



## Archaeological Impact Assessment

**H  
E  
R  
I  
T  
A  
G  
E**

**U  
N  
I  
T**

Arnot Colliery Mine Project of Exxaro  
on Portions 4 and 5 of the farm  
Mooifontein 448 JS and Portions 3  
and 4 of the farm Tweefontein 458  
JS , District Middelburg,  
Mpumalanga

Version 1.0

19 February 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:** Digby Wells & Associates (Pty) Ltd

**CONTACT PERSON:** Ms. Marike Fourie, Tel: (011) 789 9495, Fax: (011) 504 1440,  
Fax to email: 086 502 1588, email: marike@digbywells.co.za

**SIGNATURE:** \_\_\_\_\_

**LEADING CONSULTANT:** Professional Grave Solutions - Heritage Unit

**CONTACT PERSON:** Wouter Fourie

**SIGNATURE:** \_\_\_\_\_

**Copyright**

Copyright in all documents, drawings and records whether manually or electronically produced, which form part of the submission and any subsequent report or project document shall vest in PGS. None of the documents, drawings or records may be used or applied in any manner, nor may they be reproduced or transmitted in any form or by any means whatsoever for or to any other person, without the prior written consent of PGS.

The Client, on acceptance of any submission by PGS and on condition that the Client pays to Professional Grave Solutions (Pty) Ltd the full price for the work as agreed, shall be entitled to use for its own benefit and for the specified project only:

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

## **EXECUTIVE SUMMARY**

Professional Grave Solutions - Heritage Unit was appointed by Digby Wells & Associates to undertake a Phase 1 Archaeological Impact Assessment that forms part of the Environmental Management Programme Upgrade for the Arnot Colliery of Exxaro on Portions 4 and 5 of the farm Mooifontein 448 JS and Portions 3 and 4 of the farm Tweefontein 458 JS , District Middelburg, Mpumalanga.

During the survey seven cemeteries were identified. A grave relocation process is currently conducted on one of the cemeteries. This process is still in the social consultation phase.

During the survey 11 sites of varying heritage significance were identified. Of the 11 sites seven are cemeteries of which one is directly impacted on. A further two cemeteries may be impacted on due to their proximity to the mining areas.

A further one site of high heritage significance was identified outside the mining area that could be impacted on by blasting activities. Due to proposed concerns regarding the cumulative impacts of blasting activities in the area, this letter has been included in the AIA to be considered in the EIA/EMP for the proposed project. Although this heritage structure is not included in the projects area and will not be directly affected by mining activities, it has been documented in the regional proximity of the project area and must be monitored as part of the EIA/EMP.

**The Cass family homestead** - The Homestead is situated on Portion 2 of the farm Mooifontein. The homestead and outbuildings date 1900 to 1930. The overall condition of the site is very well preserved and is still utilised as residence and farm buildings. The Provincial Heritage Resources Agency (PHRA) has provided the Cass family with a letter stating the importance of the farmstead. (Refer to **Annexure B**)

### ***Heritage Site within the mining area***

#### ***2529DC-PGS001***

Is as homestead currently occupied.

*Mitigation:* During negotiations for the relocation of the homestead, it will be necessary to ascertain the possibility of childburial around the homestead.

In the event that it is discovered that there were child burials a grave relocation process must be initiated to handle the relocation of such remains in a dignified and legal manner with the consent of the family involved.

**2529DD-PGS001, PGS 005 and PGS009**

Is the remains of previous homesteads. All three show the foundations of previous houses and has in all cases been cleared of rubble. Some outbuildings and kraals are evident.

*Mitigation:* No further action required.

**2529DD-PGS002**

The site is a cemetery consisting of 11 graves, of which 7 are aligned east-west and 4 aligned north-south.

*Mitigation:* It is recommended that the site be fenced to protect against any inadvertent damage during mining.

**2529DD-PGS003**

The site consists of a homestead with associated outbuildings. The current family, the Mokoenas, is in the process of being relocated to a new area as negotiated with the mining company.

During discussion with the family it was also ascertained that no child burials occur in or around the houses.

Some 50 metres to the east of the farmstead an associated cemetery consisting of three graves have been identified during the homestead relocation process. The graves are those belonging to Elias Sibanyone and Husie Nhlapo.

Negotiations on the relocation of the graves are currently on the way and the process is being conducted to comply with all legal requirements.

*Mitigation:* The grave relocation process is to be concluded to conform to all legal requirements.

**2529DD-PGS004**

The site consists of three graves with headstones. The one headstone reads Andries Mothswene – 1945.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.

**2529DD-PGS006**

The site consists of approximately 6 graves. Vegetation density made the counting of the graves difficult. On headstone indicates the surname Shabambo.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.

**2529DD-PGS007**

The site consists of three sandstone graves. The headstones are weathered and only the surname Nuwenhuizen and the dates Born 1879 and died 1924 are legible.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.

**2529DD-PGS008**

The site of this cemetery was indicated by the local farmer Mr Theo Kleynhans. He could not confirm the amount of graves in the cemetery and vegetation cover made the counting of graves impossible.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.

**2529DD-PGS010**

Consist of a cemetery with an unknown amount of graves. Due to access problems the site could not be visited. Mr Theo Kleynhans, the farmer on the property indicated the presence of a cemetery in the area of the coordinates.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.

In the event that any of the cemeteries identified in the mining area are to be impacted directly by mining a grave relocation process should be initiated.

***The grave relocation process,*** must contain the following:

- 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.

***General***

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

**CONTENTS**

1. INTRODUCTION.....	9
2. APPROACH AND METHODOLOGY.....	9
2.1. PROJECT DESCRIPTION .....	9
2.2 PHYSICAL SURVEYING.....	11
3. LEGISLATIVE REQUIREMENTS AND TERMINOLOGY .....	11
3.1 Legislation.....	11
3.2 Abbreviations and Terminology .....	12
4. ASSESSMENT CRITERIA.....	13
4.1 IMPACT .....	14
4.1.1 Nature and existing mitigation .....	14
4.2 EVALUATION.....	14
4.2.1 Site Significance.....	14
4.2.2 Impact Rating .....	15
5. BACKGROUND OF AREA .....	17
5.1 ARCHAEOLOGICAL BACKGROUND .....	17
5.2 HISTORICAL BACKGROUND .....	17
6. SITES OF SIGNIFICANCE.....	17
6.1 2529DC-PGS001 .....	18
6.2 2529DD-PGS001 .....	19
6.3 2529DD-PGS002 .....	21
6.4 2529DD-PGS003 .....	23
6.5 2529DD-PGS004 .....	25
6.6 2529DC-PGS005 .....	27
6.7 2529DD-PGS006 .....	28
6.8 2529DD-PGS007 .....	30
6.9 2529DD-PGS008 .....	31
6.10 2529DD-PGS009 .....	33
6.11 2529DD-PGS010 .....	34
7. ASSUMPTIONS AND LIMITATIONS .....	35
8. LEGAL AND POLICY REQUIREMENTS .....	36
8.1 General principles.....	36
8.1 Graves and cemeteries .....	37
9. ASSESSMENT AND RECOMMENDATIONS .....	38
10. LIST OF PREPARES .....	41
11. REFERENCES .....	41

**ANNEXURE**

Annexure A – Study area and heritage sites

Annexure B – PHRA Letter to Mrs Cass

**Figures**

<i>Figure 1 – Locality Map</i> .....	10
<i>Figure 2 - Photo of cemetery</i> .....	18
<i>Figure 3 – Area of farmstead and kraal in background</i> .....	20
<i>Figure 4 – Water reservoir and dams on site</i> .....	20
<i>Figure 5 - Photo of cemetery</i> .....	22
<i>Figure 6 - Photo of homestead</i> .....	24
<i>Figure 7 - Photo of cemetery</i> .....	24
<i>Figure 8 - Photo of cemetery</i> .....	26
<i>Figure 9 - Photo of site</i> .....	28
<i>Figure 10 - Photo of cemetery</i> .....	29
<i>Figure 11 - Photo of cemetery</i> .....	31
<i>Figure 12 - Photo of cemetery</i> .....	32
<i>Figure 13 - Photo of stone kraal</i> .....	34



## **1. INTRODUCTION**

Professional Grave Solutions - Heritage Unit was appointed by Digby Wells & Associates to undertake a Phase 1 Archaeological Impact Assessment that forms part of the Environmental Management Programme Upgrade for the Arnot Colliery of Exxaro on Portions 4 and 5 of the farm Mooifontein 448 JS and Portions 3 and 4 of the farm Tweefontein 458 JS, District Middelburg, 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.

During the survey seven cemeteries were identified. A grave relocation process is currently conducted on one cemetery. This process is still in the social consultation phase.

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

## **2. APPROACH AND METHODOLOGY**

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

### **2.1. PROJECT DESCRIPTION**

Arnot Colliery is an existing Open Pit coal mine situated on Portions 4 and 5 of the farm Mooifontein 448 JS and Portions 3 and 4 of the farm Tweefontein 458 JS, situated in the Middelburg Magisterial/Administrative District. Digby Wells and Associates (DWA) have

been appointed to update the existing EMP, which will incorporate structures previously excluded from the EMP.



Figure 1 – Locality Map

## **2.2 PHYSICAL SURVEYING**

The project area comprises of approximately 400 ha. Due to the nature of cultural remains, the majority that occur below surface, a physical walk through of the study area was conducted. A controlled-exclusive surface survey was conducted over a period of one day, by means of vehicle and extensive surveys on foot by PGS.

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

## **3. LEGISLATIVE REQUIREMENTS AND TERMINOLOGY**

### **3.1 Legislation**

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

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

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

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

- iv. Development Facilitation Act (DFA) Act 67 of 1995
  - a. The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31.

### **3.2 Abbreviations and Terminology**

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

EIA: Early Iron Age

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: Paleontological Society of South Africa

ROD: Record of Decision

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;  
any change to the natural or existing condition or topography of land;
- v. any removal or destruction of trees, or removal of vegetation or topsoil

### ***Heritage resources***

This means any place or object of cultural significance

## **4. ASSESSMENT CRITERIA**

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

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

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

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

- A - No further action necessary;
- B - Mapping of the site and controlled sampling required;
- C - Preserve site, or extensive data collection and mapping of the site; and
- D - Preserve site

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

#### **4.1 IMPACT**

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

##### **4.1.1 Nature and existing mitigation**

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

#### **4.2 EVALUATION**

##### **4.2.1 Site Significance**

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

<b>FIELD RATING</b>	<b>GRADE</b>	<b>SIGNIFICANCE</b>	<b>RECOMMENDED MITIGATION</b>
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	-	Medium	Recording before destruction

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

#### 4.2.2 Impact Rating

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

**Table 1: Probability**

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

**Table 2: Extent**

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

**Table 3: Duration**

Category	Rating	Description
Very short-term	1	Less than 1 year

Short-term	2	1 to 4 years
Medium-term	3	5 to 10 years
Long-term	4	11 to 15 years
Very long-term	5	Greater than 15 years
Permanent	6	Permanent

**Table 4: Intensity**

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

**Table 5: Significance Rating**

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



## **5. BACKGROUND OF AREA**

### **5.1 ARCHAEOLOGICAL BACKGROUND**

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

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

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

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

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the Pre-Historic and Historic periods. Similar to the Stone Age it 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.

## **6. SITES OF SIGNIFICANCE**

The study area is located on topographical sheet 2529DC and DD.

The proposed site consisted of wetland, grassland and maize fields.

**6.1 2529DC-PGS001**

<b>Description of Site:</b>	
<b>Site Number</b>	2529DC-PGS001
<b>Map reference</b>	<b>Topo-sheet number</b> <b>Number of Map in report</b>
	<b>2529DC</b> <b>Annexure A</b>
<b>GPS coordinates:</b> <i>Indicate Model and datum - WGS 84</i>	X      Y
Garmin 60Csx, WGS 84	S25.86412      E29.74959
<b>Site Data</b>	<b>Description</b>
<b>Type of site</b> (e.g. open scatter; shell midden, /shelter);	The site is situated on Portion 4 of the farm Mooifontein. The site is a current homestead that consists of a single homestead that comprises of numerous attached single rooms opening onto a communal veranda.  During the visit none of the of the Tombeni family were at home.
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	50x50m
<b>Photographs and diagrams</b> (Figure numbers)	 <p style="text-align: center;"><i>Figure 2 - Photo of cemetery</i></p>

<b>Statement of Significance</b> (Heritage Value)	The site is of low heritage significance.				
<b>Field Rating</b> (Recommended grading or field significance) of the site:	Generally protected (GP.A)				
<b>Impact Evaluation</b> of development on site	Impact on site is seen as possibly high negative. Current mining plans indicate mining activity to impact on this homestead by 2013.				
<b>Recommendations</b> including:	<p>During negotiations for the relocation of the homestead, it will be necessary to ascertain the possibility of child burial around the homestead.</p> <p>In the event that it is discovered that there where child burials a grave relocation process must be initiated to handle the relocation of such remains in a dignified and legal manner with the consent of the family involved.</p>				
<b>Summary</b>					
<b>Significance Rating of impact</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
14	GP.A	3	1	6	4

## 6.2 2529DD-PGS001


<b>Description of Site:</b>		
<b>Site Number</b>	2529DD-PGS001	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> Indicate Model and datum - WGS 84	X	Y
Garmin 60Csx, WGS 84	S25.86639	E29.75548
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site consists of a stone build kraal with water reservoir and cement farm dam. The foundations of a farm house were also present in the vicinity.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	

<p><b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);</p>	<p>100x100m</p>
<p><b>Photographs and diagrams</b> (Figure numbers)</p>	<div data-bbox="564 488 1390 1104"> </div> <p data-bbox="571 1144 1302 1178"><i>Figure 3 – Area of farmstead and kraal in background</i></p> <div data-bbox="571 1216 1385 1821"> </div> <p data-bbox="668 1854 1241 1888"><i>Figure 4 – Water reservoir and dams on site</i></p>
<p><b>Statement of Significance</b> (Heritage Value)</p>	<p>The site is of low significance.</p>

<b>Field Rating</b> (Recommended grading or field significance) of the site:	Generally protected (GP.A)				
<b>Impact Evaluation</b> of development on site	Impact on site is seen as possibly low negative as the mining plan indicates no mining to take place in this area.				
<b>Recommendations</b> including:	No further action required.				
<b>Summary</b>					
<b>Significance Rating of impact</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
12	GP.A	1	1	6	4

### 6.3 2529DD-PGS002

<b>Description of Site:</b>		
<b>Site Number</b>	2529DD-PGS002	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> Indicate Model and datum - WGS 84	X	Y
Garmin 60Csx, WGS 84	S25.86115	E29.75461
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site is a cemetery consisting of 11 graves, of which 7 are aligned east-west and 4 aligned north-south. The headstone inscriptions on two of the graves indicate the family to be the Tombeni family. Wynand Mokoena (Resident at 2529DD-PGS003) indicated that the inhabitants of site 2529DC-PGS001 are the relatives for these graves.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	20x20m	

<p><b>Photographs and diagrams</b> (Figure numbers)</p>	 <p style="text-align: center;"><i>Figure 5 - Photo of cemetery</i></p>				
<p><b>Statement of Significance</b> (Heritage Value)</p>	<p>The site is of high heritage significance.</p>				
<p><b>Field Rating</b> (Recommended grading or field significance) of the site:</p>	<p>Generally protected (GP.B)</p>				
<p><b>Impact Evaluation</b> of development on site</p>	<p>Impact on site is seen as possibly medium negative. As the current mining plan does not indicate mining around the position of the cemetery.</p>				
<p><b>Recommendations</b> including:</p>	<p>It is recommended that the site be fenced to protect against any inadvertent damage during mining.</p>				
<p><b>Summary</b></p>					
<p><b>Significance Rating</b></p>	<p><b>Field Rating</b></p>	<p><b>Probability</b></p>	<p><b>Extent</b></p>	<p><b>Duration</b></p>	<p><b>Intensity</b></p>
<p>12</p>	<p>GP.B</p>	<p>1</p>	<p>1</p>	<p>6</p>	<p>4</p>

**6.4 2529DD-PGS003**

<b>Description of Site:</b>		
<b>Site Number</b>	2529DD-PGS003	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> <i>Indicate Model and datum - WGS 84</i>	X	Y
Garmin 60Csx, WGS 84	S25.87168	E29.76064
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	<p>The site is situated on Portion 5 of the farm Mooifontein. The site consists of a homestead with associated outbuildings. The current family, the Mokoenas, is in the process of being relocated to a new area as negotiated with the mining company. During discussion with the family it was also ascertained that no child burials occur in or around the houses.</p> <p>Some 50 metres to the east of the farmstead an associated cemetery consisting of three graves have been identified during the homestead relocation process. The graves are those belonging to Elias Sibanyone and Husie Nhlapo.</p> <p>Negotiations on the relocation of the graves are currently on the way and the process is being conducted to comply with all legal requirements.</p>	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	20x20m	

**Photographs and diagrams** (Figure numbers)



*Figure 6 - Photo of homestead*




*Figure 7 - Photo of cemetery*



<b>Statement of Significance</b> (Heritage Value)	The cemetery site is of high significance.				
<b>Field Rating</b> (Recommended grading or field significance) of the site:	The cemetery is Generally protected (GP.B)				
<b>Impact Evaluation</b> of development on site	Impact on site is seen as high negative as mining is to impact directly on the site.				
<b>Recommendations</b> including:	The grave relocation process is to be concluded to conform to all legal requirements.				
<b>Summary</b>					
<b>Significance Rating</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
14	GP.B	3	1	6	4

#### 6.5 2529DD-PGS004


<b>Description of Site:</b>		
<b>Site Number</b>	2529DD-PGS004	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> Indicate Model and datum - WGS 84	X	Y
Garmin 60Csx, WGS 84	S25.88423	E29.76413
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site is situated on Portion 5 of the farm Mooifontein. The site was shown to the field archaeologist by Mr Wynand Mokoena. The site consists of three graves with headstones. The one headstone reads Andries Mothswene – 1945.  The site is situated in an old maize field that is heavily over grown with weeds.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the	10x10m	

<p>site(s);</p>					
<p><b>Photographs and diagrams</b> (Figure numbers)</p>	 <p style="text-align: center;"><i>Figure 8 - Photo of cemetery</i></p>				
<p><b>Statement of Significance</b> (Heritage Value)</p>	<p>The site is of high significance.</p>				
<p><b>Field Rating</b> (Recommended grading or field significance) of the site:</p>	<p>Generally protected (GP.B)</p>				
<p><b>Impact Evaluation</b> of development on site</p>	<p>Impact on site is seen as possibly high negative as the mining activities will be active close to the cemetery.</p>				
<p><b>Recommendations</b> including:</p>	<p>It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.</p>				
<p><b>Summary</b></p>					

<b>Significance Rating of Impact</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
13	GP.B	2	1	6	4


### 6.6 2529DC-PGS005

<b>Description of Site:</b>		
<b>Site Number</b>	2529DC-PGS005	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> <i>Indicate Model and datum - WGS 84</i>	X	Y
Garmin 60Csx, WGS 84	S25.89786	E29.77167
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site consists of the remains of an old farmstead. Only the water reservoir and a single outbuilding are present.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	100x100m	

<p><b>Photographs and diagrams</b> (Figure numbers)</p>	 <p style="text-align: center;">Figure 9 - Photo of site</p>					
<p><b>Statement of Significance</b> (Heritage Value)</p>	<p>The site is of low significance.</p>					
<p><b>Field Rating</b> (Recommended grading or field significance) of the site:</p>	<p>Generally protected (GP.A)</p>					
<p><b>Impact Evaluation</b> of development on site</p>	<p>Impact on site is seen as low negative.</p>					
<p><b>Recommendations</b> including:</p>	<p>No further action required.</p>					
<p><b>Summary</b></p>						
<p><b>Significance Rating of Impact</b></p>	<p><b>Field Rating</b></p>	<p><b>Probability</b></p>	<p><b>Extent</b></p>	<p><b>Duration</b></p>	<p><b>Intensity</b></p>	
<p>14</p>	<p>GP.A</p>	<p>3</p>	<p>1</p>	<p>6</p>	<p>4</p>	

**6.7 2529DD-PGS006**


<p><b>Description of Site:</b> <b>Site Number</b></p>	<p>2529DD-PGS006</p>	
<p><b>Map reference</b></p>	<p><b>Topo-sheet number</b></p>	<p><b>Number of Map in report</b></p>
	<p><b>2529DD</b></p>	<p><b>Annexure A</b></p>
<p><b>GPS coordinates:</b> Indicate Model and datum - WGS 84</p>	<p>X</p>	<p>Y</p>

Garmin 60Csx, WGS 84	S25.88791	E29.76916
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site is situated on Portion 3 of the farm Tweefontein. The site consists of approximately 6 graves. Vegetation density made the counting of the graves difficult. On headstone indicates the surname Shabambo.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	20x20m	
<b>Photographs and diagrams</b> (Figure numbers)	 <p data-bbox="815 1541 1225 1576">Figure 10 - Photo of cemetery</p>	
<b>Statement of Significance</b> (Heritage Value)	The site is of high significance.	
<b>Field Rating</b> (Recommended grading or field significance) of the site:	Generally protected (GP.B)	
<b>Impact Evaluation</b> of development on site	Impact on site is seen as high negative as the alignment of the haul road would come within 80 metres of the site	

<b>Recommendations including:</b>	It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.				
<b>Summary</b>					
<b>Significance Rating of Impact</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
13	GP.B	2	1	6	4


### 6.8 2529DD-PGS007

<b>Description of Site:</b>		
<b>Site Number</b>	2529DD-PGS007	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> Indicate Model and datum - WGS 84	X	Y
Garmin 60Csx, WGS 84	S25.89949	E29.77780
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site is situated on Portion 3 of the farm Tweefontein. The site consists of three sandstone graves. The headstones are weathered and only the surname Nuwenhuizen and the dates Born 1879 and died 1924 are legible.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	10x10m	

<p><b>Photographs and diagrams</b> (Figure numbers)</p>	 <p style="text-align: center;"><i>Figure 11 - Photo of cemetery</i></p>				
<p><b>Statement of Significance</b> (Heritage Value)</p>	<p>The site is of high significance.</p>				
<p><b>Field Rating</b> (Recommended grading or field significance) of the site:</p>	<p>Generally protected (GP.B)</p>				
<p><b>Impact Evaluation</b> of development on site</p>	<p>Impact on site is seen as low negative as no mining is envisaged for the area around the site.</p>				
<p><b>Recommendations</b> including:</p>	<p>It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.</p>				
<p><b>Summary</b></p>					
<p><b>Significance Rating</b></p>	<p><b>Field Rating</b></p>	<p><b>Probability</b></p>	<p><b>Extent</b></p>	<p><b>Duration</b></p>	<p><b>Intensity</b></p>
<p>2</p>	<p>GP.B</p>	<p>1</p>	<p>1</p>	<p>0</p>	<p>0</p>

**6.9 2529DD-PGS008**

<p><b>Description of Site:</b> <b>Site Number</b></p>	<p>2529DD-PGS008</p>	
<p><b>Map reference</b></p>	<p><b>Topo-sheet number</b></p>	<p><b>Number of Map in report</b></p>
	<p><b>2529DD</b></p>	<p><b>Annexure A</b></p>


<b>GPS coordinates:</b> <i>Indicate Model and datum - WGS 84</i>	X	Y
Garmin 60Csx, WGS 84	S25.89888	E29.76470
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The cemetery is situated on Portion 3 of the farm Tweefontein. The site is in a maize field. The site of this cemetery was indicated by the local farmer Mr Theo Kleynhans. He could not confirm the amount of graves in the cemetery and vegetation cover made the counting of graves impossible.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	50x40m	
<b>Photographs and diagrams</b> (Figure numbers)	 <p style="text-align: center;"><i>Figure 12 - Photo of cemetery</i></p>	
<b>Statement of Significance</b> (Heritage Value)	The site is of high significance.	
<b>Field Rating</b> (Recommended grading or field significance) of the site:	Generally protected (GP.B)	
<b>Impact Evaluation of development on</b>	Impact on site is seen as low negative as no mining is envisaged in the area.	



<i>site</i>					
<b>Recommendations including:</b>	It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.				
<b>Summary</b>					
<b>Significance Rating of Impact</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
2	GP.B	1	1	0	0

### 6.10 2529DD-PGS009

<b>Description of Site:</b>		
<b>Site Number</b>	2529DD-PGS009	
<b>Map reference</b>	<b>Topo-sheet number</b>	<b>Number of Map in report</b>
	<b>2529DD</b>	<b>Annexure A</b>
<b>GPS coordinates:</b> <i>Indicate Model and datum - WGS 84</i>	X	Y
Garmin 60Csx, WGS 84	S25.91395	E29.76516
<b>Site Data</b>	<b>Description</b>	
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	The site is situated on Portion 4 of the farm Tweefontein. It consist of the remains of an old stone built kraal and the foundations of a farm house.	
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic	
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	200x100m	

<p><b>Photographs and diagrams</b> (Figure numbers)</p>	 <p style="text-align: center;"><i>Figure 13 - Photo of stone kraal</i></p>					
<p><b>Statement of Significance</b> (Heritage Value)</p>	<p>The site is of low significance.</p>					
<p><b>Field Rating</b> (Recommended grading or field significance) of the site:</p>	<p>Generally protected (GP.A)</p>					
<p><b>Impact Evaluation</b> of development on site</p>	<p>Impact on site is seen as low negative as no mining is envisaged in the area.</p>					
<p><b>Recommendations</b> including:</p>	<p>No further action required.</p>					
<p><b>Summary</b></p>						
<p><b>Significance Rating of Impact</b></p>	<p><b>Field Rating</b></p>	<p><b>Probability</b></p>	<p><b>Extent</b></p>	<p><b>Duration</b></p>	<p><b>Intensity</b></p>	
<p>2</p>	<p>GP.A</p>	<p>1</p>	<p>1</p>	<p>0</p>	<p>0</p>	

**6.11 2529DD-PGS010**

<p><b>Description of Site:</b> <b>Site Number</b></p>	<p>2529DD-PGS010</p>	
<p><b>Map reference</b></p>	<p><b>Topo-sheet number</b></p>	<p><b>Number of Map in report</b></p>
	<p><b>2529DD</b></p>	<p><b>Annexure A</b></p>
<p><b>GPS coordinates:</b> Indicate Model and datum - WGS 84</p>	<p>X</p>	<p>Y</p>

Garmin 60Csx, WGS 84	S25.92141	E29.76779			
<b>Site Data</b>	<b>Description</b>				
<b>Type of site</b> (e.g. open scatter; shell midden, cave /shelter);	Consist of a cemetery with an unknown amount of graves. Due to access problems the site could not be visited. Mr Theo Kleynhans, the farmer on the property indicated the presence of a cemetery in the area of the coordinates.				
<b>Site categories</b> (e.g. Earlier Stone Age, Late Iron Age);	Recent Historic				
<b>Estimation or measurement of the extent</b> (maximum dimensions) and orientation of the site(s);	Unknown				
<b>Photographs and diagrams</b> (Figure numbers)	None available.				
<b>Statement of Significance</b> (Heritage Value)	The site is of high significance.				
<b>Field Rating</b> (Recommended grading or field significance) of the site:	Generally protected (GP.B)				
<b>Impact Evaluation</b> of development on site	Impact on site is seen as low negative, as no mining is envisaged in the area of the cemetery.				
<b>Recommendations</b> including:	It is recommended that the site be fenced and a buffer of 20 meters be left around the site if mining is to move closer to this site.				
<b>Summary</b>					
<b>Significance Rating of impact</b>	<b>Field Rating</b>	<b>Probability</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>
2	GP.B	1	1	0	0

## 7. ASSUMPTIONS AND LIMITATIONS

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

dense vegetation cover. As such, should any 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 has been able to make an assessment as to the significance of the site (or material) in question. This is true for graves and cemeteries as well.

Survey conditions were seriously hampered by rainy conditions and excessive vegetation growth that made surveying of the area difficult.

## **8. LEGAL AND POLICY REQUIREMENTS**

### **8.1 General principles**

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

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

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

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

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

Anyone who intends to undertake a development must notify the heritage resource authority and if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the developer's cost. Thus developers

will be able to proceed without uncertainty about whether work will have to be stopped if a heritage resource is discovered.

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

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

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

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

### **8.1 Graves and cemeteries**

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

and transport human remains the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation. If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

## **9. ASSESSMENT AND RECOMMENDATIONS**

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

During the survey 11 sites of varying heritage significance were identified. Of the 11 sites seven are cemeteries of which one is directly impacted on. A further two cemeteries may be impacted on due to their proximity to the mining areas.

A further one site of high heritage significance was identified outside the mining area that could be impacted on by blasting activities. Due to proposed concerns regarding the cumulative impacts of blasting activities in the area, this letter has been included in the AIA to be considered in the EIA/EMP for the proposed project. Although this heritage structure is not included in the projects area and will not be directly affected by mining activities, it has been documented in the regional proximity of the project area and must be monitored as part of the EIA/EMP.

**The Cass family homestead** - The Homestead is situated on Portion 2 of the farm Mooifontein. The homestead and outbuildings date 1900 to 1930. The overall condition of the site is very well preserved and is still utilised as residence and farm buildings. The Provincial Heritage Resources Agency (PHRA) has provided the Cass family with a letter stating the importance of the farmstead. (Refer to **Annexure B**)

**Heritage Site within the mining area****2529DC-PGS001**

Is as homestead currently occupied.

*Mitigation:* During negotiations for the relocation of the homestead, it will be necessary to ascertain the possibility of child burial around the homestead.

In the event that it is discovered that there where child burials a grave relocation process must be initiated to handle the relocation of such remains in a dignified and legal manner with the consent of the family involved.

**2529DD-PGS001, PGS 005 and PGS009**

Are the remains of previous homesteads. All three show the foundations of previous houses and has in all cases been cleared of rubble. Some outbuildings and kraals are evident.

*Mitigation:* No further action required.

**2529DD-PGS002**

The site is a cemetery consisting of 11 graves, of which 7 are aligned east-west and 4 aligned north-south.

*Mitigation:* It is recommended that the site be fenced to protect against any inadvertent damage during mining.

**2529DD-PGS003**

The site consists of a homestead with associated outbuildings. The current family, the Mokoenas, is in the process of being relocated to a new area as negotiated with the mining company.

During discussion with the family it was also ascertained that no child burials occur in or around the houses.

Some 50 metres to the east of the farmstead an associated cemetery consisting of three graves have been identified during the homestead relocation process. The graves are those belonging to Elias Sibanyone and Husie Nhlapo.

Negotiations on the relocation of the graves are currently on the way and the process is being conducted to comply with all legal requirements.

*Mitigation:* The grave relocation process is to be concluded to conform to all legal requirements.

**2529DD-PGS004**

The site consists of three graves with headstones. The one headstone reads Andries Mothswene – 1945.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters is left around the site if mining is to move closer to this site.

#### **2529DD-PGS006**

The site consists of approximately 6 graves. Vegetation density made the counting of the graves difficult. On headstone indicates the surname Shabambo.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters is left around the site if mining is to move closer to this site.

#### **2529DD-PGS007**

The site consists of three sandstone graves. The headstones are weathered and only the surname Nuwenhuizen and the dates Born 1879 and died 1924 are legible.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters is left around the site if mining is to move closer to this site.

#### **2529DD-PGS008**

The site of this cemetery was indicated by the local farmer Mr Theo Kleynhans. He could not confirm the amount of graves in the cemetery and vegetation cover made the counting of graves impossible.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters is left around the site if mining is to move closer to this site.

#### **2529DD-PGS010**

Consist of a cemetery with an unknown amount of graves. Due to access problems the site could not be visited. Mr Theo Kleynhans, the farmer on the property indicated the presence of a cemetery in the area of the coordinates.

*Mitigation:* It is recommended that the site be fenced and a buffer of 20 meters is left around the site if mining is to move closer to this site.

In the event that any of the cemeteries identified in the mining area are to be impacted directly by mining a grave relocation process should be initiated.

***The grave relocation process*** must contain the following:

- 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.

### **General**

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

## **10. LIST OF PREPARES**

Wouter Fourie, BA (Hon) Archaeology (UP)

## **11. REFERENCES**

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

Standard and Guidance for Archaeological Desk-Based Assessment. 1994.

International Council of Monuments & Site Documents. 2002 Conventions, Charters and Guidelines.

Documents on Cultural Heritage Protection. 2002.

International Council of Monuments & Site Documents. 1985 Guidelines to the Burra Charter: Conservation Policy.

International Council of Monuments & Site Documents. 1984 Guidelines to the Burra Charter: Cultural Significance.

Australian Heritage Commission. 2001. Australian Historic Themes. A Framework for use in Heritage Assessment and Management.

South African Heritage Resources Agency, 2006. Minimum standards: archaeological and palaeontological components of impact assessment reports.

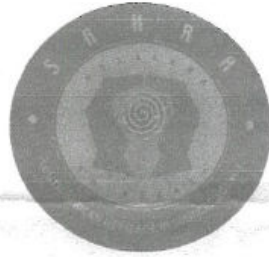
Archival Documents



**ANNEXURE A:  
Study area  
And heritage sites**



**Annexure B**  
**PHRA Letter to Cass family on farmstead**

**SOUTH AFRICAN HERITAGE RESOURCES AGENCY**

18 PILGRIM STREET, BARBERTON, 1300 P. O. BOX 11004, BARBERTON, 1300

TEL: (013) 712 3050 FAX: (013) 712 8503

OUR REF: 9/2/242/25

YOUR REF: Mr F Erasmus

ENQUIRIES: 12 February 2004

DATE: Mrs Christa Cass  
P O Box 31  
ARNOT  
1051

Dear Christa

**Historic farm dwelling: Modfontein, Middelburg District**

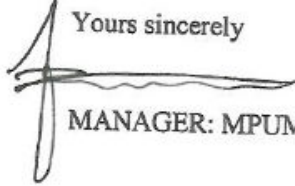
Our site meeting on 2 February 2004 refers. Herewith written confirmation of matters discussed:

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 "oukclip" 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

A handwritten signature in black ink, consisting of a large, stylized 'A' followed by a horizontal line and a vertical stroke.

MANAGER: MPUMALANGA