 23

GPS: 25,88209 S 29,74382 E

A miscarriage child was buried behind the house a long time ago.

Site size: Approximately 1m x 1m

Figure 24 - View of grave site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Medium	GP.B	Possible	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.24 Site 24

GPS: 25,88442 S 29,74226 E

A set of stillborn twins were buried next to the wall of the house inside the lapa. A raised platform covered the two graves.

Site size: Approximately 1m x 2m.

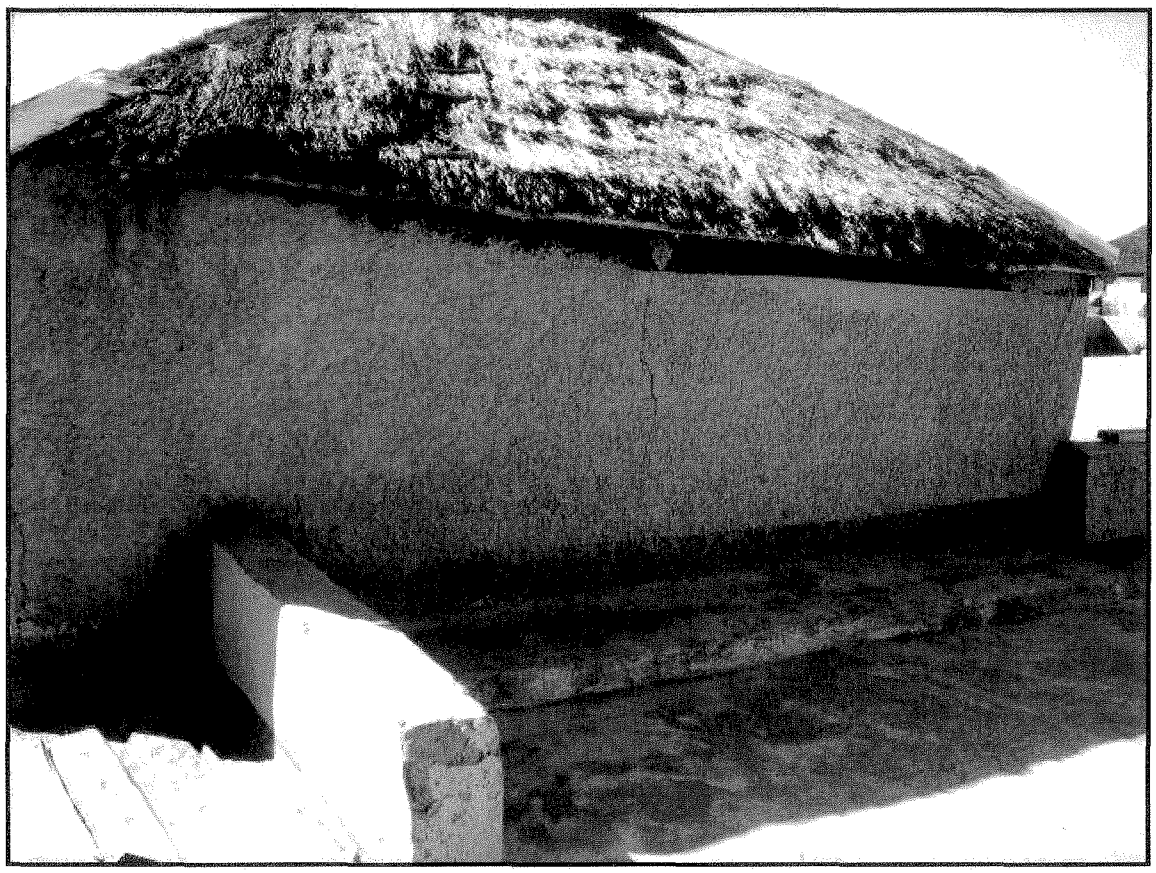


Figure 25 - View of grave

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Possible	Short term	B

Mitigation : The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.25 Site 25

GPS: 25,86495 S 29,68434 E

A small fenced informal cemetery with approximately 35 graves was identified here. The cemetery was situated in between the farm boundary fence and a ploughed field. The graves were placed in several lines and were orientated from east to west. Four of the graves had formal granite dressings and headstones, 13 had rectangular shaped brick and cement outlines as dressings with headstones and the other graves had informal stone packed dressings. Most of the graves were overgrown with grass.

Site size: Approximately 30m x 30m.

Figure 26 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.26 Site 26

GPS: 25,86865 S 29,73350 E

An old farm house with its relevant outbuildings was identified at this location. The house was constructed with local sandstone. The house with the outbuildings was restored, maintained and occupied by the current owner. According to the owner the original house was approximately 100 years old.

Refer to **Annexure C** for information letter received from SAHRA on these structures.

The Archival study in Annexure D indicates a possible date of construction after 1910.

Site size: Approximately 100m x 100m.

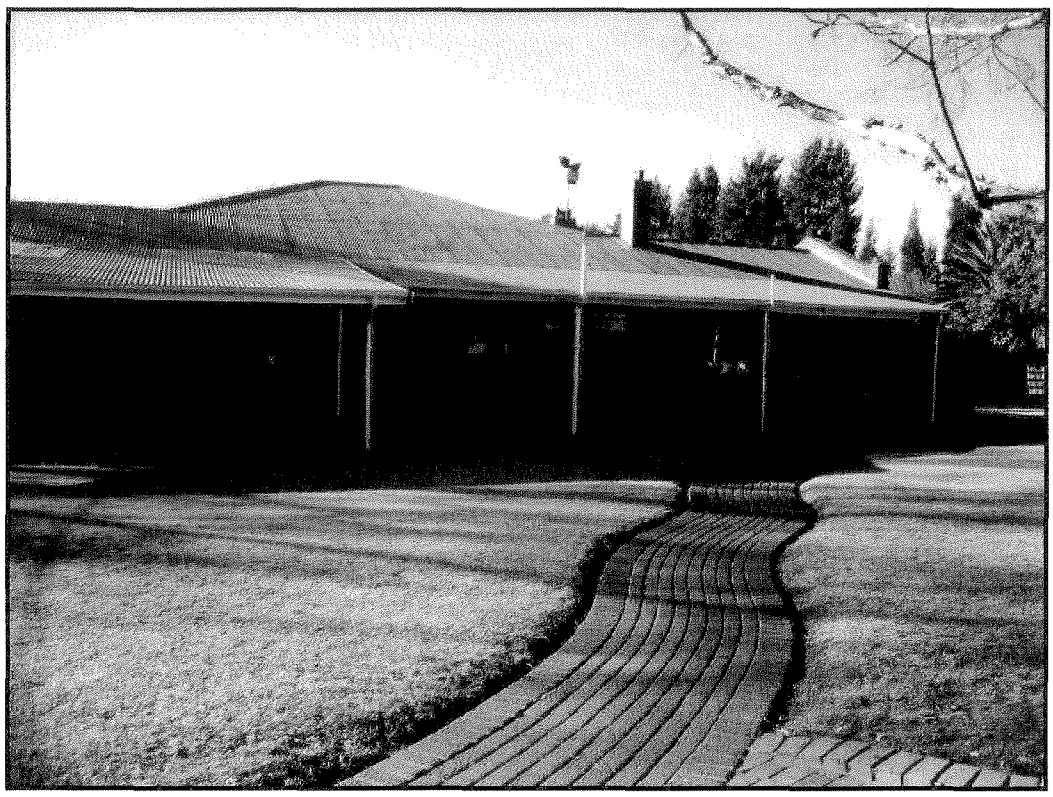


Figure 27 - View of main house

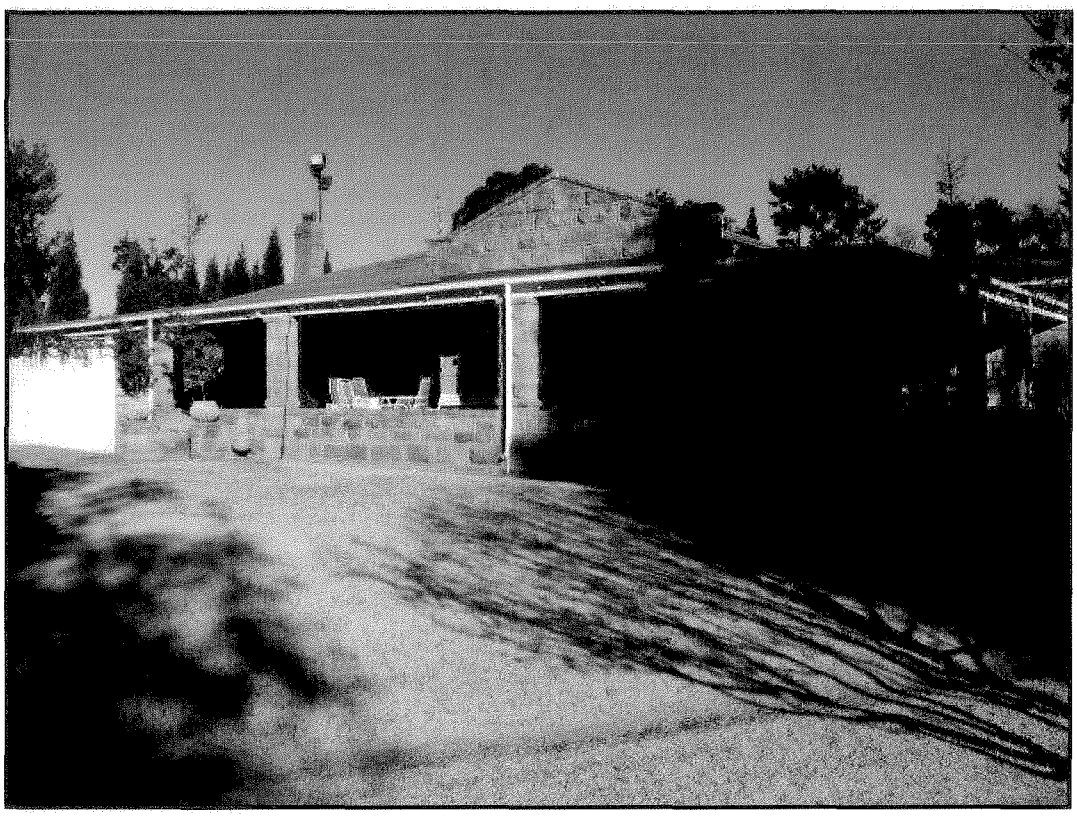


Figure 28 - View of main house from side angle

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.B	Unsure	Short term	C

Mitigation: The mining plan indicates opencast mining activity in this area. If the mining impact will have a direct impact it is recommended that the site be evaluated by a conservation architect for further specific recommendations.

5.27 Site 27

GPS: 25,86477 S 29,72370 E

A small fenced informal cemetery with approximately 55 graves was identified here. The graves were placed in several lines and were orientated from east to west. 15 of the graves had formal cement and granite dressings and the other graves had informal stone packed dressings. Most of the graves had grave goods placed on the dressings. The cemetery was partially cleaned, but most of the graves were overgrown with grass.

Site size: Approximately 30m x 30m

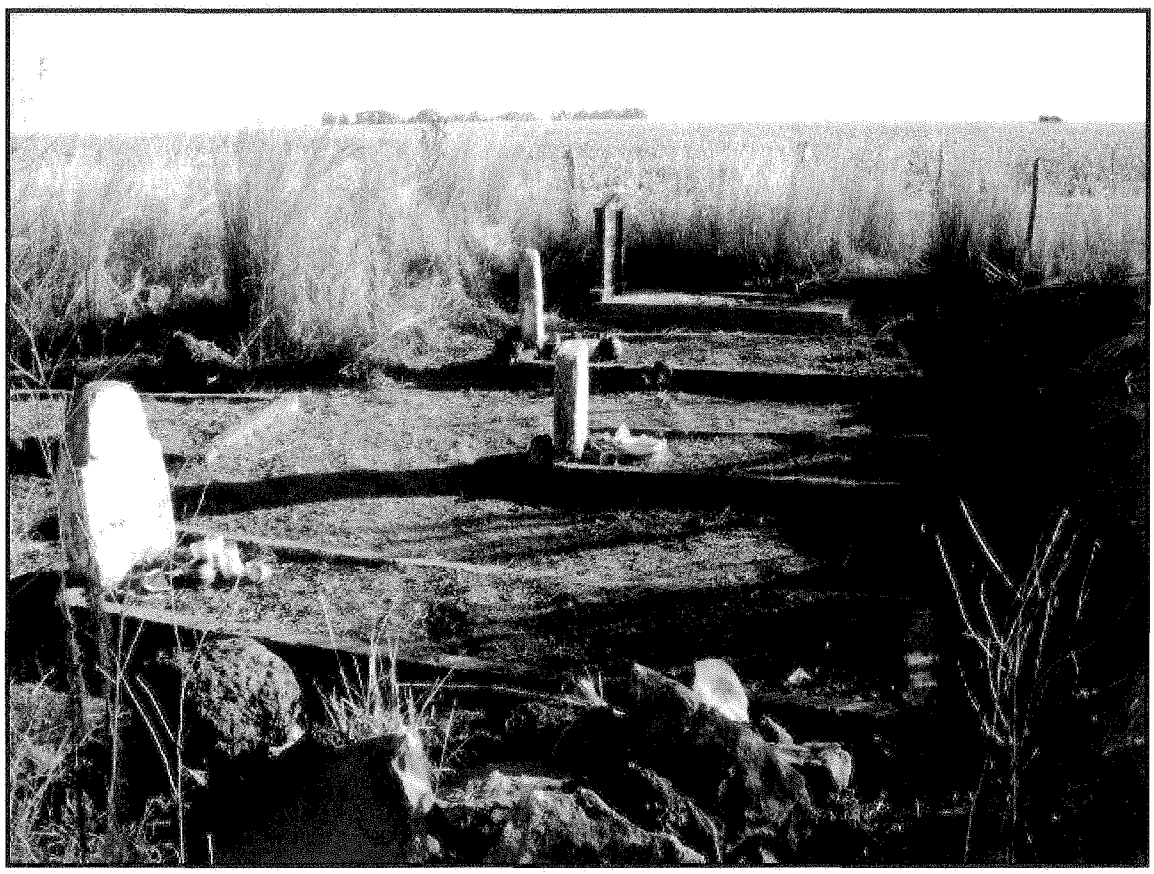


Figure 29 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.28 Site 28

GPS: 25,87163 S 29,71016 E

The quarry where the sandstone for the farm house (***Site 26***) came from was situated here. The quarry was most probably utilized during the early 1900's.

Site size: Approximately 200m x 400m

Figure 30 - View of site

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Medium	GP.B	Probable	Short term	B

Mitigation: The site needs to be documented in conjunction with ***Site 26*** if to be impacted on by mining

5.29 Site 29

GPS: 25,88141 S 29,71950 E

An infant was buried in the corner of the wall of the house and a connecting lapa wall. The grave was on the outside of the lapa. Another child was buried at the back of the house.

Site size: 2 x 1m x 1m.

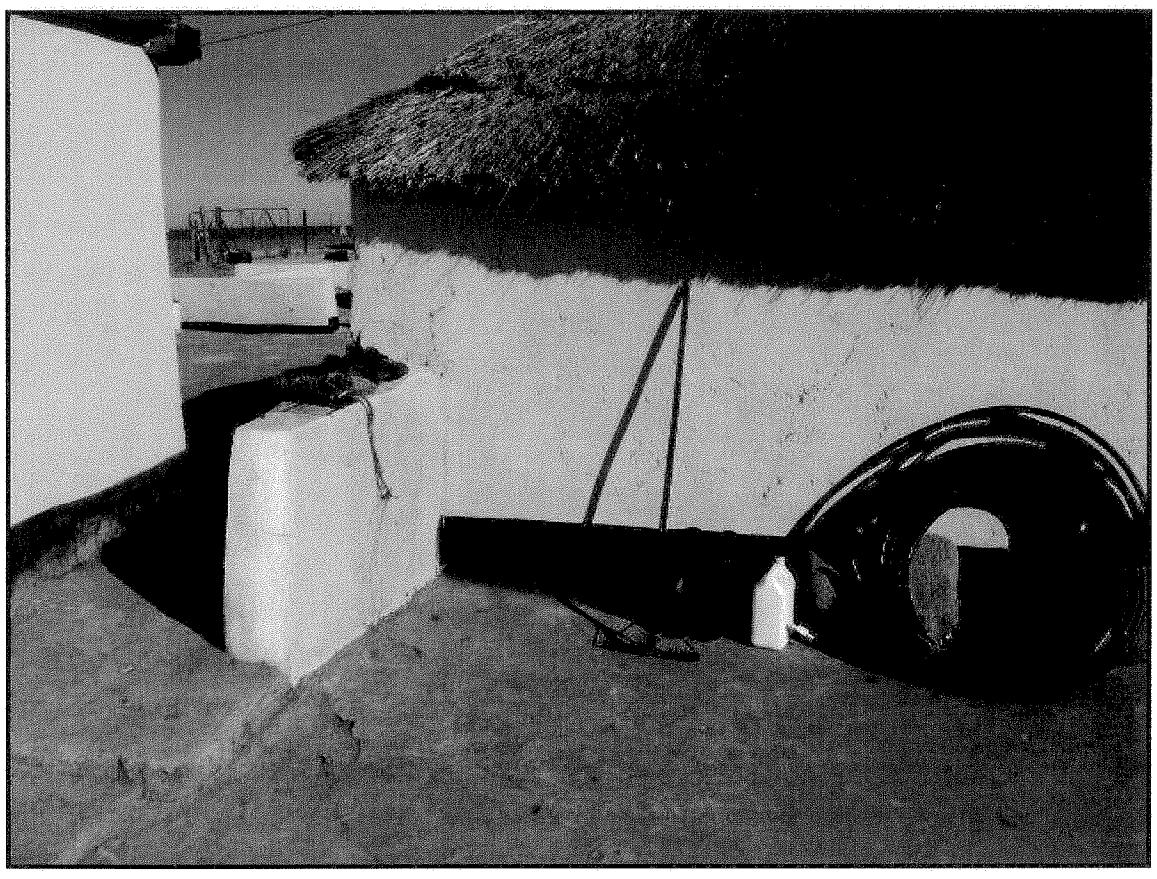


Figure 31 - View of grave position

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.30 Site 30

GPS: 25,88429 S 29,71473 E

A small informal, fenced cemetery with approximately 25 graves was identified at this location. Some of the graves were orientated from east to west and others were orientated from north to south. Four of the graves had formal granite and cement headstones and dressings and the rest had informal stone packed dressings. The cemetery and the graves were overgrown with grass.

Site size: Approximately 20m x 20m.

Figure 32 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.31 Site 31

GPS: 25,88586 S 29,71754 E

A stillborn child was buried underneath the floor of the room.

Site size: Approximately 1m x 1m.

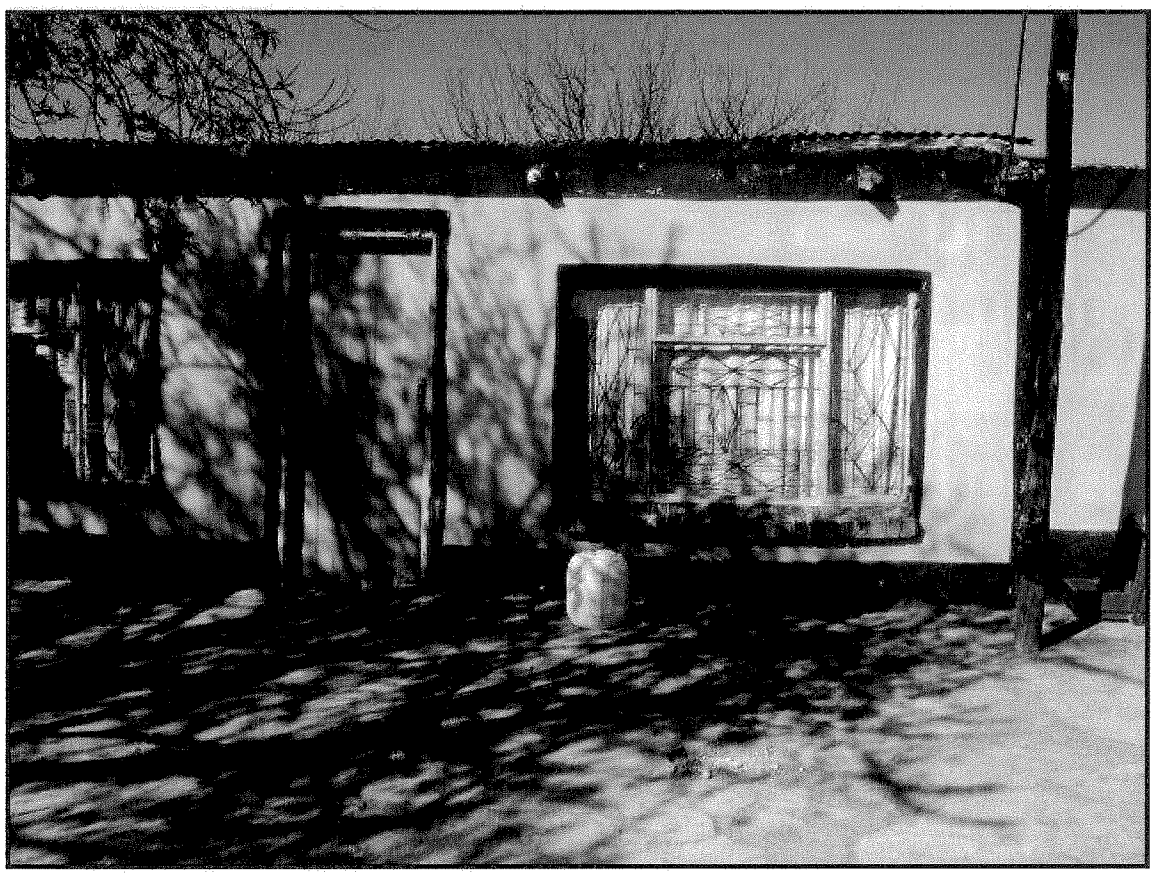


Figure 33 - View of grave position

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.32 Site 32

GPS: 25,88663 S 29,71729 E

Two formal graves were identified at this location. The graves were fenced, situated next to each other and were orientated from east to west. The graves belonged to the Van Eeden family and both were slightly damaged.

Site size: Approximately 4m x 4m

Figure 34 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.33 Site 33

GPS: 25,88990 S 29,71794 E

An infant was buried next to the house.

Site size: Approximately 1m x 1m

Figure 35 - View of grave position

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Medium	GP.B	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.34 Site 34

GPS: 25,89107 S 29,71741 E

A cluster of five informal graves was identified here. The graves were found in the middle of a ploughed field. The graves were placed in a haphazard fashion and were orientated from east to west. The stone packed informal dressings of the graves were damaged/disturbed most probably due to the ploughing activities around them. They were also overgrown with grass.

Site size: Approximately 10m x 10m

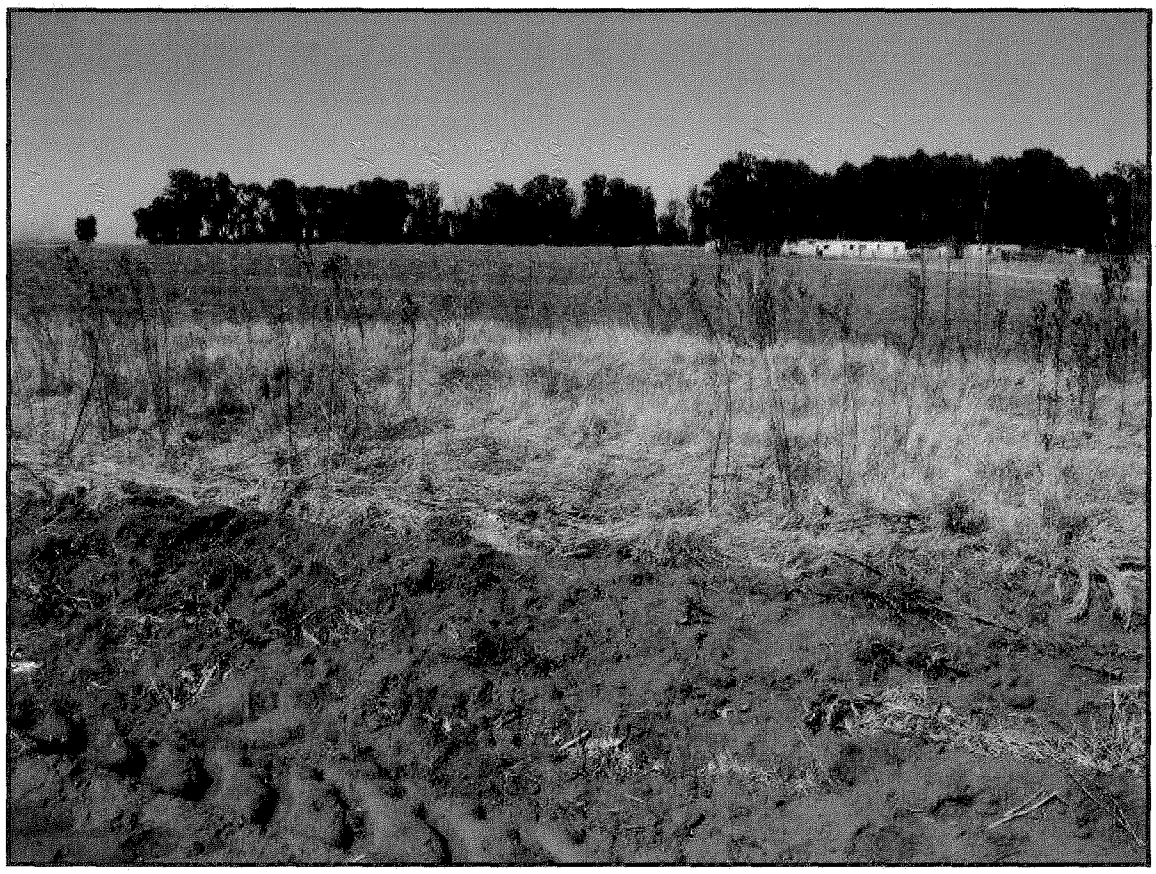


Figure 36 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Unsure	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.

5.35 Site 35

GPS: 25,89289 S 29,71804 E

A single informal grave was identified at this location. The grave was found in a ploughed field. The grave was orientated from east to west and had an informal stone packed dressing. A big rock was placed upright at the western end to serve as headstone. It was also overgrown with grass.

Site size: Approximately 1m x 2m.

Figure 37 - View of cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A	Probable	Short term	B

Mitigation: The mining plan indicates opencast mining activity in this area. Mitigation of this site will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the grave be relocated after a full grave relocation process that includes comprehensive social consultation.

5.36 Site 36

GPS: 25.90786S 29.74041E

The informal cemetery consisting of four graves arranged in one north/south aligned row. The cemetery was situated on the farm Bosmansspruit 459 JS in a field and was surrounded by a stand of wattle trees.

Site size: Approximately 20m x 20m.

Figure 38 - View of grave in cemetery

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	High	GP.A		Permanent	

Mitigation: The cemetery was relocated in November 2006 by Professional Grave Solutions (Pty) Ltd under SAHRA permit no. 80/06/06/007/51. Refer to permit attached as **Annexure D.**

5.37 Ndebele Painted houses

The study area has numerous clusters of Ndebele mural work. These cluster are situated in the areas where the current communities are designated for relocation due to the proposed Kwagga North Mining Project. These mural works is very unique and of major importance as tangible and intangible heritage. Van Vuuren(2008) notes that,

"The Ndebele of South Africa has captivated the world with their specific style of mural art and bead work. This mostly geometrical, multi-coloured and visually inspiring style of wall painting has drawn the attention of both the popular media and academic scholarship since the 1950s (Bakker & Van Vuuren 2004: 124). Elaborative glass bead work on aprons, necklaces, anklets and armbands which are worn during community ritual formed and integrated artistic and stylistic unit with their mural art. Themes and motifs on vertical wall surfaces were often duplicated on beaded aprons."

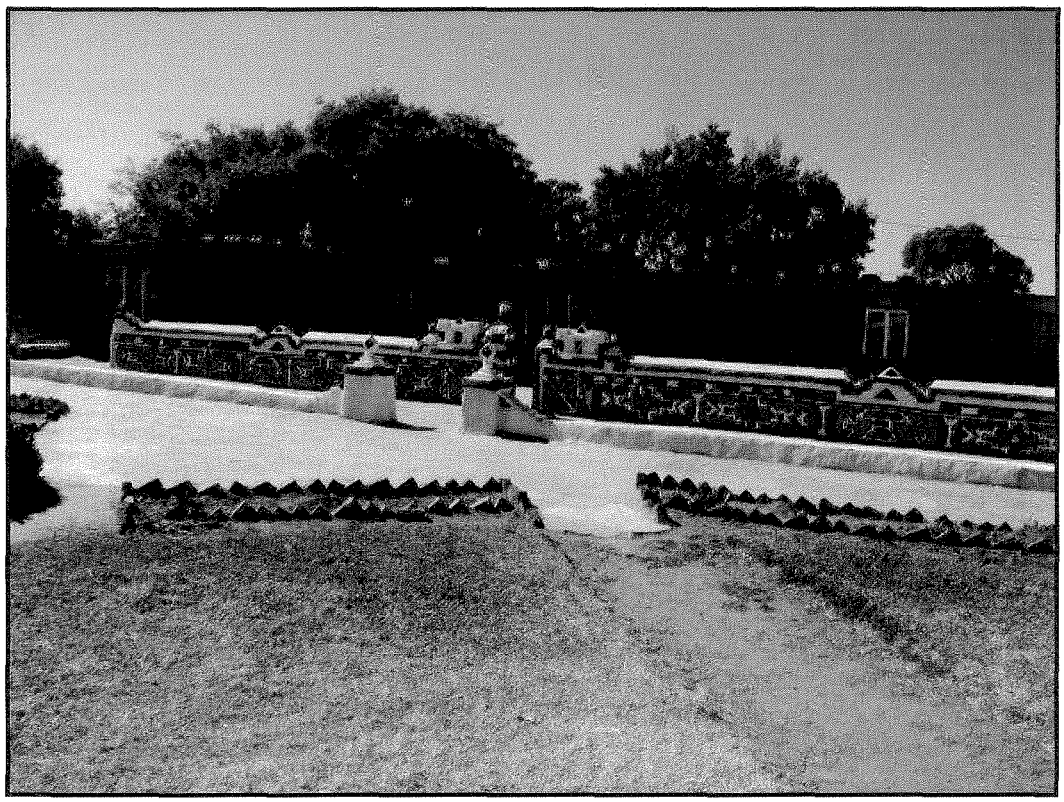


Figure 39 - View of painted murals

These murals are one of the major themes studied by Van Vuuren in the link between tangible (mural) and the intangible (tribal identity and gender classification).

Persons like Lettie Mabena, who is living in the study area, is well-known for their art and is commissioned to do work in the major cities in South Africa.

(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(b) the construction of a bridge or similar structure exceeding 50m in length;
(c) any development or other activity which will change the character of a site-
  (i) exceeding 5 000 m^2 in extent; or
  (ii) involving three or more existing erven or subdivisions thereof; or
  (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
(d) the re-zoning of a site exceeding 10 000 m^2 in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

In the event that an area previously not included in an archaeological or cultural resources survey, is to be disturbed, the South African Heritage Resources Agency (SAHRA) needs to be contacted. An enquiry must be lodged with them into the necessity for a Heritage Impact Assessment.

2. In the event that a further heritage assessment is required it is advisable to utilise a qualified heritage practitioner preferably registered with the Cultural Resources Management Section (CRM) of the Association of Southern African Professional Archaeologists (ASAPA).
  This survey and evaluation must include:
  (a) The identification and mapping of all heritage resources in the area affected;
  (b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6 (2) or prescribed under section 7 of the National Cultural Resources Act;
  (c) an assessment of the impact of the development on such heritage resources;
  (d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
  (e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
  (f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
  (g) plans for mitigation of any adverse effects during and after the completion of the proposed development.
3. It is advisable that an information section on cultural resources be included in the SHEQ training given to contractors involved in surface earthmoving activities. These sections must include basic information on:
  a. Heritage;
  b. Graves;
  c. Archaeological finds; and
  d. Historical Structures;
  This module must be tailor made to include all possible finds that could be expected in that area of construction.

4. In the event that a possible find is discovered during construction, all activities must be halted in the area of the discovery and a qualified archaeologist contacted.
5. The archaeologist needs to evaluate the finds on site and make recommendations towards possible mitigation measures.
6. If mitigation is necessary, an application for a rescue permit must be lodged with SAHRA.
7. After mitigation an application must be lodged with SAHRA for a destruction permit. This application must be supported by the mitigation report generated during the rescue excavation. Only after the permit is issued may such a site be destroyed.
8. If during the initial survey sites of cultural significance is discovered, it will be necessary to develop a management plan for the preservation, documentation or destruction of such site. Such a program must include a *watching brief*, timeframe and agreed upon schedule of actions between the company and the archaeologist.
9. In the event that human remain are uncovered or previously unknown graves are discovered a qualified archaeologist needs to be contacted and an evaluation of the finds made.
10. If the remains are to be exhumed and relocated, the relocation procedures as accepted by SAHRA needs to followed. This includes an extensive social consultation process.

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

The purpose of a watching brief is:

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

Professional Grave Solutions – Heritage Unit can be contacted on the way forward in this regard.

8.2 Roles and responsibilities

ROLE	RESPONSIBILITY	IMPLEMENTATION
A responsible specialist needs to be allocated and should sit in at all relevant meetings, especially when changes in design are discussed, and liaise with SAHRA	The client	Archaeologist and a competent archaeology supportive team
If chance finds and/or graves or burial	The client	Archaeologist and a

grounds are identified during construction or operational phases, a specialist must be contacted in due course for evaluation.		competent archaeology supportive team
Comply with defined national and local cultural heritage regulations on management plans for identified sites;	The client	Environmental Consultancy and the Archaeologist
Consult the managers, local communities and other key stakeholders on mitigation of archaeological sites;	The client	Environmental Consultancy and the Archaeologist
Implement additional programs, as appropriate, to promote the safeguarding of our cultural heritage. (i.e. integrate the archaeological components into employee induction course)	The client	Environmental Consultancy and the Archaeologist,
If required, conservation or relocation of burial grounds and/or graves according to the applicable regulations and legislation	The client	Archaeologist, and/or competent authority for relocation services
Ensure that recommendations made in the Heritage Report are adhered by	The client	The client
Provision of services and activities related to the management and monitoring of significant archaeological sites	The client	Environmental Consultancy and the Archaeologist
After the specialist/archaeologist has been appointed, comprehensive feedback reports should be submitted to relevant authorities during each phase of development.	Client and Archaeologist	Archaeologist

Table 1: Roles and responsibilities of archaeological and heritage management

9. Impact Management

9.1.1 Pre-construction phase

Based on the findings of the Heritage Report, all stakeholders and key personnel should undergo an archaeological induction course during this phase. Induction courses generally form part of the employees' (miners') overall training and the archaeological component can easily be integrated into these training sessions. Two courses should be organised – one aimed more at managers and supervisors, highlighting the value of this exercise and the appropriate communication channels that should be followed after chance finds, and the second targeting the actual workers and getting them to recognize artefacts, features and significant sites. This needs to be supervised by a qualified archaeologist. This course should be reinforced by posters reminding operators of the possibility of finding archaeological sites.

9.1.2 Construction phase

The project will encompass a range of activities during the construction phase, including ground clearance, establishment of mining area and small scale infrastructure development associated with the opencast mining area, such as ablution facilities or small offices. Construction activities related to the mine encompass the total destruction of the land surface and subsequent to that, all cultural and natural relics located in the directly affected area will be lost.

It is possible that cultural material will be exposed during operations and feasibly may be recoverable, but this is the high-cost front of the operation, and so any delays should be minimised. Development surrounding infrastructure and construction of facilities result in significant disturbance, but construction trenches do offer a window into the past and it may be possible to rescue some of these data and materials. It is also possible that substantial alterations are implemented during this phase of the project and these must be catered for. Temporary infrastructure are often changed or added to the subsequent history of the project. In general these are low impact developments as they are superficial, resulting in little alteration of the land surface, but still need to be catered for.

During the construction phase, it is important to recognize any significant material being unearthed, making the correct judgment on which actions should be taken. A responsible archaeologist must be appointed for this commission. This person does not have to be a permanent employee, but needs to sit in at relevant meetings, for example when changes in design are discussed, and notify SAHRA of these changes. The archaeologist would inspect the site and any development recurrently, with more frequent visits to the actual workface and operational areas. In addition, feedback reports can be submitted by the archaeologist to the client and SAHRA to ensure effective monitoring. This archaeological monitoring and feedback strategy should be incorporated into the Environmental Management Plan (EMP) of the mine. Should an archaeological site or cultural material be discovered during construction (or operation), such as burials or grave sites, the project needs to be able to call on a qualified expert to make an expert decision on what is required and if necessary to carry out emergency recovery. SAHRA would need to be informed and may give advice on procedure. The developers therefore should have some sort of contingency plans so that operations could move temporarily elsewhere while the material and data are recovered. The project thus needs to have an archaeologist available to do such work.

The purpose of an archaeological monitoring programme is to provide general information to the developer with regards to management recommendations and cost estimates for the archaeological component, a specialist sub-section of the Environmental Impact Assessment (EIA) process, for the project.

Such a monitoring programme is planned for observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land where there is a possibility that archaeological deposit may be disturbed or destroyed. Its main purpose is:

- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works
- To provide an opportunity, if needed, for the monitoring archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the monitoring programme itself are not sufficient to support treatment to a satisfactory and proper standard.

- A monitoring programme is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

In essence, the objective of a monitoring programme is to establish and make available information about the archaeological resource existing on a site.

9.1.3 Operational phase

Once the mining project is up and running, the urgency to identify, document and assess archaeological and heritage resources in the opencast area declines, but does not cease. Undocumented sites are still protected by law as no permit would have been issued for their destruction. Apart from any significant changes in operation design, which call for the inclusion of an archaeologist in decision making and notification of SAHRA, there is the accumulated impact of a project on the land surface, and this could result in erosion exposing further sites. Periodic monitoring by an archaeologist and awareness promotion therefore remain tasks. The client and the archaeologist would need to draw up a schedule for this.

9.1.4 Decommissioning and closure phase

During the decommissioning and closure phase of the project, no new areas are expected to be disturbed and/or impacted. Subsequently, no additional sites of archaeological and heritage significance are expected to be impacted on during decommissioning. Furthermore, the majority of sites of archaeological and heritage significance (cultural and natural) would have been recorded and/or assessed in preceding phases. During the decommissioning and closure phase, it may be recommended that the appointed archaeologist review management procedures and ensure that effective measures were implemented. A comprehensive feedback report should be submitted by the archaeologist to the client, and SAHRA.

10. LIST OF PREPARES

Wouter Fourie, BA (Hon) Archaeology (UP) – ASAPA CRM Member – Field Director
Marko Hutten, BA (Hon) Archaeology (UP)
Polke Birkholtz, BA (Hon) Archaeology (UP)
Thomas Mulaudzi

11. REFERENCES

AUSTRALIAN HISTORIC THEMES. A Framework for use in Heritage Assessment and Management. Australian Heritage Commission. 2001.

AUSTRALIA ICOMOS. The Burra Charter (The Australian ICOMOS charter for places of cultural significance). 2002.

DOCUMENTS ON CULTURAL HERITAGE PROTECTION. 2002.

INTERNATIONAL COUNCIL OF MONUMENTS & SITE DOCUMENTS. Guidelines to the Burra Charter: Conservation Policy. 1985.

INTERNATIONAL COUNCIL OF MONUMENTS & SITE DOCUMENTS. Guidelines to the Burra Charter: Cultural Significance. 1984.

INTERNATIONAL COUNCIL OF MONUMENTS & SITE DOCUMENTS. Conventions, Charters and Guidelines. 2002.

STANDARD AND GUIDANCE FOR ARCHAEOLOGICAL DESK-BASED ASSESSMENT. 1994.

VAN VUUREN, C.J. 2008. *The intricacy of intangible cultural heritage: some perspectives on Ndebele earthen architecture*. South African Journal for Art History. volume 23, number 2, 2008: 14–24

ANNEXURE A:
Legislation , Terminology and Assessment Criteria

LEGISLATIVE REQUIREMENTS – TERMINOLOGY AND ASSESSMENT CRITERIA

1.1 Legislation

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

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

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

i. National Environmental Management Act (NEMA) Act 107 of 1998
    a. Basic Environmental Assessment (BEA) – Section (23)(2)(d)
    b. Environmental Scoping Report (ESR) – Section (29)(1)(d)
    c. Environmental Impacts Assessment (EIA) – Section (32)(2)(d)
    d. Environmental Management Plan (EMP) – Section (34)(b)
ii. National Heritage Resources Act (NHRA) Act 25 of 1999
    a. Protection of Heritage resources – Sections 34 to 36; and
    b. Heritage Resources Management – Section 38
iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
    a. Section 39(3)
iv. Development Facilitation Act (DFA) Act 67 of 1995
    a. The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31.

1.2 Terminology

Acronyms	***Description***
AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
CRM	Cultural Resource Management
DEAT	Department of Environmental Affairs and Tourism
DWAF	Department of Water Affairs and Forestry
EIA practitioner	Environmental Impact Assessment Practitioner
EIA	Environmental Impact Assessment
ESA	Early Stone Age
GPS	Global Positioning System
HIA	Heritage Impact Assessment
I&AP	Interested & Affected Party
LSA	Late Stone Age
LIA	Late Iron Age
MSA	Middle Stone Age
MIA	Middle Iron Age

NEMA	National Environmental Management Act
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Agency
PSSA	Palaeontological Society of South Africa
ROD	Record of Decision
SADC	Southern African Development Community
SAHRA	South African Heritage Resources Agency

Archaeological resources

This includes:

i. material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
ii. rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
iii. wrecks, being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
iv. features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

Cultural significance

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

Development

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

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

Heritage resources

This means any place or object of cultural significance

2. ASSESSMENT CRITERIA

This chapter describes the evaluation criteria used for the sites listed below.
The significance of archaeological sites was based on four main criteria:

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

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:
A - No further action necessary;
B - Mapping of the site and controlled sampling required;
C - Preserve site, or extensive data collection and mapping of the site; and
D - Preserve site

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

2.1 IMPACT

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

2.1.1 Nature and existing mitigation

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

2.2 EVALUATION

2.2.1 Site Significance

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

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

Generally Protected C (GP.C)	-	Low Significance	Destruction

2.2.2 Impact Rating

VERY HIGH

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or social) environment, and usually result in **severe** or **very severe** effects, or **beneficial** or **very beneficial** effects.

Example: The loss of a species would be viewed by informed society as being of VERY HIGH significance.

Example: The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with a VERY HIGH significance.

HIGH

These impacts will usually result in long term effects on the social and/or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

Example: The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

Example: The change to soil conditions will impact the natural system, and the impact on affected parties (in this case people growing crops on the soil) would be HIGH.

MODERATE

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by society as constituting a fairly important and usually medium term change to the (natural and/or social) environment. These impacts are real but not substantial.

Example: The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

Example: The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

LOW

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by the public and/or the specialist as constituting a fairly unimportant and usually short term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

Example: The temporary change in the water table of a wetland habitat, as these systems is adapted to fluctuating water levels.

Example: The increased earning potential of people employed as a result of a development would only result in benefits of LOW significance to people who live some distance away.

NO SIGNIFICANCE

There are no primary or secondary effects at all that are important to scientists or the public.

Example: A change to the geology of a particular formation may be regarded as severe from a geological perspective, but is of NO significance in the overall context.

2.2.3 Certainty

DEFINITE: More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.
PROBABLE: Over 70% sure of a particular fact, or of the likelihood of impact occurring.
POSSIBLE: Only over 40% sure of a particular fact or of the likelihood of an impact occurring.
UNSURE: Less than 40% sure of a particular fact or likelihood of an impact occurring.

2.2.4 Duration

SHORT TERM: 0 to 5 years
MEDIUM: 6 to 20 years
LONG TERM: more than 20 years
DEMOLISHED: site will be demolished or is already demolished
Example
Evaluation

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Moderate	Grade GP.B	Possible	Short term	B

3. LEGAL AND POLICY REQUIREMENTS

3.1 General principles

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

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In the new legislation, permits are required to damage, destroy, alter, or disturb them. People who already possess material are required to register it. The management of heritage resources are integrated with environmental resources and this means that before development takes place heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves, which are older than 60 years and are not in a cemetery (such as ancestral graves in rural areas), are protected. The legislation protects the interests of communities that have interest in the graves: they may be consulted before any disturbance takes place. The graves of victims of conflict and those associated with the liberation struggle will be identified, cared for, protected and memorials erected in their honour.

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

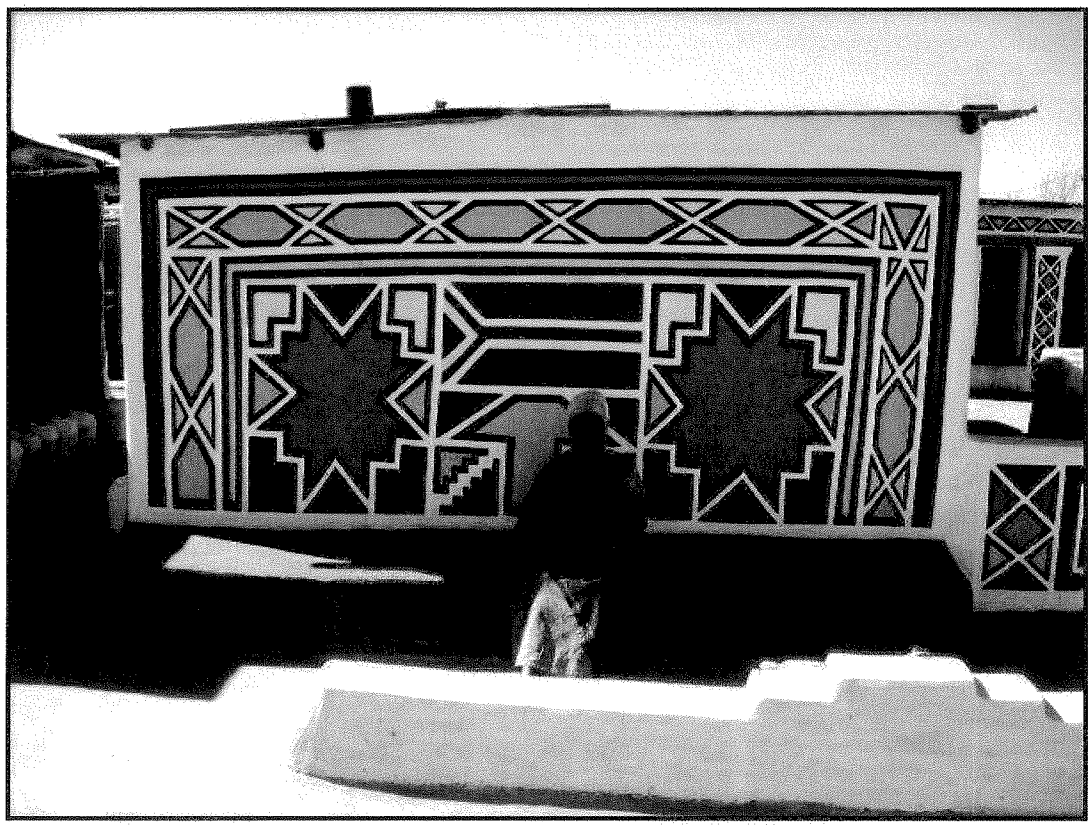


Figure 40 - View of mural with Ms Lettie Mabena

Due to the intricacies associated with the evaluation of intangible heritage and the link with architecture the following recommendations are made, with regards to the houses and painted mural sin the study area:

- A specialist on the study of the Ndebele culture and the painted murals must be commissioned to document the oral history, settlement patterns and social structures of the settlements to be able to develop a structured documentation of the tangible and intangible heritage of the people and settlements and make further recommendations;
- The physical layout of the settlements clusters must be documented and layout sketches made in conjunction with a conservation architect;
- The ages of the settlements must be determined and if older than 60 years, a destruction permit under Section 34 of the NHRA will be required form the Mpumalanga PHRA.

6. ASSUMPTIONS AND LIMITATIONS

Not subtracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the area. Various factors account for this, including the subterranean nature of some archaeological sites and the current dense vegetation cover. As such, should any heritage features and/or objects not included in the present inventory be located or observed, a heritage specialist must immediately be contacted. Such observed or located heritage features and/or objects may not be disturbed or removed in any way until such time that the heritage specialist had been able to make an assessment as to the significance of the site (or material) in question. This applies to graves and cemeteries as well. In the foregoing discussion the long history of occupation of the region by black farmer communities has also been pointed out. In the event that any graves or burial places are located during the development the procedures and requirements pertaining to graves and burials will apply as set out below.

7. ASSESSMENT AND RECOMMENDATIONS

*A heritage map is provided in **Annexure B***

During the survey 36 sites of heritage significance were identified.

The heritage sites consist of 29 cemeteries with a total of approximately 350 graves, 6 farmsteads and one quarry site.

As most of the heritage sites will be impacted by the mining activities and the current relocation process of the communities currently on the land id in progress - it is recommended that the mitigation measures relating to the heritage structures be implemented while the communities are still present on the property.

The following mitigations measures are recommended for the heritage site identified where they are to be impacted by the mining project.

Graves and Cemeteries

Mitigation of these sites will require a fence around the cemetery with a buffer of at least 10 meters. If the mining impact will have a direct impact it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation. The grave relocation process must include:

- A detailed social consultation process, that will trace the next-of-kin and obtain their consent for the relocation of the graves, that will be at least 60 days in length;
- Site notices indicating the intent of the relocation
- Newspaper Notice indicating the intent of the relocation
- A permit from the local authority;
- A permit from the Mpumalanga Department of health;
- A permit from the South African Heritage Resources Agency if the graves are older than 60 years or unidentified and thus presumed older than 60 years;
- An exhumation process that keeps the dignity of the remains and family intact;

- An exhumation process that will safeguard the legal implications towards the mining company;
- The whole process must be done by a reputable company that are well versed in relocations;
- The process must be conducted in such a manner as to safeguard the legal rights of the families as well as that of the mining company.

Houses and Farmsteads

If the mining impact will be direct and the destruction of the site will be required a destruction permit under Section 34 of the NHRA will be required. This permit will only be granted after the site has been documented in its entirety by layout sketches of each structure and the farmstead layout, photographic documentation and historical background of the farmstead.

Ndebele Murals and settlement clusters

Due to the intricacies associated with the evaluation of intangible heritage and the link with architecture the following recommendations are made, with regards to the houses and painted mural sin the study area:

- A specialist on the study of the Ndebele culture and the painted murals must be commissioned to document the oral history, settlement patterns and social structures of the settlements to be able to develop a structured documentation of the tangible and intangible heritage of the people and settlements and make further recommendations;
- The physical layout of the settlements clusters must be documented and layout sketches made in conjunction with a conservation architect;
- The ages of the settlements must be determined and if older than 60 years, a destruction permit under Section 34 of the NHRA will be required form the Mpumalanga PHRA.

The following general mitigation measures are recommended:

- When the final layout plan is established for the mine it must be assessed whether any other sites will be impacted upon by roads, services, transmissions lines etc. The appropriate mitigation measures must be employed for these sites
- A Monitoring plan or watching brief must be agreed upon by all the stakeholders for the different phases of the project. An archaeologist is employed by the developer to monitor the excavation of foundation and service trenches, landscaping and any other intrusive work. The developer undertakes to give the archaeologist sufficient time to identify and record and archaeological finds and features.
- If during construction any possible finds are made, the operations must be stopped and the qualified archaeologist be contacted for an assessment of the find.
- A heritage resources management plan must be developed for managing the heritage resources in the study area during construction and operation of the development. This includes basic training for construction staff on possible finds, action steps for mitigation measures, surface collections, excavations, and communication routes to follow in the case of a discovery.

8. MANAGEMENT GUIDELINES AND PROCEDURES

8.1 Management Guidelines

1. The National Heritage Resources Act (Act 25 of 1999) states that, any person who intends to undertake a development categorised as-

According to the National Heritage Act (Act 25 of 1999 section 32) it is stated that:
An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

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

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

3.1 Graves and cemeteries

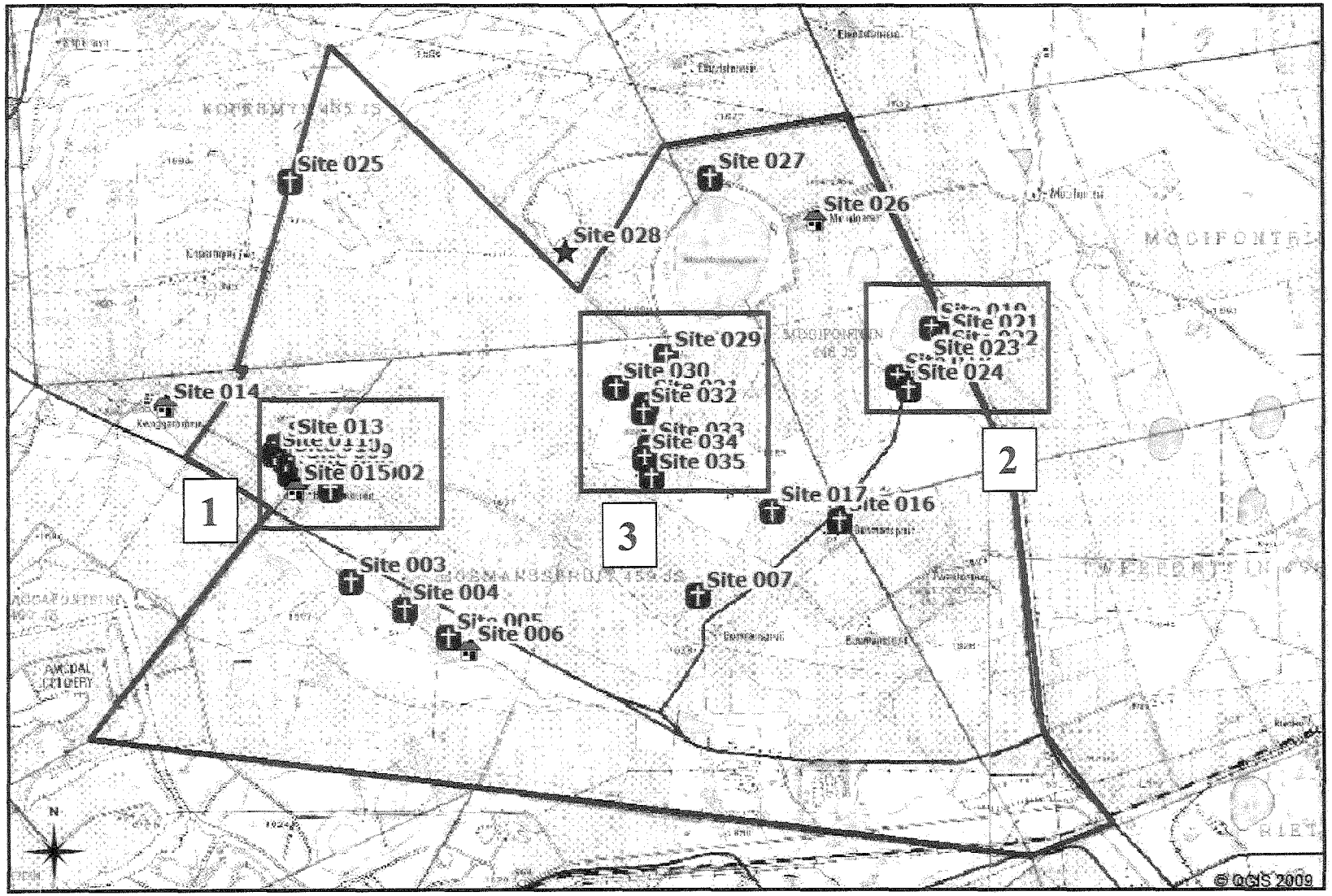
Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be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

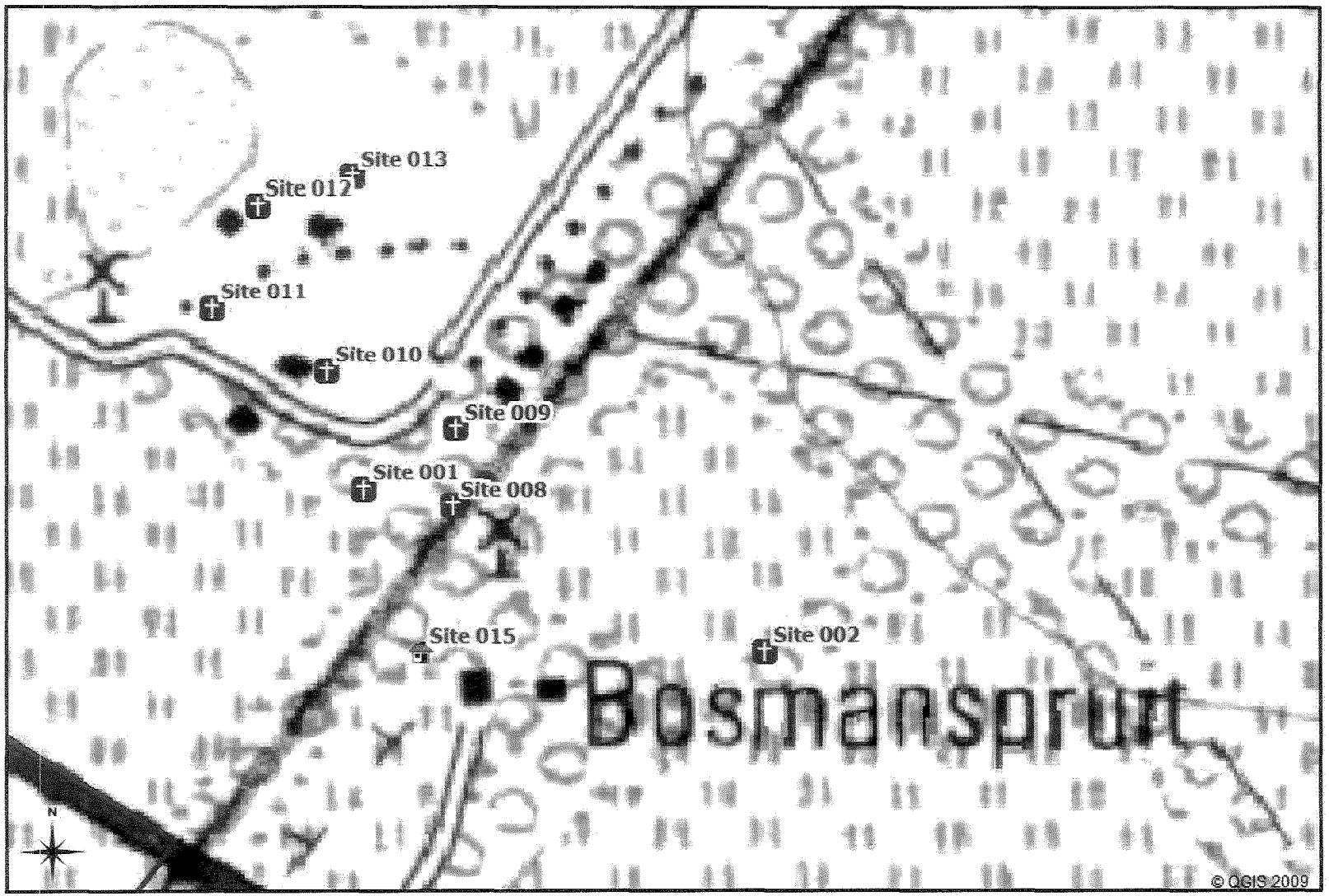
Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial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

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

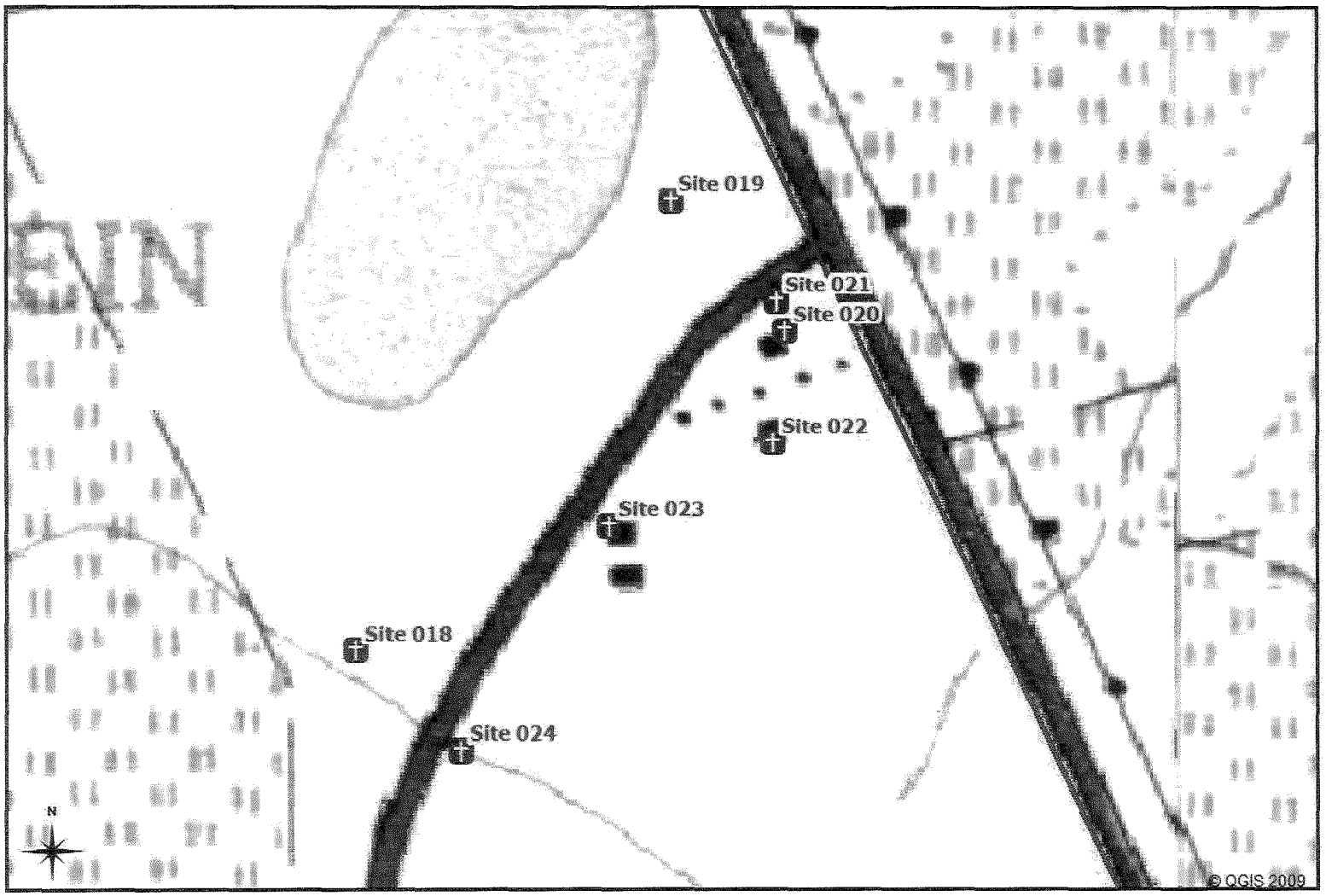
ANNEXURE B:
Heritage Sites

Site name	Y	X	Type
Site 001	-25.8925	29.68424	Cemetery
Site 002	-25.894	29.68801	Cemetery
Site 003	-25.9026	29.69	Cemetery
Site 004	-25.9052	29.69504	Cemetery
Site 005	-25.9078	29.69918	Cemetery
Site 006	-25.909	29.70108	Building
Site 007	-25.904	29.72239	Cemetery
Site 008	-25.8926	29.68508	Cemetery
Site 009	-25.8919	29.68511	Cemetery
Site 010	-25.8913	29.6839	Cemetery
Site 011	-25.8907	29.68281	Cemetery
Site 012	-25.8898	29.68324	Cemetery
Site 013	-25.8895	29.68414	Cemetery
Site 014	-25.8862	29.67254	Building
Site 015	-25.894	29.68478	Building
Site 016	-25.8969	29.73574	Cemetery
Site 017	-25.896	29.72943	Cemetery
Site 018	-25.8834	29.74118	Cemetery
Site 019	-25.8787	29.74446	Cemetery
Site 020	-25.88	29.74565	Cemetery
Site 021	-25.8797	29.74557	Cemetery
Site 022	-25.8812	29.74552	Cemetery
Site 023	-25.8821	29.74382	Cemetery
Site 024	-25.8844	29.74226	Cemetery
Site 025	-25.865	29.68434	Cemetery
Site 026	-25.8687	29.7335	Building
Site 027	-25.8648	29.7237	Cemetery
Site 028	-25.8716	29.71016	Quarry
Site 029	-25.8814	29.7195	Cemetery
Site 030	-25.8843	29.71473	Cemetery
Site 031	-25.8859	29.71754	Cemetery
Site 032	-25.8866	29.71729	Cemetery
Site 033	-25.8899	29.71794	Cemetery
Site 034	-25.8911	29.7174	Cemetery
Site 035	-25.8929	29.71804	Cemetery

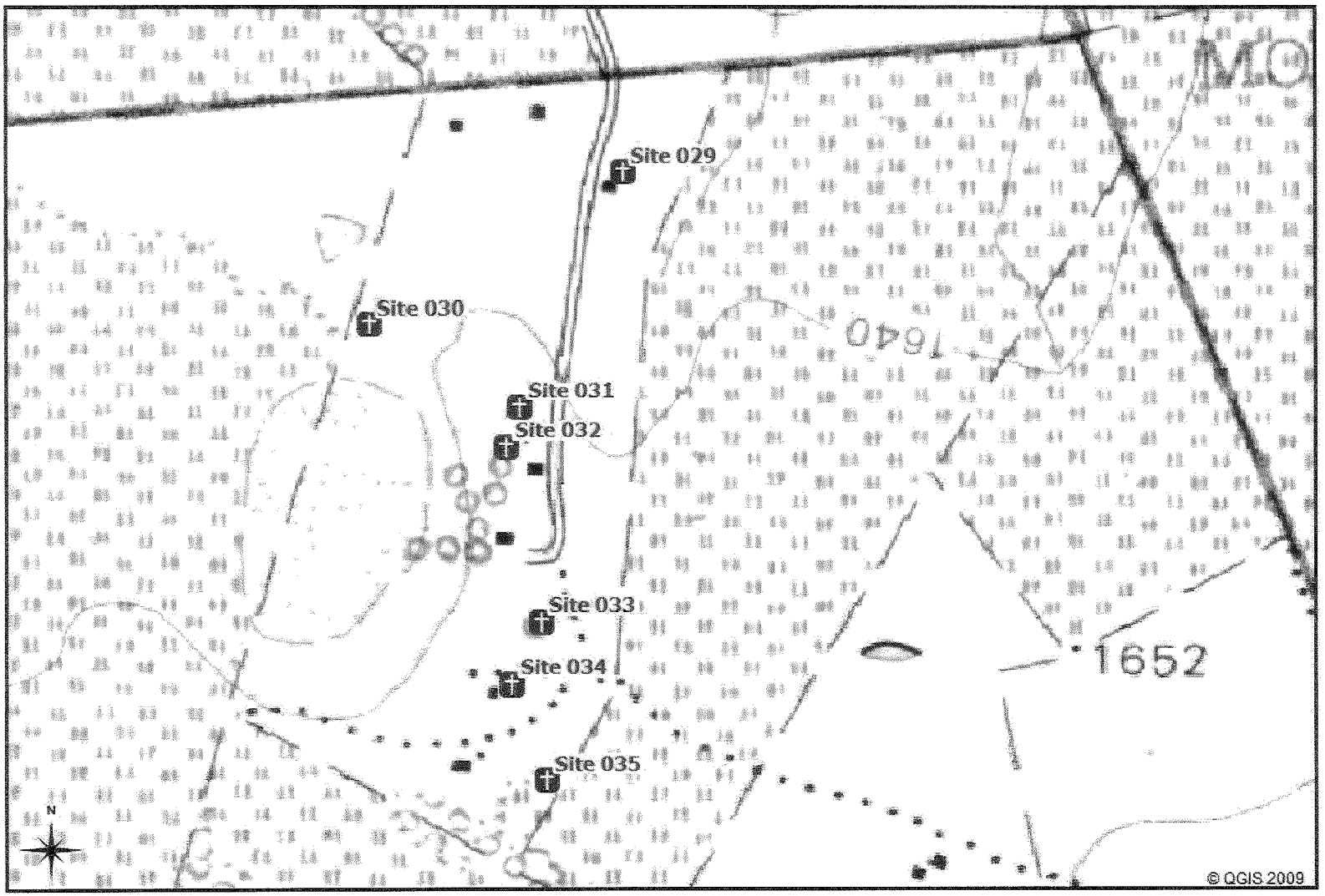

Site 025
Site 027
Site 026
Site 028
Site 029
Site 030
Site 032
Site 033
Site 034
Site 035
Site 021
Site 023
Site 024
Site 014
Site 013
Site 015
Site 017
Site 016
Site 003
Site 004
Site 006
Site 007
1
2
3
N
© CCS 2009


Site 013
Site 012
Site 011
Site 010
Site 009
Site 001
Site 008
Site 015
Site 002
Bosmansprut
N
© QGIS 2009

Cluster 1


Site 019
Site 021
Site 020
Site 022
Site 023
Site 018
Site 024
N
© QGIS 2009

Cluster 2


Site 029
Site 030
Site 031
Site 032
Site 033
Site 034
Site 035
1640
1652
N
© QGIS 2009

Cluster 3

ANNEXURE C:
Letter on Site – Cass family homestead

SOUTH AFRICAN HERITAGE RESOURCES AGENCY
18 PILGRIM STREET, BARBERTON, 1300 P. O. BOX 11004, BARBERTON, 1300
TEL: (013) 712 3050 FAX: (013) 712 6503

OUR REF: 9/2/242/25

YOUR REF:

ENQUIRIES: Mr F Erasmus

DATE: 12 February 2004

Mrs Christa Cass
P O Box 31
ARNOT
1051

Dear Christa

Historic farm dwelling: Modfontein, Middelburg District

Our site meeting on 2 February 2004 refers. Herewith written confirmation of matters discussed:

1. The sandstone structures on the farm complex are of exceptional quality and in a fine state of preservation. It appears that the oldest structures date from ca 1900 to 1930, which automatically protects them under the "60 years clause", Section 34 of Act 25 of 1999, also known as the Heritage Act.
2. This office is led to believe that a coal mining company has bought the mineral rights and proposes to mine in the area. We accordingly wish to inform you that Section 38 of the above-mentioned Act, concerning heritage resources management does apply in this instance. Enclosed please find a copy of this section for your information and further reference.
3. Kindly NOTE that this Agency strives for holistic conservation of our shared heritage. Features such as the traditional Ndzundza Ndebele dwellings, the historic "ouklip" and sandstone farm dwelling to the northeast of your house and the quarry where the sandstone for your house and perhaps others in the area was quarried, archaeological sites and graves also need to be considered when a Heritage Impact Assessment (HIA) is compiled for the area.
4. Kindly NOTE that the developer has to finance the HIA and that only professionals recognised by SAHRA may perform an HIA. Two people whom we may RECOMMEND are Dr Gerhardt de Jongh and Mr Karel Bakker of Cultmatrix. Their numbers are respectively 0825774741 and (012) 4202550.

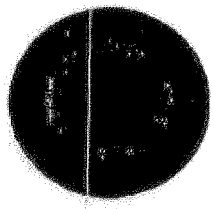
5. Please ensure that the developer is made aware of the stipulations in the above Act as it is the SAHRA's informed opinion that heritage resources will be affected by the proposed mining activity.

We trust that the above information will assist you in the optimal conservation of our shared heritage.

Yours sincerely

MANAGER: MPUMALANGA

ANNEXURE D:
SAHRA Permit for relocation of Site 36



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
111 HARRINGTON STREET, CAPE TOWN, 8000, PO BOX 4637, CAPE TOWN, 8000
TEL: (021) 462 4502 FAX: (021) 462 4509

9/2/243/0004

PERMIT
No. 80/06/06/007/51

Issued under Section 36(3) of the National Heritage Resources Act, Act No. 25 of 1999. Permission is hereby given:

to: Mr H.S. Steyn (ID: 710915526909), in association with Dr C Nienaber,
of: Professional Graves Solutions, P.O. Box 14706, Hatfield, 0028,
for: exhumation from Cemetery 7,
on: the farm Bosmansspruit 459 JS,
in: the Middelburg District, Mpumalanga Province,
and: re-interment at the Ermelo Cemetery.

The following conditions apply:

1. If the permit holder is not to be present on the site at all times then SAHRA must be provided with the names and qualifications of the authorised representatives.
2. Adequate recording methods as specified in the Regulations and Guidelines pertaining to the National Heritage Resources Act must be used. Note that the position of the grave must be marked on a plan of the site, and the site marked on a 1:50 000 map.
3. Human remains must at all times be handled with respect and graves should not be disturbed except where unavoidable. The consultation procedures as indicated in the gazetted regulations of the National Heritage Resources Act (Act No. 25 of 1999) must be observed as appropriate. The recommendations for removal of graves and exhumations and for re-burial made in SAHRA's Policy 'What to do when graves are uncovered', section 3, must be observed as far as possible.
4. A report on the excavation must be submitted to SAHRA on or before 1 July 2007.
5. Reprints of all published papers, or copies of theses or reports resulting from this work must be lodged with the relevant Provincial Heritage Resources Authority and SAHRA.
6. If a published report has not appeared within three years of the lapsing of this permit, the report required in terms of the permit will be made available to researchers on request.
7. It is the responsibility of the permit holder to obtain permission from the landowner for each visit, and conditions of access imposed by the landowner must be observed.
8. It is the responsibility of the permit holder to fill in excavations and protect sites during and after excavation to the satisfaction of the SAHRA and the landowner.
9. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.
10. SAHRA reserves the right to cancel this permit by notice to the permit holder.

This permit is valid until 1 July 2007.

For CHIEF EXECUTIVE OFFICER .....

Date: 28 June 2006 Place: Cape Town

ANNEXURE E:
Archival and Historical Desktop Study

ARCHIVAL AND HISTORICAL DESKTOP STUDY AS PART OF THE HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED KWAGGA NORTH PROJECT

HERITAGE UNIT

PGS Heritage Unit
Professional Grave Solutions (Pty) L

Tel: 012 332 5305
Fax: 012 332 2625
Cell: 082 717 6661
E-mail: polke@lantic.net

Date of report:	**Compiled by:**	
1 October 2009	P.D. Birkholtz	

1. PROJECT BACKGROUND

This archival study forms part of the Heritage Impact Assessment undertaken by *Professional Grave Solutions (Pty) Ltd* for the proposed Kwagga North Project on portions of the farms Kopermyn 435 JS, Mooifontein 448 JS, Tweefontein 458 JS, Bosmansspruit 459 JS and Kwaggafontein 460 JS. The mining company is *Optimum Coal (Pty) Ltd*.

2. CARTOGRAPHIC MATERIAL

2.1 BELFAST, MACHADODORP AND DULLSTROOM SHEET, FEBRUARY 1902

A section of the Belfast, Machadodorp and Dullstroom sheet of the Major Jackson Series is depicted in Figure 1. This map series was produced during the South African War (1899-1902) under supervision of Major H.M. Jackson of the Royal Engineers. The map was lithographed in Pretoria by the Mapping Section of the Field Intelligence Division during July 1900.

The depicted sheet is the second revised edition of the Belfast, Machadodorp and Dullstroom map and dates to February 1902.

The study area falls on the boundary between this sheet and the Ermelo sheet to the south of it. Although numerous attempts were made to obtain the Ermelo sheet, these proved unsuccessful.

The following observations can be made from the map:

- The Mooifontein farmstead did not exist at the time.
- A building (quite likely a farmstead) is depicted on the farm Kopermyn (see green arrow). It is possible that this farmstead was located in the present study area.

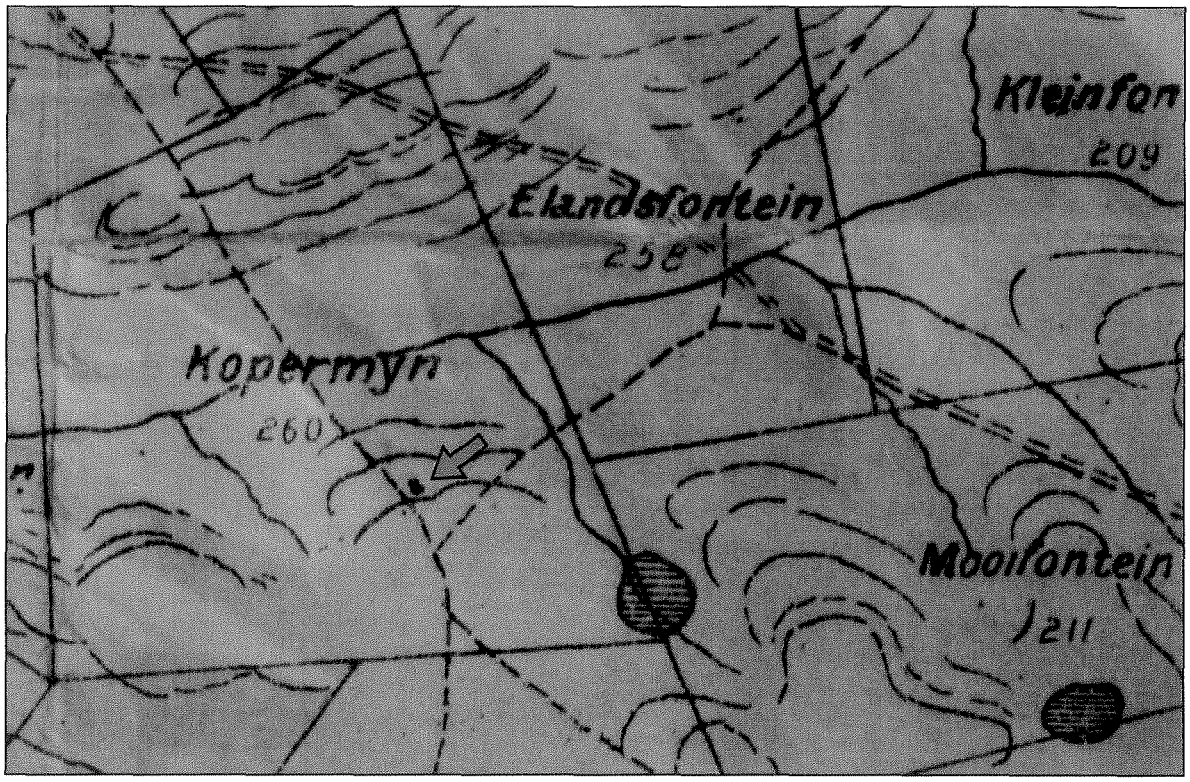


FIGURE 1 BELFAST, MACHADODORP AND DULLSTROOM SHEET OF THE MAJOR JACKSON SERIES DATED TO FEBRUARY 1902 (NATIONAL ARCHIVES, MAPS, 3/562).

2.2 2529DC TOPOGRAPHICAL SHEET (FIRST EDITION)

A section of the First Edition of the 2529DC Topographical Sheet is depicted in Figure 2. The aerial photography on which the map was based dates to 1964 and its survey work was undertaken in 1967. It was drawn in 1968 by the Trigonometrical Survey Office. The following observations can be made from the map:

The farm Mooifontein

- Feature 1

  A cluster of six huts are shown south-by-southeast of the farmstead. It can be assumed that these huts were the accommodation used by farm workers.

  .

- Feature 2

  The farmstead is depicted and comprises five buildings.

The farm Kopermyn

- Feature 3

  A dispersed group of eight huts represents the only heritage feature on that section of the farm which falls within the present study area. It can be assumed that these huts were the accommodation used by the farm workers of Kopermyn.

The farm Kwaggasfontein

- Feature 4

  Two huts are depicted on the section of the farm falling within the study area.

The farm Bosmansspruit

- Feature 5

  A farmstead is located here which comprises two buildings. It is associated with five huts. These huts were likely farm worker accommodation.

- Feature 6

  A farmstead is located here which comprises one building. It is associated with nine huts. These huts were likely farm worker accommodation.

- Feature 7

  A farmstead is located here and comprises two buildings. It is associated with four huts. These huts were likely farm worker accommodation.

- Feature 8

  A farmstead is located here and comprises one building. It is associated with five huts. These huts were likely farm worker accommodation.

- Feature 9

  A single hut is depicted here.

- Feature 10

  A shed associated with six huts are depicted here.

- Feature 11

  A farmstead is located here and comprises one building. It is associated with four huts. These huts were likely farm worker accommodation.

- Feature 12

  A dispersed cluster of 11 huts is depicted here.

The farm Tweefontein

- Feature 13

  A farmstead is located here which comprises two buildings. It is associated with two huts. These huts were likely farm worker accommodation.

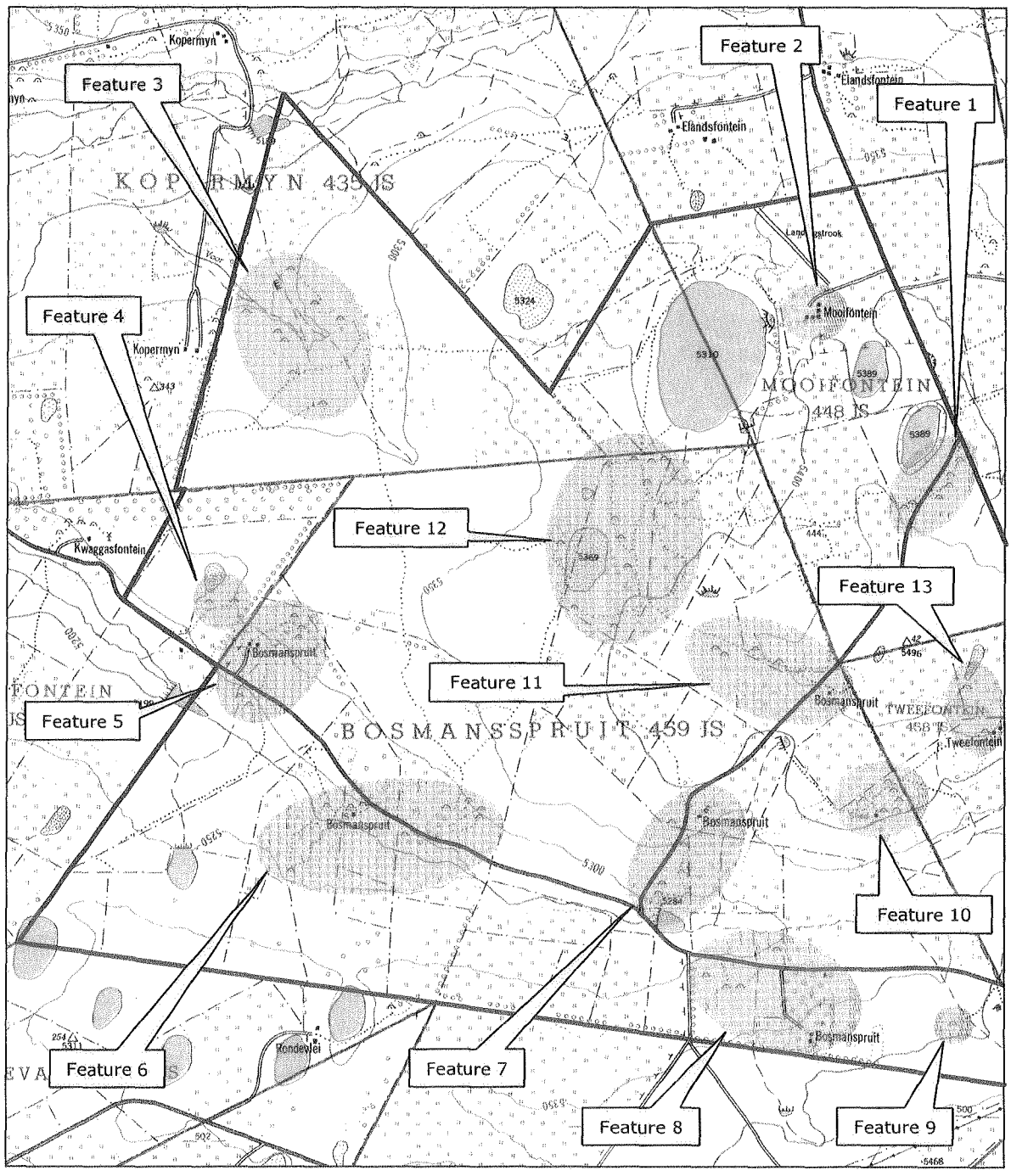


Figure 2 First Edition of the 2529DC Topographical Sheet dated to 1967.

3. FARM OWNERSHIP HISTORIES

3.1 MOOIFONTEIN

The farm Mooifontein 448 JS (old number 211) was first inspected on the 24th of January 1868 by S.P. Botha. On the 16th of July 1869 it was transferred to its first owner, Petrus Johannes van Wijngaard. On the 13th of September 1869 the farm was transferred from Van Wijngaard to Christina Johanna Hendrikz (assisted by her husband Hendrik Foke Hendrikz). On the very same day (13 September 1869) the farm was first transferred to Samuel Christiaan George Wemmer and then to Samuel Veith Oertel. Oertel remained in possession of the farm for just under nine years when on the 26th of July 1888 it was transferred from him to Andries Stephanus Ecksteen. On the 23rd of July 1891 the farm was transferred from A.S. Ecksteen to Richard Charles O'Neil (RAK, 2926). According to his estate papers, R.C. O'Neil was still in possession of the farm when he died on the 25th of August 1922 (MHG, 49639).

As will be discussed in more detail below, R.C. O'Niel was a very successful farmer and businessman and primarily responsible for the establishment of the town of Belfast.

3.2 KOPERMYN

The farm Kopermyn 435 JS (old number 260) was first inspected on the 16th of March 1868 by S.P. Botha. On the 30th of December 1869 it was transferred to its first owner, Johannes Stephanus Lombaard. On the same day it was transferred from J.S. Lombaard to Wessel Germishuis Hartogh. On the 18th of December 1890 the farm was transferred from W.G. Hartogh to Willem Andries Stephanus Gouws who remained in possession of it for 13 years. On the 20th of May 1903 it was transferred from Gouws to Thomas Major Cullinan. On the 10th of June 1904 the farm was transferred from Cullinan to Philippus Rudolf Schoeman.

The last two owners of the farm requires further discussion. Thomas Major Cullinan (11 February 1862 – 23 August 1936) was the owner of such famous companies as the *Premier Mine* and *Conrand* (*Consolidated Rand Brick, Pottery and Lime Company)*. The town of Cullinan east of Pretoria was named after him, as was the 3,106 metric carat diamond that was found at his mine on the 26th of January 1905.

Philippus Rudolf Schoeman (c. 1847 – 26 November 1919) acquired a portion of the farm Olifantsfontein (south of Pretoria) from his father-in-law on the 19th of March 1894. It is known that during the 1890s a section of the portion owned by P.R. Schoeman in close proximity to Olifantsfontein Station was leased to the *Holmes Lime Works Company*. The company also held an option to purchase a further 1,900 hectares of land surrounding their quarry. This lease and land was acquired for the price of £25,000 by the *Consolidated Rand Brick, Pottery and Lime Company* when it took control of the *Holmes Lime Works Company* in 1902 (Helme, 1974). Interestingly, the managing director and co-owner of *Conrand*, Thomas Major Cullinan, personally loaned the company £20,000 of his own money to acquire this land (Helme, 1974). It is possible that the transfer of the farm from Cullinan to Schoeman may have formed part of the payment of £20,000.

According to a website profiling the genealogy of the Strydom family, Philippus Rudolf Schoeman was buried on the farm Kopermyn (http://incolor.inebraska.com/strydom/geslagsregisters/strydom/336_e17.htm)

Figure 3 Sir Thomas Major Cullinan. He was the owner of famous companies such the *Premier Diamond Mine* and the *Consolidated Rand Brick, Pottery and Lime Company* (Helme, 1974:146) and was a highly successful and very well known industrialist, farmer and politician. Between 1903 and 1904 he owned the farm Kopermyn.

3.3 BOSMANSSPRUIT

The farm Bosmansspruit 459 JS (old number 259) was first inspected on the 17th of March 1868 by S.P. Botha. On the 30th of December 1869 it was transferred to its first owner, Jacob Stephanus Bosman.

No further information with regards to the farm ownership history of Bosmansspruit could be located in the National Archives.

3.4 TWEEFONTEIN

The farm Tweefontein 458 JS (old number 207) was first inspected on the 24th of January 1868 by S.P. Botha. On the 16th of July 1869 it was transferred to its first owner, Johannes Jacobus Pienaar.

No further information with regards to the farm ownership history of Tweefontein could be located in the National Archives.

4. ASPECTS ABOUT THE FARM MOOIFONTEIN

4.1 Mooifontein and Richard Charles O'Neil

Richard Charles O'Neil became the owner of the farm Mooifontein on the 23rd of July 1891. He remained in possession of the farm for the next three decades until his death on the 25th of August 1922.

Richard Charles O'Neil was born in Smithfield (in present day Free State Province) on the 23rd of August 1850. He was the second child of John James and Magdalena Catharina O'Neil. Although exact details are absent, it would appear that after leaving the Free State the family resided for a number of years in the vicinity of Majuba Hill in present day Kwazulu-Natal. In fact, the O'Neil family (John James O'Neil, his father and brothers) owned at least two farms in this area, namely Belfast and Mount Prospect. Incidentally, it was on the farm Mount Prospect that the farmhouse of John James O'Neil's younger brother (also named Richard Charles O'Neil) was located. This farmhouse became the infamous setting of the peace negotiations following the defeat of the British forces by the Boers at the Battle of Amajuba (26 February 1881) and is still known today as 'O'Neil's Cottage'.

In 1871 John James O'Neil decided to take his family out of Natal and travel further north into wilder more unexplored regions of Southern Africa. Richard Charles O'Neil was a young man of 22 at the time, and accompanied his parents and siblings as they moved away from the areas surrounding Majuba Hill in present day Kwazulu-Natal to eventually settle in present-day Mpumalanga in 1874. John James O' Neil established himself on the farm Klipfontein (exact position unknown, though it seems likely to be one of the two farms of this name directly south of Middelburg). Although he died on his farm in 1880, his children remained in the area and started acquiring their own farms. Richard Charles O'Neil was a good example of this. Between 1880 and his death in 1922 he accumulated large tracts of farm land and hundreds of stands in the towns of Belfast and Lydenburg. Ironically, it appears as if his first and last farm acquisitions were his most fruitful (O'Neil, n.d.) (Van der Merwe, 1952).

In 1883 O'Neill acquired his first farm, namely Tweefontein. During the mid to late 1880s the numbers of farmers in the area began to increase and the need for a town was felt. During 1889 the community asked Richard Charles O'Neil to request the government of the *Zuid-Afrikaansche Republiek* to establish a new town on his farm. When asked what the name of the new town should be, Richard Charles O'Neil proposed the name 'Belfast' in honour of his grandfather (also Richard Charles O'Neil) who was born in Belfast, Northern Ireland.

According to Van der Merwe (1952) three main reasons can be given why it was decided that the farm Tweefontein would be best suited for a new town. These are:

- On the 16th of December 1886 a monument was officially opened on the farm to commemorate the Battle of Blood River. The monument soon became the place where local farmers could gather during special events or festivals.
- A strong need was felt for the establishment of a church roughly in the middle between the towns of Middelburg and Lydenburg. The farm Tweefontein fitted into this requirement.
- The discovery of coal and subsequent establishment of a number of coal mines all around the farm Tweefontein meant that a town on this farm would be centrally located within this wider mining area.

The first survey work for the town was undertaken in 1889 by Peter Macdonald, and on the 30th of July 1890 the town was officially proclaimed by President Paul Kruger. Of the original 888 surveyed stands, 575 were given to R.C. O'Neil as the owner of the farm (Van der Merwe, 1952).

Although the town took a number of years to develop, it seems that the acquisition of so many stands by O'Neil must have brought financial benefit. This can be seen in the fact that during 1890 he acquired two farms, namely Rietvalley and a certain portion called 'Annie's Reward' of the farm Tweefontein. The last mentioned Tweefontein farm is not the one on which the town of Belfast was proclaimed. Instead, it is the farm of which a portion falls within the present study area.

In 1891 O'Neill acquired the farm Mooifontein as well as the northern half of the farm Grootlaagte. Two years later in 1893 he also acquired the remaining extent of the farm Kafferskraal.

After the opening of the railway line between Pretoria and Delagoa Bay in 1894 (and the resulting upsurge in Belfast business) Richard O'Neil sold a shop he had opened in town in 1891 to a person by the name of Thomas (O'Neil, n.d.) (Van der Mewe, 1952).

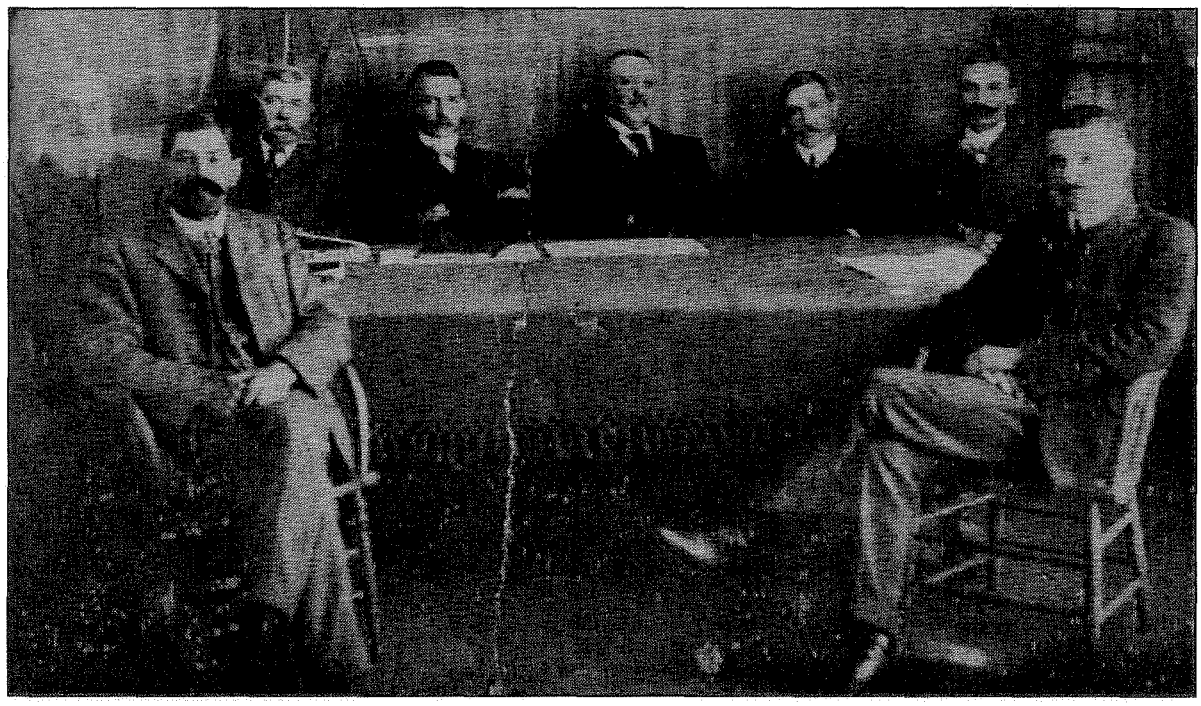
In 1897 O'Neil acquired the farm Paardeplaats and a year later the farm Zwartkoppies. After the South African War (1899-1902) coal mining was established on Zwartkoppies. It can be expected that this resulted in at least some measure of financial benefit to O'Neil. The year 1898 saw Richard Charles O'Neil also building three houses on two of his stands in the town of Belfast.

The expansion of O'Neil's businesses during the 1890s can be seen when one studies his compensation claim for losses sustained during the South African War (1899-1902). In this document he indicates that he owned nine buildings in Belfast. These include dwellings and shops that were rented to tenants as well as a hotel, a gentlemen's club and a bank (CJC, 393, 44).

In the period after the South African War (1899-1902) O'Neil remained involved in the management of Belfast. During this time he was chairman of the Belfast Town Council for four years.

In 1910 Richard Charles O'Neil became the first resident of the Belfast District to own a motor vehicle. He named his vehicle 'Alldays and Onions'.

O'Neil passed away on the 25th of August 1922 in his house in Belfast. He was 72 years old.



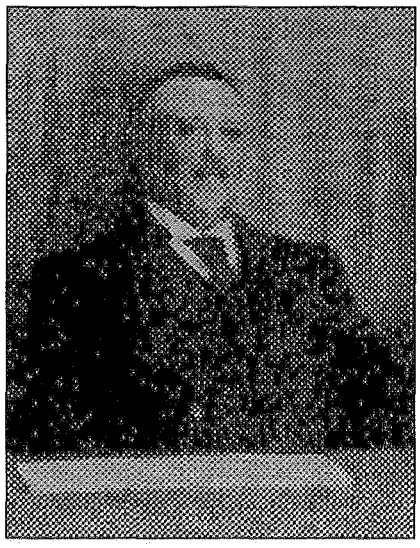


Figure 4 The only photograph of Richard Charles O'Neil (23 August 1850 – 25 August 1922) which could be located. This image was taken in 1911 and shows the Belfast Town Council. R.C. O'Neil (image enlarged on the left) is the fifth person from the left.

4.2 Mooifontein and Pixley ka Isaka Seme

Information was located in the National Archives which indicated that a black person by the name of Job Ngema rented the farm Mooifontein from Richard Charles O'Neil for a year (Jus, 221, 3/1206/15). This lease agreement was signed on the 12th of April 1913 and stated that Ngema was to lease the farm from September 1913 to September 1914. In terms of the lease agreement Ngema also had the option to buy the farm from O'Neil if he chose to do so.

On the 29th of October 1915 an application was lodged with the Governor-General of the Union of South Africa by the well known Pretoria law firm Rooth & Wessels *to obtain permission (in terms of Section 1 of the Natives Land Act) for Mooifontein to be bought be one P.K. Seme. After the application was refused the applicants responded by stating that Ngema had passed his right to buy the farm (as per the lease agreement with O'Neil) on to P.K. Seme. In response to this the Secretary for Justice J. de Villiers Roos compiled a legal opinion on the case and indicated that Ngema could not exercise the right of buying the farm as per his lease agreement if his lease period had already ended. According to the agreement the lease ended on the 21st of September 1914. Another legal opinion was drafted by the Registrar of Deeds Johannes Smuts. In this document a detailed overview of the case was given. Amongst other things this document indicated that Ngema had purchased the farm on the 20th of December 1913 for a sum of £20,079. Interestingly, this amount is considerably more than the £7,112 the farm was valued at after O'Neil's death in 1922. Smuts concluded that for the farm to be registered in the deeds office in the name of Ngema or Seme, approval would first be required from the Governor-General. As it is known that R.C. O'Neil was still in possession of Mooifontein when he died in August 1922, it can be assumed that such an approval was never given by the Governor-General.*

On face value the matter above appears to be just one of many cases in which attempts by black people to own land was curtailed as a result of discriminatory policies and legislation at the time. However, the case has much more significance in that the individual referred to in the document as P.K. Seme can be none other than Pixley ka Isaka Seme (1 October 1881 – June 1951), well known lawyer and politician who was a driving force behind the establishment of the South African Native National Congress and later the African National Congress.

After completing a Bachelors of Arts degree at Columbia University (April 1906) followed by a Bachelor of Civil Law at Jesus College, Oxford University (June 1909) Pixley ka Isaka Seme returned to South Africa where he had been born in 1881. Although he started practicing law, he soon became involved in politics. Due largely to his ideas and inspiration a meeting of black leaders and personalities from all over South Africa took place in Bloemfontein on the 8th of January 1912. At the meeting the South African Native National Congress (SANNC) was established. Seme's influence at the meeting can be seen in the fact that he gave the keynote address and was also elected Treasurer-General. Incidentally, the South African Native National Congress changed its name to the African National Congress in 1923. In 1930 Pixley ka Isaka Seme was elected president of the African National Congress, a position he held until 1937 when he was replaced as leader by Z.R. Mahabane. Pixley ka Isaka Seme died in June 1951 (www,anc.org.za).

Figure 5 Pixley ka Isaka Seme (Reader's Digest, 1994:288)

Of more relevance for the present study is the work Pixley Seme did to protect and promote black owned farmland. In 1912 he was the driving force behind the establishment of the *Native Farmer's Association of Africa Limited* and also became the organisation's chairman. The main purpose of the organisation was to assist black communities in acquiring farms. Although various attempts were made to acquire properties, only three farms were eventually bought namely Driefontein, Daggakraal and Driepan in the Wakkerstroom District of the then Eastern Transvaal (www.anc.org.za) (Delius & Hay, 2009).

It is evident that the attempt by Seme to buy Mooifontein from 1913 onward must have formed part of his activities as Chairman of the *Native Farmer's Association of Africa Limited.*

4.3 The Mooifontein farmstead

As can be seen from the relevant section of the Belfast, Machadodorp and Dullstroom Sheet dated to February 1902 (see Figure 1) no farmstead existed on the farm Mooifontein at the time. The fact that no farmhouse existed on the farm during the South African War (1899-1902) is supported by another archival document as well. This evidence comes from the compensation claim for wartime losses submitted after the war by the then owner of the farm Mooifontein, Richard Charles O' Neill (CJC, 393, 44). In his claim it is evident that he owned five farms at the time, namely Rietvlei (directly west of the town of Belfast), Grootlaagte (directly east of the study area), Elandsfontein (directly north of the study area), Kafferskraal (position uncertain) and Mooifontein. With the exception of Mooifontein, houses on all these farms were destroyed or damaged during the war. Although it would have been possible for a house to be located on the farm Mooifontein which had not be demolished or damaged during the war, this appears to be highly unlikely if one considers the fact that houses were destroyed on two neighbouring farms owned by O'Neil. It is also known that the farmhouse owned by Jozua Francois van Eeden on the neighbouring farm Bosmansspruit was also destroyed during the war (CJC, 938, 384).

Further circumstantial evidence in providing an age for the farmstead was found in a document of the *Transvaal and Agricultural Bank* dated the 10th of December 1909 (MHG, 49639). In the document a loan of £2,500 was approved for Richard Charles O'Neil. As security for this loan, O'Neil offered the northern half of his farm Grootlaagte as well as the entire farm Mooifontein. Apart from these two farms offered as security, Richard O'Neil at the time owned a number of other farms as well, including Rietvlei,

Elandsfontein and Kafferskraal. It is doubtful that he would have offered the farm Mooifontein as security if a farmhouse has recently been built on the property. With this in mind it seems likely that the Mooifontein farmstead did not exist in 1909.
Although no direct evidence for it exists, it seems very likely that the farmstead was constructed while Richard Charles O'Neil was still alive. Circumstantial evidence for this can be found in the fact that after the death of O'Neil the executors took from 1922 until 1927/1928 to settle his estate. During this time portions of the farm Mooifontein was rented to various different people including S.A. Venter, J.G. Breytenbach, D.J. de Waal, M. Steyn, A.J. van den Heever, C. van den Heever, J.H. Breytenbach, C.L. Breytenbach, F.P. Rousseau, S. Potgieter, W.C. Bouwer, D.C. van Eeden, I.M. Diamond, C. van Rooyen, J.A. Coetzee, C.L. Coetzee, B. Coetzee, Bedford, Pelser and Van Heerden. Although numbers of people were therefore using the farm at the time, it can be assumed that while the estate was in the process of being settled no new farm buildings would have been constructed.

Based on the available information it seems highly likely that the Mooifontein farmstead was built between 1909 and 1922 and as a result while the farm was still owned by Richard Charles O' Neil. It is doubtful whether O'Neil would have constructed the farmstead for his own use as he was still actively involved with the Belfast Town Council and various business interests in the Belfast area. It is known that before the South African War (1899-1902) O'Neil's residence was "*...a very fine house...built of dressed stone...*" which comprised 12 rooms with an iron roof located on the farm Rietvalley. Although this house was destroyed during the war, O'Neil received an amount of £1,500 after the war as compensation to rebuild it. In his book *Adventures in Swaziland: the Story of a South African Boer* Owen Rowe O'Neil (1921) states that his father Richard Charles O'Neil rebuilt the house on Rietvalley after the war and also that the farm remained the residence of the family. At the same time Richard Charles O'Neil also had a house in Belfast, which incidentally was where he passed away in 1922 (MHG, 49639).

In summary, it seems likely that the farmhouse at Mooifontein was built either for a child of Richard Charles O'Neil or alternatively (and more likely) for one of the tenants who rented portions of the farm. Two persons who rented portions of the farm before 1922 were W.C. Bouwer and D.C. van Eeden (MHG, 49639).

5. ASPECTS ABOUT THE FARM BOSMANSSPRUIT

5.1 The Bosman family

As the name suggest, the farm Bosmansspruit has always been associated with the Bosman family. As mentioned before, the first owner of the farm was Jacob Stephanus Bosman, and the farm was transferred to him on the 30th of December 1869.

According to a Google Group on the Bosman family, Jacob Stephanus Bosman was born on the 17th of June 1818 at Vlaeberg near Stellenbosch. After his first wife died in 1851, Bosman married Johanna Philippina Magdalena Rossouw (born on 7 December 1830) on the 9th of November 1852.

Although he started his farming activities at Bossiesveld near Worcester, Bosman later moved to the Transvaal with his family and settled in the place that was to be proclaimed as the farm Bosmansspruit on the 17th of March 1868.

He died here on 10 February 1882 and his wife passed away on 12 November 1911. Both Jacob Stephanus Bosman and his wife were buried on the farm (http://groups.yahoo.com/group/bosmansa/message/353).

Although it is not presently known whether the Bosman family still resides on the farm, it is known that they owned and occupied sections of the farm at least into the early 20th century.

The graves of members of the Bosman family (including the patriarch Jacob Stephanus Bosman) can be seen in a cemetery on the farm Bosmansspruit.

5.2 The Van Eeden family

The Van Eeden family also has a strong association with the farm Bosmansspruit. Tangible evidence for this can be seen in three historic cemeteries located on the farm Bosmansspruit which contains the graves of members of the Van Eeden family.

Archival evidence for the association of the study area with this family also exists. The earliest archival evidence which could be found for a member of the Van Eeden family in

the study area is the compensation claim for losses suffered during the South African War (1899-1902) that was submitted by Josua Francois van Eeden of the farm Bosmansspruit. In these documents Van Eeden states that his house, storeroom, numerous pieces furniture, agricultural products as well as farm animals (including one pig, two horses and 30 sheep) were destroyed by a British force under the command of General W. Kitchener when they visited Bosmansspruit on the 14th of May 1901. Van Eeden described his dwelling as a rectangular building (12m x 5m) with walls built from stone and raw (unfired) bricks. The house comprised three rooms, four doors and three windows and had a pitched corrugated iron roof. The storeroom was described as a rectangular structure (5m x 4m) with brick walls and a thatch roof (CJC, 983, 384).

Death certificates housed at the National Archives in Pretoria were obtained for a few members of the Van Eeden family whose details could be read from the headstones on Bosmansspruit. These individuals are Jozua Francois van Eeden (June 1834 - 13 October 1929) (MHG, 71091), Jacob Frederik van Eeden (January 1863 – 30 April 1952) (MHG, 379/64) and Gert Cornelius van Eeden (1881 – 15 March 1935) (MHG, 88051). From the dates associated with these individuals it immediately becomes apparent that numerous generations of the family were buried on the farm. Of specific interest as well is the death certificate of Gert Cornelius van Eeden which states that he was born in Potchefstroom in 1881. This seems to indicate that the Van Eeden family at the time resided in the Potchefstroom district and that sometime before the start of the South African War in 1899 they moved to the Middelburg district.

Members of the Van Eeden family still reside on the farm to this day.

5.3 The Bosmansspruit school

A farm school was established on the farm Bosmansspruit during 1897 or 1898. The school came about because of the efforts of the farm owner Jacob Stephanus Bosman (the son of the Bosman patriarch discussed before) (OD, OR11490/97). In 1898 a teacher by the name of J.S. de Kock was appointed even though he had not written any Dutch exams before. De Kock felt that his ability to speak and write Dutch was sufficient to teach and also indicated that he was willing to attend extra classes (OD, OR8794/98). During 1899 De Kock started undertaking weekly visits to C.J. van Ryn, the teacher at Wonderfontein, from whom he received extra lessons (OD, OR10033/99). However, this arrangement stopped in August 1899 when Van Ryn was moved to another school (OD, OR14208/99). On the 2nd of September 1899 an attempt was made to appoint T. Vorkink

at the school, though this did not appear to have succeeded (OD, OR14547/99). During 1900 the name of a J. Servaas also appears with that of De Kock in terms of the staff at the school (OD, OR2372/00). The last record about the school dates to March 1900. This date is two months before the occupation of Pretoria by the British forces (OD, OR2382/00).

5.4 The railway line

According to Bergh (1999) the railway line that crosses over the south-eastern corner of the study area was constructed in the period 1960 to 1980.

6. THE SOUTH AFRICAN WAR (1899-1902) AND THE STUDY AREA

In the National Archives in Pretoria a reference was found to the grave of a H. van der Westhuizen that was exhumed from the farm Bosmansspruit and reburied at the Burgher Monument, Bergendal, Belfast. No other information about this grave could be located. However, as the presence of a burgher grave in some cases indicates that a skirmish or battle took place in the area, the Bloemfontein War Museum database was accessed. This database contains all the skirmishes and battles which took place during the war and is referenced according to farm and town names. No indication of a skirmish or battle on the farms included in the study area could be found.

As mentioned elsewhere, the compensation claims submitted by residents and owners of farms after the cessation of hostilities provide at leas some indication for the movement of troops and armies across the study area and direct surroundings during the war.

In the claim submitted by Richard Charles O'Neil it was indicated by Friedrich Jacobus van Eeden that on an unknown date he was with his commando on patrol when he saw British troops arriving on the farms Grootlaagte and Elandsfontein. Although he watched from some distance, he soon started seeing smoke rising from where the houses on the two farms were located. A couple of days later when the British column had left Van Eeden visited the two farmsteads and saw that they were both burnt down (CJC, 393, 44).

In another affidavit from the claim of Richard Charles O'Neil (CJC, 393, 44) a witness by the name of John Williams indicated that he was residing on the farm Elandsfontein when in July 1901 a column under the command of Major General J.P.D. French encamped

themselves on the farm Grootlaagte. During the week that the British troops stayed here the farmhouses on Grootlaagte and Elandsfontein were destroyed.

In the claim submitted by Jozua Francois van Eeden (CJC, 983, 384) he indicated that British troops visited Bosmansspruit on two occasions. He also states that a Boer commando passed by once. In August 1900 the farm was visited by Major General J.P.D. French's column and one buckwagon, a chain for harnessing oxen as well as a yoke were destroyed by the troops. The next visit took place on the 14th of May 1901 when troops under the command of General W. Kitchener destroyed the farmhouse and storeroom and took or destroyed numerous pieces of furniture and objects from the house. Examples of these include a clock, telescope, medicine chest and bath. A number of farm animals were also taken. The visit by the Boer commando took place in May 1902 and numerous bags of maize were taken.

7. CONCLUSION

The archival and historical desktop study has provided historical background on the project area and surroundings with which the heritage resources located in the field can be better understood, assessed and interpreted.

BIBLIOGRAPHY

National Archives Documents

CJC, 393, 44
CJC, 938, 384

Jus, 221, 3/1206/15

MHG, 379/64
MHG, 49639
MHG, 71091
MHG, 88051

RAK 2926

OD, OR11490/97
OD, OR8794/98
OD, OR10033/99
OD, OR14208/99
OD, OR14547/99
OD, OR2372/00
OD, OR2382/00

National Archives Maps

3/562

Published Sources

Bergh, J.S. (ed.). 1999: *Geskiedenis Atlas van Suid-Afrika: Die Vier Noordelike Provinsies*. J.L. van Schaik. Pretoria.

Delius, P. & M. Hay 2009: *Mpumalanga: An Illustrated History*. The Highveld Press, Johannesburg.

Helme, N. 1974: *Thomas Major Cullinan*. Johannesburg, McGraw-Hill Book Company.

O'Neil, O.R. 1921: *Adventures in Swaziland: the Story of a South African Boer.* Century Company, New York.

Van der Merwe, A.P. 1952: *'n Kort Geskiedenis van Belfast en Distrik.*

Unpublished Sources

O'Neil, M.P.Q. n.d. Unpublished, untitled document written by Morris Peter Quigley O' Neil on his recollections of the early history of the O'Neil family and the establishment of Belfast.

Internet

www.anc.org.za
(http://groups.yahoo.com/group/bosmansa/message/353).
(http://incolor.inebraska.com/strydom/ geslagsregisters/strydom/336_e17.htm)

ANNEXURE F:
Mining Plan