

PHASE ONE HERITAGE IMPACT ASSESSMENT OF THE PROPOSED EXPANSION OF THE MAGDALENA COLLIER NEAR DUNDEE.



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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A first phase heritage survey of the proposed expansion of the Magdalena Colliery near Dundee identified fifty two heritage sites. These sites include two Later Iron Age Sites, and fifty Grave Sites. Two Iron Age Sites and two Grave Sites are situated more than 70m from the proposed mining band expansion as outlined by the developer. No mitigation is necessary. However, a buffer of 25m must be maintained around these sites. Subsequent to the initial ground survey local community members identified a further forty eight potential Grave Sites. These graves are unmarked and often invisible to the naked eye. They are situated within the proposed mining band and mitigation would be required before development may occur within their immediate surrounds. A second phase heritage impact assessment, by a grave relocation expert, will be required should the developer decide to expand the mining operations towards this area. It is also suggested that this second phase heritage impact assessment include an active community consultation process as the oral data presented by community members may not accord with physical ground survey of the area. A second phase heritage impact assessment will include the application of a permit from Amafa and the possible exhumation of relevant graves. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for GCS
Type of development:	Forbes Coal want to extend their open cast coal mine at Magdalena Colliery onto the adjacent property (Fig 1). The extended open cast footprint will be 2350m long and 315m wide extending north from the existing open cast pit with an approximate area of 74 ha (Fig 2).
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

1.1. Details of the area surveyed:

The project area is located approximately 30km north of Dundee and approximately 15km north-east of Dannhauser (Fig 1). It is situated within the Amajuba District Municipality. The coordinates of the project area are: 27° 56' 49.33" S 30° 10' 07.37". The footprint comprises a band approximately 2350m long and 315m wide extending north from the existing open cast pit with an approximate area of 74 ha (Fig 2). It comprises mainly rural residential area which is intercepted by planted fields, open areas, woodlands, and overgrazed grassland areas. Dongas and sheet erosion scars occur to the north and south of the band. Some contemporary Zulu homesteads occur within the band. Activities associated with small-scale subsistence farming are evident in and around these homesteads that are situated on small square plots.

BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Dannhauser area has never been systematically surveyed for archaeological heritage sites. Only five sites are recorded in the data base of the KwaZulu-Natal Museum. These include two rock art sites with later Stone Age material and three Later Iron Age sites with characteristic stone walling. Oliver Davies, a pioneer archaeologist, has also recorded Middle Stone Age sites in the greater Dannhauser area. None of these heritage sites occur in the immediate vicinity of the project area.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers crossed the Limpopo River and arrived in South Africa. Around 800 years ago, if not earlier, Bantu-speaking farmers also settled in the greater Dannhauser area. Although some of the sites constructed by these African farmers consisted of stone walling not all of them were made from stone. Sites located elsewhere in the KwaZulu-Natal Midlands show that many settlements just consisted of wattle and daub structures. These Later Iron Age sites were most probably inhabited by Nguni-speaking groups such as the amaBhele and others (Bryant 1965). However, by 1820 the original African farmers were dispersed from this area due to the expansionistic policies of the Zulu Kingdom of King Shaka. African refugee groups and individuals were given permission to settle in the area by the British colonial

authorities after 1845 where most of them became farm labourers. After the Anglo-Zulu war of 1879 and the Bambatha Rebellion of 1911 many of the African people in the study area adopted a Zulu ethnic identity.

European settlement of the area started soon after 1838 when the first Voortrekker settlers marked out large farms in the area. However, most of these farms were abandoned in the 1840's when Natal became a British colony only to be reoccupied again by British immigrants.

The presence of coal in the greater Dundee area was observed by many early travellers. The Voortrekkers, during their battles with the Zulus found coal in the beds of streams such as the Steenkoolspruit (coal stream) and in 1839 the British garrison commander in Durban, Captain Jervis, sent samples of coal to the Governor of the Cape. In their kitchens farmers burned coal obtained from surface outcrops on their lands and it was one of them, Peter Smith of Talana farm, who started sending wagonloads of coal to be marketed in Pietermaritzburg. This enterprise, in 1862, actually started the coal industry. In 1880 the first proper geological survey was made of the Natal coalfields, by which it was proved that workable deposits were found on the farms Dundee and Coalfields. By that time, Peter Smith had already marketed over 7000 tons of coal. With Dugald MacPhail and Charles Wilson as partners, he developed mining substantially, forming the Dundee Coal and estate Company. In 1882 he laid out a town on the farm Dundee to create a center for the coalfields. In 1902 this township finally became a municipality. Dannhauser had its beginnings in 1872 on the farm Palmietfontein and it like Dundee also developed into a busy coal-mining centre.

2 BACKGROUND INFORMATION OF THE SURVEY

2.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted for previous heritage surveys and heritage site data covering the project area. In addition, the available archaeological and heritage literature covering the greater Dannhauser area was also consulted.

A ground survey, following standard and accepted archaeological procedures, was conducted. Particular attention was focused on the contemporary Zulu homesteads situated within the proposed mining band in order to locate graves and other features of heritage significance.

2.2 Restrictions encountered during the survey

2.2.1 Visibility

Visibility was good.

2.2.2 Disturbance

No disturbance of any potential heritage features was noted.

2.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

3 DESCRIPTION OF SITES AND MATERIAL OBSERVED

3.1 Locational data

Province: KwaZulu-Natal

Municipality: Amajuba District Municipality

Towns: Dundee, Dannhauser

3.2 Description of the general area surveyed

Fifty two sites were located during the survey. These include two Late Iron Age Sites and Fifty Grave Sites. The Iron Age and two Grave Sites are situated more than 70m from the band demarcated for mining. They are not threatened by the proposed mining activities. Seventy individual graves, associated with Grave Site 1, appear to be older than 70 years. These grave sites are therefore protected by heritage legislation. Subsequent to the initial ground survey local community members identified another

fourty eight potential Grave Sites. These potential Grave Sites are mostly unmarked and their location is based on oral data and memory. They are all located within the proposed mining band. Their context need to be affirmed by a grave relocation expert. However, their GPS positions are indicated in this report as to sensitize the developers towards community graves in the area.

A more detailed description of the context of these sites is presented in Tables 2 & 3.

Table 2. Heritage sites located during the ground survey.

No	Heritage site category	Brief description	Significance (Table 3)	Mitigation	GPS Latitude and Longitude
1	Grave Site 1	A rural cemetery covering an area of approximately 40m x 20m. It contains approximately 70 individual graves all arranged in vertical rows. The graves are unmarked and consist of soil and stone heaps of approximately 2m x 3m each (Figs 3 & 4).	Many of the graves in this cemetery appear to be older than 60 years. They are therefore protected by heritage legislation. It appears that this cemetery catered for the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the cemetery. No disturbance is allowed within the buffer zone. There is no need to motivate for mitigation as this cemetery is situated more than 100m to the north of the proposed mining band expansion. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process	S 27° 56' 33.78" E 30° 10' 13.52"

				will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
2	Grave Site 2	A small informal cemetery consisting of 9 individual grave sites (Figs 3 & 5). The graves are arranged in two vertical rows. Each grave covers an area of approximately 2m x 3m. They consist of unmarked soil and stone heaps. The graves appear to be younger than 60 years old (Figs 3 & 5).	The cemetery is rated as of medium significance locally (Table 3).	Strictly maintain a 15m buffer zone around the cemetery. This small cemetery is situated approximately 70m to the north of the proposed mining band expansion. There is no need for mitigation as the site is not threatened by the proposed development. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A comprehensive community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 27.59" E 30° 10' 42.54"
3	Grave Site 3	Three informal graves associated with an existing homestead (Figs 3 & 6). The graves consist of unmarked soil and stone heaps. Each grave covers an area of	The Grave Site is rated as of medium significance locally (Table 3).	Strictly maintain a 15m buffer zone around the grave Site. These graves are situated approximately 70m to the north of the proposed mining band expansion.	S 27° 56' 23.59" E 30° 10' 44.48"

		approximately 1.5m x 2.8m. The graves appear to be younger than 60 years old.		<p>There is no need for mitigation as the site is not threatened by the proposed development.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A comprehensive community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	
4	Later Iron Age Site 1	Two stone circles of approximately 4m x 5m each. The site appears to be the remains of an ancient homestead. Similar sites were built by early Nguni-speaking agropastoralists in KwaZulu-Natal in the late 18 th century and early to middle 19 th century (Figs 3 & 7).	These sites are protected by provincial and national heritage legislation. This site is rated as of medium significance (Table 3). It may not be altered or destroyed under any circumstances.	Strictly maintain a 50m buffer zone around this site. This site is situated approximately 100m to the north of the proposed mining band expansion. There is therefore no need for mitigation. However, a second phase heritage impact assessment will be called for, to arrange for mitigation, should the developers decide to expand into this area.	S 27° 56' 21.35" E 30° 10' 41.00"
5	Later Iron Age Site 2	Three individual stone walled circles	These sites are protected by	Strictly maintain a 50m buffer zone	S 27° 56' 23.74" E 30°

		of approximately 4m x 5 m each. This site was most probably an ancient homestead inhabited by early Nguni-speaking agropastoralists in the 18 th and 19 th centuries AD. It is possible that this site is an extension of Later Iron Age Site 1 (Figs 3 & 8).	provincial and national heritage legislation. This site is rated as of medium significance (Table 3). It may not be altered or destroyed under any circumstances	around this site. This site is situated approximately 80m to the north of the proposed mining band expansion. There is therefore no need for mitigation. However, a second phase heritage impact assessment will be called for, to arrange for mitigation, should the developers decide to expand into this area.	10' 41.01"
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Table 3. Grave Sites indicated by local community members.

No	Heritage site category	Brief description	Significance (Table 3)	Mitigation	GPS Latitude and Longitude
1	Grave Site 4 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation	S 27° 56' 41.07" E 30° 10' 6.26"

				expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
2	Grave Site 5 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 43.35" E 30° 10' 10.50"
3	Grave Site 6 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into	S 27° 56' 43.15" E 30° 10' 16.71"

			(Table 3).	this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
4	Grave Site 7 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 46.06" E 30° 10' 23.98"
5	Grave Site 8 (Fig 3b)	A Grave Site indicated by local community members. This site needs further	There is a real possibility that some of these graves are older than 60 years as	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is	S 27° 56' 46.98" E 30° 10' 12.83"

		<p>evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	
6	Grave Site 9 (Fig 3b)	<p>A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave</p>	<p>S 27° 56' 48.45" E 30° 10' 11.71"</p>

				exhumation and reburial (Appendix 1).	
7	Grave Site 10 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 49.68" E 30° 10' 11.65"
8	Grave Site 11 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a	S 27° 56' 50.96" E 30° 10' 9.20"

				grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
9	Grave Site 12 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.77" E 30° 10' 11.80"
10	Grave Site 13 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining	S 27° 56' 52.01" E 30° 10' 18.80"

			significance locally (Table 3).	development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
11	Grave Site 14 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 48.28" E 30° 10' 20.80"
12	Grave Site 15 (Fig 3b)	A Grave Site indicated by local community members. This	There is a real possibility that some of these graves are older	Strictly maintain a 15m buffer zone around the Grave Site. No	S 27° 56' 51.55" E 30° 10' 0.02"

		<p>site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	
13	Grave Site 16 (Fig 3b)	<p>A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for</p>	<p>S 27° 56' 52.72" E 30° 10' 1.27"</p>

				potential grave exhumation and reburial (Appendix 1).	
14	Grave Site 17 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 53.77" E 30° 9' 57.44"
15	Grave Site 18 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be	S 27° 56' 55.34" E 30° 9' 57.06"

				conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
16	Grave Site 19 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 57' 3.55" E 30° 10' 25.79"
17	Grave Site 20 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand	S 27° 57' 2.37" E 30° 10' 32.15"

			as of high significance locally (Table 3).	the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
18	Grave Site 21 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 58.26" E 30° 10' 34.96"
19	Grave Site 22 (Fig 3b)	A Grave Site indicated by local community	There is a real possibility that some of these	Strictly maintain a 15m buffer zone around the Grave	S 27° 57' 0.69" E 30° 10'

		<p>members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	<p>35.60"</p>
20	Grave Site 23 (Fig 3b)	<p>A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to</p>	<p>S 27° 57' 0.79" E 30° 10' 39.14"</p>

				arrange for potential grave exhumation and reburial (Appendix 1).	
21	Grave Site 24 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 57' 7.47" E 30° 10' 26.83"
22	Grave Site 25 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This	S 27° 57' 10.00" E 30° 10' 26.57"

				phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
23	Grave Site 26 (Fig 3b)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 50.96" E 30° 10' 9.20"
24	Grave Site 27 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area.	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers	S 27° 56' 52.72" E 30° 10' 1.27"

		from this site.	It is therefore rated as of high significance locally (Table 3).	decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
25	Grave Site 28 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
26	Grave Site 29 (Fig 3c)	A Grave Site indicated by local	There is a real possibility that	Strictly maintain a 15m buffer zone	S 27° 56' 52.72"

		<p>community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>around the Grave Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	<p>E 30° 10' 1.27"</p>
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27	Grave Site 30 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
28	Grave Site 31 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation	S 27° 56' 52.72" E 30° 10' 1.27"

				expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
29	Grave Site 32 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
30	Grave Site 33 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into	S 27° 56' 52.72" E 30° 10' 1.27"

			(Table 3).	this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
31	Grave Site 34 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
32	Grave Site 35 (Fig 3c)	A Grave Site indicated by local community members. This site needs further	There is a real possibility that some of these graves are older than 60 years as	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is	S 27° 56' 52.72" E 30° 10' 1.27"

		<p>evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	
33	Grave Site 36 (Fig 3c)	<p>A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave</p>	<p>S 27° 56' 52.72" E 30° 10' 1.27"</p>

				exhumation and reburial (Appendix 1).	
34	Grave Site 37 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
35	Grave Site 38 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a	S 27° 56' 52.72" E 30° 10' 1.27"

				grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
36	Grave Site 39 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
37	Grave Site 40 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining	S 27° 56' 52.72" E 30° 10' 1.27"

			significance locally (Table 3).	development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
38	Grave Site 41 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
39	Grave Site 42 (Fig 3c)	A Grave Site indicated by local community members. This	There is a real possibility that some of these graves are older	Strictly maintain a 15m buffer zone around the Grave Site. No	S 27° 56' 52.72" E 30° 10' 1.27"

		<p>site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).</p>	
40	Grave Site 43 (Fig 3c)	<p>A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.</p>	<p>There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).</p>	<p>Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone.</p> <p>However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for</p>	<p>S 27° 56' 52.72" E 30° 10' 1.27"</p>

				potential grave exhumation and reburial (Appendix 1).	
41	Grave Site 44 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
42	Grave Site 45 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be	S 27° 56' 52.72" E 30° 10' 1.27"

				conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
43	Grave Site 46 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
44	Grave Site 47 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand	S 27° 56' 52.72" E 30° 10' 1.27"

			as of high significance locally (Table 3).	the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
45	Grave Site 48 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
46	Grave Site 49 (Fig 3c)	A Grave Site indicated by local	There is a real possibility that	Strictly maintain a 15m buffer zone	S 27° 56' 52.72"

		community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	E 30° 10' 1.27"
47	Grave Site 50 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to	S 27° 56' 52.72" E 30° 10' 1.27"

				be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
48	Grave Site 51 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	S 27° 56' 52.72" E 30° 10' 1.27"
49	Grave Site 52 (Fig 3c)	A Grave Site indicated by local community members. This site needs further evaluation by a grave relocation expert should the developers decide to mine within 15m from this site.	There is a real possibility that some of these graves are older than 60 years as they may relate to the first migrant workers who worked on the coal mines in the area. It is therefore rated as of high significance locally (Table 3).	Strictly maintain a 15m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. However, should the developers decide to expand the mining development into this area then a second phase heritage impact	S 27° 57' 38.90" E 27° 57' 38.90"

				assessment must be called for. This phase must be conducted by a grave relocation expert. A community consultation process will have to be initiated to arrange for potential grave exhumation and reburial (Appendix 1).	
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4 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

4.1 Field Rating

The Grave Sites are rated as high significance locally. All graves, including those located outside a formal cemetery, are protected by KwaZulu Natal provincial Heritage legisla The Later Iron Age Sites are rated as Generally Protected A. They are rated as of high to medium significance and are protected by heritage legislation.

Table 3. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

5 RECOMMENDATIONS

The proposed expansion of the coal mining activities may proceed but under the following conditions:

- A buffer zone of 50 m must be strictly maintained around the two Later Iron Age Sites. No development or removal and alternation of items or features may take place within this buffer zone. There is no need to erect a fence or a barrier to prevent possible damage as all these sites are situated more than 70m to the north of the proposed mining band expansion.
- A buffer zone of 15m but preferably 20m (where possible) must be maintained around the identified Grave Sites 1 - 3. No development or removal and alternation of items or features may take place within this buffer zone. There is no need to erect a fence or a barrier to prevent possible damage as all these sites are situated more than 70m to the north of the proposed mining band expansion. However, should the developer expand within 15m from the grave sites then a fence with an entrance gate must be erected around the site.
- However, the potential grave sites identified by local community members do occur within the proposed mining band. Mitigation will be required before mining may be allowed within this band. Such mitigation will take place under the auspices of Amafa, the local heritage agency.
- Should the developer wish to expand the mining band to the north and develop within the buffer zones then mitigation measures must be initiated under the auspices of the local heritage agency Amafa. This will include a second phase heritage impact assessment, the application for a permit, and the possible exhumation of certain graves (Appendix 1). The second phase heritage impact assessment must include a large local community consultation process. It must be conducted by a grave relocation expert who will be able to assess the oral data of the community on the ground.

Apart from these concerns there is no archaeological reason why the proposed mining expansion may not take place on the remainder of the project area as planned. It should, however, be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues should cease immediately

pending an evaluation by the heritage authorities. It is also possible that community consultation, may indicate additional graves that were not visible during the initial heritage survey of the project area. These must also be evaluated during a second phase heritage impact assessment.

6 MAPS AND FIGURES

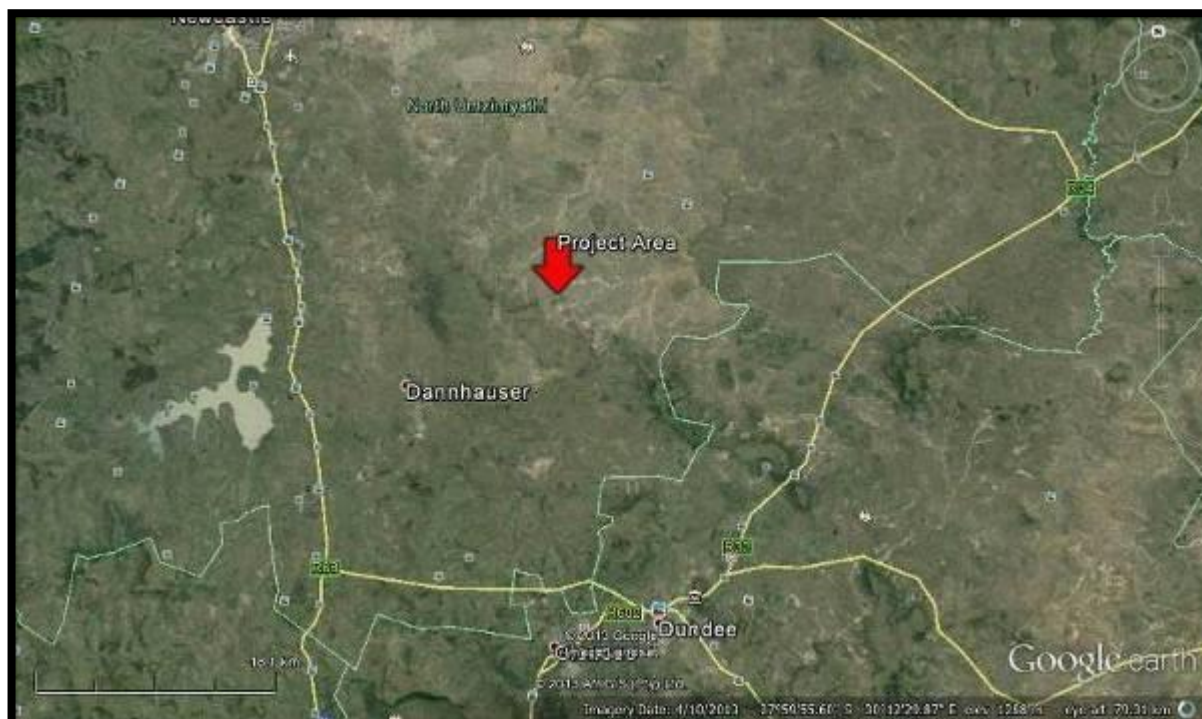


Figure 1. Google aerial photograph showing the location of the project area near Dannhauser, KwaZulu-Natal.



Figure 2. Map showing the locality of the project area. The white demarcated area indicates the proposed mining band extension.



Figure 3a. Google aerial photograph showing the location of heritage sites in the northern section of project area. None of these sites occur within the proposed mining band expansion



Figure 3b. Google aerial photograph showing the location of heritage sites in the central section of the project area. The red line indicates the area demarcated for the proposed mining band expansion.

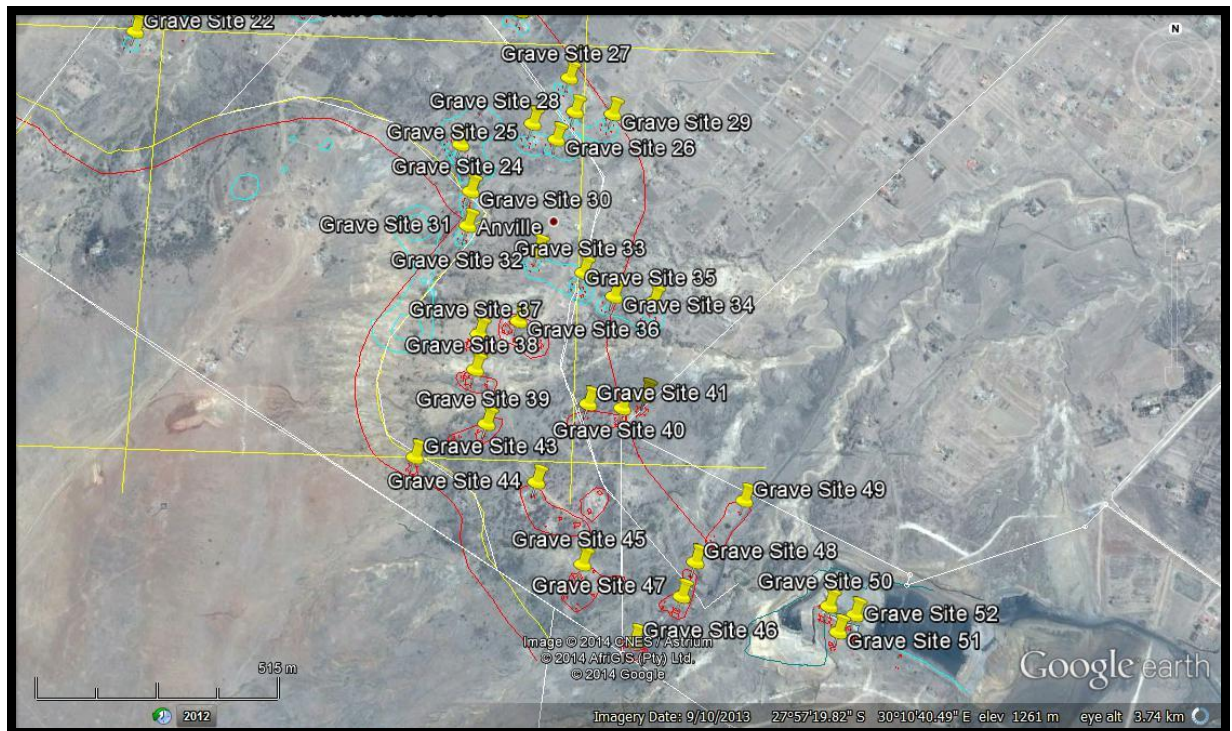


Figure 3c. Google aerial photograph showing the distribution of heritage sites within the southern section of the project area. The two red lines demarcate the proposed mining band expansion area. All the Grave Sites in the southern portion of the project area occurs within the proposed mining band.



Figure 4. Photograph of Grave Site 1 a rural cemetery containing almost 80 individual graves.



Figure 5. Photograph of Grave Site 2



Figure 6. Photograph of Grave Site 3



Figure 7. Photograph of later Iron Age Site 1



Figure 8. Photograph of Iron Age Site 2. This site may be an extension of Iron Age Site 1

7 REFERENCES

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APPENDIX 1

RELOCATION OF GRAVES

Burial grounds and graves are dealt with in Article 36 of the NHR Act, no 25 of 1999. Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.
- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a

requirement by law.

- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave

