



Status Quo and pre-mitigation Heritage Impact Assessment Report for Burials Identified during Phase 1 Impact Assessment Study for South 32 mining expansion in Steve Tshwete Local Municipality, in Mpumalanga Province.

July 2019

Compiled by:

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DOCUMENT INFORMATION

Item	Description
Proposed development and location	South32 South Africa Coal Holdings (SAEC) intends to relocate approximately 250 graves affected by Iliifaletu Colliery expansion project
Title	Status Quo and pre-mitigation Heritage Impact Assessment Report for Burials Identified during Phase 1 Impact Assessment Study for South 32 mining expansion in Steve Tshwete Local Municipality, in Mpumalanga Province.
Purpose of the study	The purpose of this document is a status quo report that describes the affected burial sites, the condition of graves and the status of the affected graves
1:50 000 Topographic Map	
Coordinates	See Figures 1-6
Municipalities	Steve Tshwete Local Municipality
Predominant land use of surrounding area	Vacant, agricultural, mining, road and transport.
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Date of Report	20 July 2019
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ACKNOWLEDGEMENTS

The author acknowledges the assistance of South32 for the provision of maps of affected areas and potential custodians. Special thanks go to the various families who availed themselves for the consultation meetings and grave verification.

MANAGEMENT SUMMARY

BACKGROUND

South 32 commissioned this study. The study focuses on graves and burial grounds identified within South32 South Africa Coal Holdings (SAEC)'s Ifaletu Colliery expansion Project. Ifaletu Colliery is located south of Middelburg within the Steve Tshwete Local Municipality of Mpumalanga Province, South Africa. It is located approximately 120 km east of Johannesburg and 15km to 20km the south of the town of Middleburg. Four burial sites were identified within the mining expansion site on the farm Wolvefontein 471JS in Steve Tshwete Local Municipality of in Mpumalanga Province. Mafu's Funeral Home, in collaboration with Sativa Heritage, was retained by South32 to undertake Phase 2 heritage mitigation study for the burial grounds and graves recorded within the footprint of the proposed mining expansion. Sativatec archaeologists and heritage specialists conducted field survey to assess four burial sites affected by the proposed mining expansion. The study confirmed that only two of the four burial sites will be directly affected by the proposed coal mining expansion. The study observed that the burial sites cannot be preserved *in situ* because they fall within 500m radius of the blasting area as prescribed by DMR Regulations.

RESULTS OF THE SURVEY

Sativatec heritage specialist team surveyed the proposed coal mining right site. The purpose of the survey was to confirm the location, distribution of burial ground and grave sites and to assess their condition and status in the context of proposed mining expansion. An estimated 250 graves located at 2 sites referred to as Burial Site A and Burial Site C were recorded. The two sites are within 2km from each other. The study established that the graves are a mixture of burials older than 60 years and some younger than 60 years. This means that both SAHRA Burial permit and Department of Health permit will be required to relocate the affected graves. Evidence on the ground indicate that most graves are neglected and are no longer clearly visible. Even some of the custodians who came to verify their family graves could not locate some of the claimed graves. Preliminary consultations indicated that some of the custodians still live within the nearby farms while the majority live in Middelburg, Witbank, Hendrina and Denilton. All the graves in these burial grounds are on the direct path of the proposed mining expansion.

RECOMENDATIONS

- Burial site Burial Site A and Burial Site C are on the direct footprint of the proposed mining right area. As such the burial sites cannot be preserved in situ. A grave relocation plan must be mooted in accordance with the dictates of the NHRA and the Human Tissue Act.
- The study observed that there are graves which are older than 60 years which falls under SAHRA and graves younger than 60 years which falls under the Department of Health, therefore two burial permits must be obtained before any relocation of the graves takes place.
- The proposed relocation of graves must be announced through local radio stations, national newspaper and on-site notices. Note that the notices must be in IsiNdebele and English and must use the known traditional name for the farm ie KwaTokonya.
- During consultation, the archaeologist and social facilitators must explain the grave relocation procedure adequately to the custodians to avoid future disputes regarding the relocation of the graves.
- Potential custodians must be requested to follow proper channels of communication as indicated in the adverts and on-site notices to avoid confusion and duplication of the consultation process.
- The whole team working on the grave relocation project must understand that the Heritage legislation and the Human Tissue Act do not prescribe compensation for graves, however, they provide for rituals which may vary with families and the status of the deceased.
- Since mining has already started in the vicinity of the burial sites, access with direction signs must be created for families who still want to perform rituals at the sites.
- The survey confirmed that the affected landscape has a long history of human occupation making it an active cultural landscape where there is a possibility of encountering previously unknown graves in the project area during subsurface construction work.
- To date approximately 20% of the custodians have been identified. Therefore, more notices must be provided to ensure a wider coverage of the areas where custodians may have relocated to.
- In the likely event that no custodians will come forward or will be identified, the graves will be treated as unknown graves and as such they fall within the jurisdiction of the National Heritage Resources Act (NHRA) 25 of 1999 under the assumption and observation that some of the graves have been confirmed to be older than 60 years.
- The proposed mining will certainly destroy all identified burial grounds. As such these graves should be relocated to safe sites. Before any interference with the burial grounds and graves, an urgent permit application should be lodged with South African Heritage Resources Agency (SAHRA) Burial Grounds and Graves Unit and Department of Health to secure the relevant permission for urgent intervention to

rescue, salvage and relocate the burials to a safe and formal burial grounds in accordance with family wishes.

- The mining development will traverse through historic and active cultural landscape with historic and contemporary human settlements. This provides for a high probability of encountering chance finds and previously unknown graves during sub-surface construction work. Portions of the mine site is within historic homestead remains where there are high possibilities of encountering unmarked burials for infants that are traditionally buried in homesteads as opposed to being buried in cemeteries. As such, it is recommended that heritage-monitoring program be developed for implementation during the construction period.

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ABBREVIATIONS

AIA	Archaeological Impact Assessment
HIA	Heritage Impact Assessment
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMP	Environmental Management Plan
ASAPA	Association of South African Professional Archaeologists
CRM	Cultural Resource Management
NHRA	National Heritage Resources Act, Act 25 of 1999.
NEMA	National Environmental Management Act
EO / ECO	(Environmental Officer/ Environmental Control Officer)
PHRA	Provincial Heritage Resources Agency
SAHRA	South African Heritage Resources Agency
Sativatec	Sativa Travel and Environmental Consultants (Pty)
SAEC	South32 South Africa Coal Holdings (SAEC)

DEFINITIONS

Archaeological Material remains resulting from human activities, 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.

Burial site the location of any human grave or remains that have been interred, cremated or otherwise placed, and include ossuaries, single burials, multiple burials; rock cairns; cave or cache burials etc. not situated within a cemetery.

Burial Site which is defined as: a place outside a recognized cemetery where the remains of a cultural ancestor of indigenous people have been interred or otherwise placed.”

Chance Finds Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

Cultural Heritage Resources Same as Heritage Resources as defined and used in the South African Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible resources such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

Cultural Significance The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

EO or ECO (Environmental Officer/ Environmental Control Officer) is South32 official or Agency responsible for the administration of the land on which the site is located.

Grave A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery or burial ground.

Grave offering any object or objects associated with the human remains that may reflect the religious practices, customs or belief system of the interred.

Historic Material remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

Historic under the NH Resources Act this generally means something older than 60 years.

Human remains mean the remains of a dead human body and include partial skeletons, bones, cremated remains and complete human bodies that are found outside a recognized cemetery” (adapted from NHR Act)

In Situ material Material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

Material culture Buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Recognized cemetery a defined area of land that is set aside for the burial of human bodies.

Representative means a descendant of the interred or of the person whose remains are found, or where no descendant survives or is identified, an official representative of the appropriate custodians of the burial site or the closest culturally affiliated group, religious denomination, military or authority as evidenced by the location or mode of burial. Where no representative can be determined the Archaeologist shall act as the representative on unclaimed or unknown burials and the EO at Kusile at the discretion and with the consent of the SAHRA, the custodian representative group.

Site A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

Site disposition agreement means a written agreement to be reached between the EO and the representative of the interred regarding the disposition of the remains, including any disinterment and reinterment, and management plan management plan means a plan to identify the roles of the representative, Archaeologist and land owner or manager respecting the care and protection of the site, including a consideration of site records, site access, and ways to protect a site from disturbance until the proper exhumation, relocation and reburial is completed.

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

Heritage resources – This means any place or object of cultural significance.

1. INTRODUCTION

Mafu's Funeral Home was retained by South32 to conduct Phase 2 heritage mitigation for burial grounds and graves located within Ifaletu Colliery mining development (see figure: 1). Mafu's Funeral Home is working in collaboration with Sativatec. Sativatec's archaeologists and heritage specialists team conducted a field and site condition survey of the affected burial sites. The survey identified approximately 250 graves distributed in 2 burial grounds (Burial Site A and Burial Site C). The identified burial grounds are on the direct mine footprint cannot be preserved *in situ*.

This report provides the results of the field study conducted to confirm the status quo of the affected burial grounds within the mining development area. The study was conducted within the framework of the legislations including the Section 36 of the National Heritage Resources Act (Act No 25 of 1999) and will also apply the Human Tissue Act (1983) (also see Appendix 1-4).

2. AIM OF THE STUDY

The study was commissioned as part of a Phase 2 Heritage Mitigation exercise for South 32 mining development. The study is part of the proposed grave relocation mitigation process aimed at relocating identified graves from two affected sites (A&C) to safer locations in accordance with the wishes of affected families. In addition, the study sought to:

- ❑ Confirm the existence of the burial grounds and graves situated within the mining development site.
- ❑ Conduct site condition survey of all recorded burial grounds and gravesite in the project's primary and secondary footprint impact zone. The primary impact zone being the direct path of the mining development and the secondary impact zone being in the buffer zone where the recorded graves may be affected by auxiliary developments such as construction of access or construction roads, construction camps or material storage sites.
- ❑ Classify graves in terms of their age, form, condition and size to determine the appropriate burial permit to apply for each grave
- ❑ Gather family and deceased information inscribed on headstones in order to locate affected families.
- ❑ Make further recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the affected burial sites.
- ❑ Identify and discuss with local communities (where applicable) on potential impacts of the mining site and make the necessary recommendations on how to handle the matter.
- ❑ Take responsibility for communicating with SAHRA and other related authorities in order to obtain the relevant burial relocation permits and authorization.

3. SPECIALIST QUALIFICATIONS

Sativatec compiled this report on behalf of Mafu Funeral Home for South 32. Trust Mlilo (project leader), MA. (Archaeology), BA Hons, PDGE and BA & (Univ. of Pretoria) ASAPA (Professional member) and more than 15 years of experience in archaeological and heritage impact assessment and management. Mlilo is an accredited member of the Association for Southern African Professional Archaeologists (ASAPA), Amafa akwaZulu Natali and Eastern Cape Heritage Resources Agency (ECPHRA). He has conducted more than hundred AIA/HIA Studies, heritage mitigation work and heritage development projects over the past 15 years of service. The completed projects vary from Phase 1 and Phase 2 as well as heritage management work for government, parastatals (Eskom) and several private companies such as BHP Billiton, Afrimat and Rhino Minerals.

4. ASSUMPTIONS AND LIMITATIONS

Regardless of the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork were limited to graves and burial grounds starting with the sites that were already recorded within the mine plan map. As such the sites do not necessarily represent all the possible heritage resources present within the area. Other classes of heritage resources in the area were covered under the Phase 1 HIA study. This study was restricted to physically identifiable burial grounds and graves. This means graves concealed beneath the ground and covered by dense vegetation or have no visible signature are not accounted for herein. As such, should any burial/grave site (or any protected heritage features and/or objects for that matter) not included in the present inventory be located or observed, a heritage specialist must immediately be contacted assess the accidental find. Such observed or located heritage features and/or objects may not be disturbed or removed in any way until such time that the heritage specialist had been able to make an assessment as to the significance of the site (or material) in question. This applies to graves and cemeteries as well. In the event that any graves or burial places are located during the development the procedures and requirements pertaining to graves and burials will apply as set out below.

5. PROJECT DESCRIPTION AND LOCATION

South32 South Africa Coal Holdings (SAEC) is a 100 % shareholder of a converted mining right MP30/5/1/2/2/379MR for coal in respect of its Middelburg Colliery, a portion of the now referred to Ifaletu Colliery (Ifaletu). Middelburg Colliery is an operational opencast mine located approximately 25 km south of the Middelburg Town and approximately 35 km north-west of eMalahleni in the Mpumalanga Province. Middelburg Colliery comprises of three sections, known as the "North Section", the "Klipfontein Section" and the VanDyksdrift or Douglas Section".

Ifaletu Colliery consist of the Klipfontein, Hartebeesfontein, Goedehoop and Deep Far South reserves which is mined by opencast mining. The Klipfontein KE Pit Project (Pit KE) is a brownfields project within the greater Ifaletu Colliery area. Ifaletu Colliery is located south of Middelburg within the Steve Tshwete district of Mpumalanga Province, South Africa. It is situated approximately 120 km east of Johannesburg and 15km to 20km the south of the town of Middleburg. The project area occurs within the Wolfefontein 471JS farm boundary. Klipfontein KE pit is located on the western boundary of the Klipfontein KE and Klipfontein KP pit and boundaries on a tributary of the Broodsnyersplaas River, which discharges into the Olifant's River. The reserve has been identified as the most suitable mining area for a dragline at Ifaletu Colliery. Ifaletu intends on extending its current opencast mining operations at the Klipfontein Section by quarter 2 of FY20.

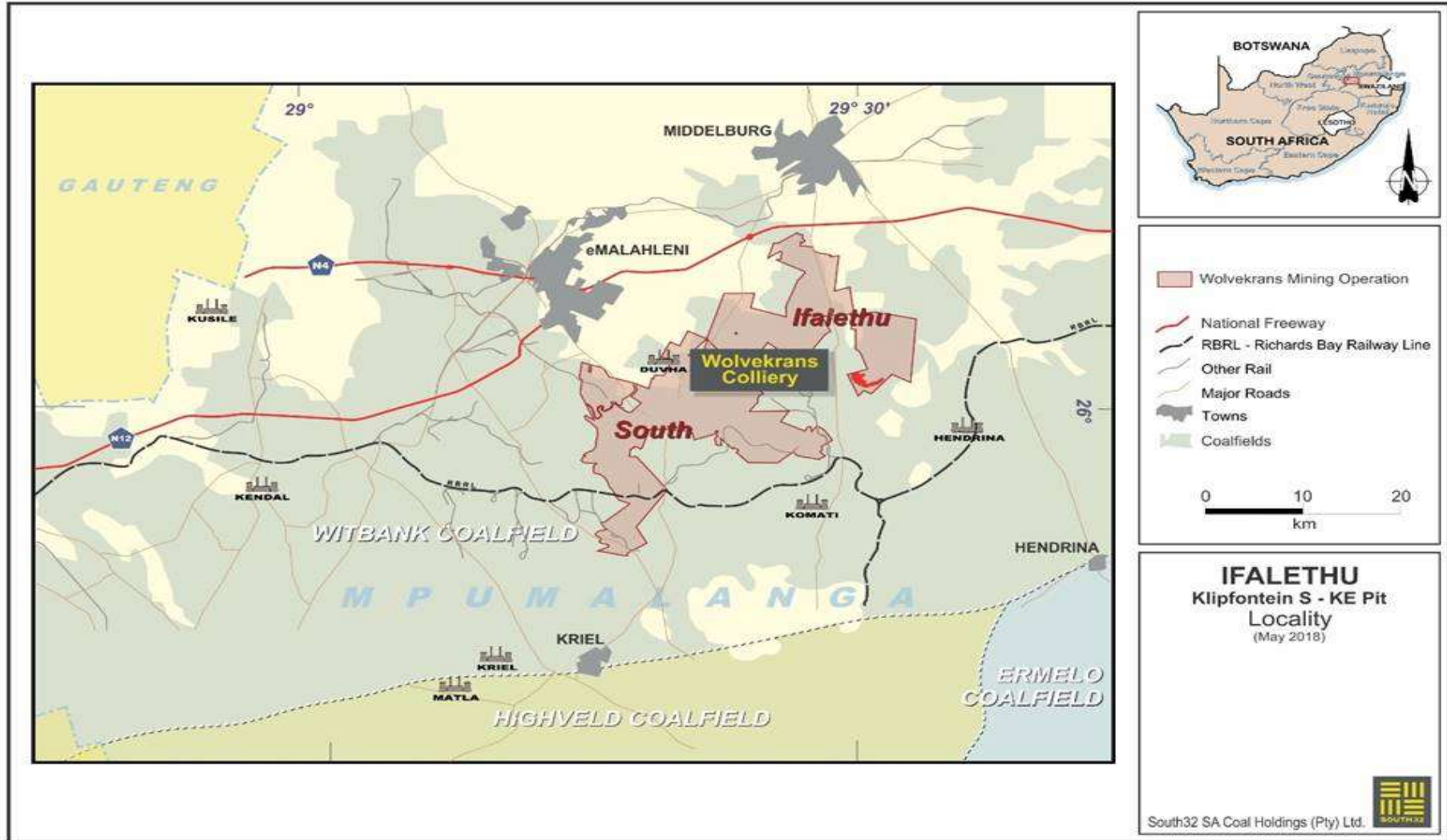


Figure 1: Mining expansion Plan Map of the South32 Colliery (Courtesy of South32 2018)

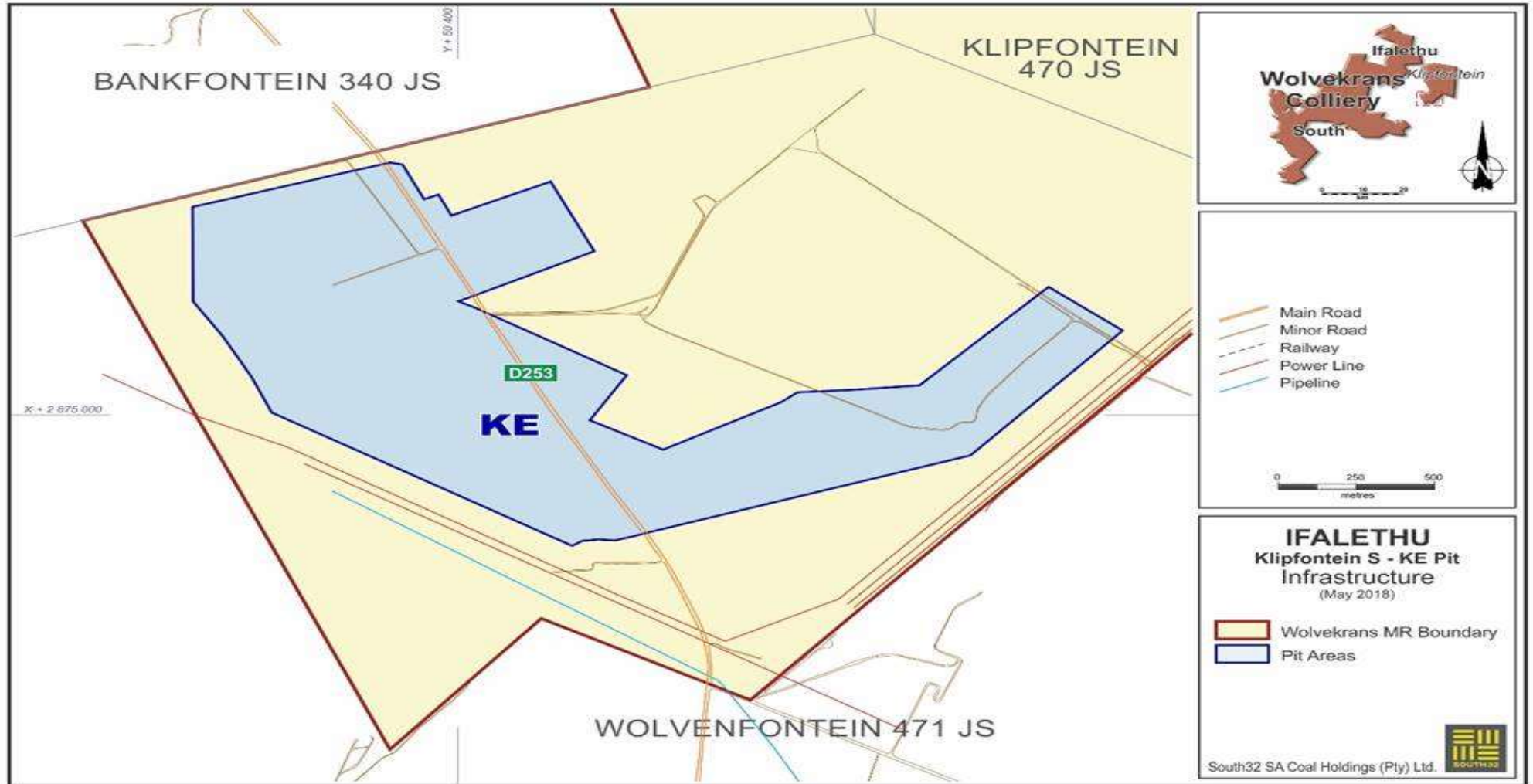


Figure 2: Mining expansion Plan Map of the South32 Colliery (Courtesy of South32 2018)

6. LEGISLATIVE AND INSTUTIONAL FRAMEWORK FOR PROTECTION OF GRAVES

Human remains and burials are commonly found close to archaeological sites; they may be found in abandoned and neglected burial sites, or occur sporadically anywhere as a result of prehistoric activity, victims of conflict or crime. It is often difficult to detect the presence of archaeological human remains on the landscape as these burials, in most cases, are not marked at the surface. Human remains are usually identified when they are exposed through erosion. In some instances, packed stones or rocks may indicate the presence of informal pre-colonial burials. If any human bones are found during the course of construction work, then they should be reported to an archaeologist and work in the immediate vicinity should cease until the appropriate actions have been carried out by the archaeologist. Where human remains are part of a burial they would need to be exhumed under a permit from either SAHRA (for pre-colonial burials as well as burials later than about AD 1500).

The present study was conducted in line with applicable legislations and regulations. The identification, evaluation and assessment of any cultural heritage site, artefact, physical cultural properties, burial grounds and graves, intangible heritage or find in the South African context is required and governed by the following legislation:

1. National Environmental Management Act (NEMA) Act 107 of 1998
2. National Heritage Resources Act (NHRA) Act 25 of 1999
3. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
4. Development Facilitation Act (DFA) Act 67 of 1995

This present study is equally covered under the following sections in each Act which refer directly to the identification, evaluation and assessment of cultural heritage resources.

1. 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) EMP (EMP) – Section (34)(b)
2. 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
3. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
 - a. Section 39(3)
4. 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.

The NHRA stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34 (1) of the NHRA states that “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...” The NEMA (No 107 of 1998) states that an integrated EMP should (23:2 (b)) “...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage”. In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure that a comprehensive legally compatible HIA report is compiled.

As highlighted in introductory sections of this report, the study specifically focuses on burial grounds and graves affected by the planned South32mining development. All burial grounds and individual graves are protected by law irrespective of their ages. Furthermore, there are regulations which control handling and management of human remains and grave goods. Specifically, in terms of the Section 36 (3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) no person may, without a permit issued by the relevant heritage resources authority:

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- (b) destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment, which assists in the detection or recovery of metals.

Therefore, in addition to the formal protection of culturally significance graves, all graves which are older than 60 years and which are not already located in a cemetery (such as ancestral graves in rural areas), are protected. Communities, which have an interest in the graves, must be consulted before any disturbance can take place. The graves of victims of conflict and those associated with the liberation struggle will have to be included, cared for, protected and memorials erected in their honour where practical. Regarding graves and burial grounds, the NHRA distinguishes between the following:

- Ancestral graves
- Royal graves and graves of traditional leaders
- Graves of victims of conflict

- Graves of individuals designated by the Minister by notice in the Gazette
- Historical graves and cemeteries
- Other human remains, which are not covered in terms of the Human Tissue Act, 1983 (Act No.65 of 1983).

All human remains are also protected under the Human Tissue Act, 1983 (Act No.65 of 1983). In addition, Municipal Ordinances provide for both burial grounds/cemetery and gravesites within certain localities.

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 and endorsement for exhumation and reinternment/reburial 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. The Local SAPS must also endorse any grave relocation in the area of their jurisdiction. 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-Burial Grounds and Graves Unit).

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 including Traditional Authorities is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

7. PREVIOUSLY UNIDENTIFIED BURIAL SITES/GRAVES

The proposed mining development is situated in an historic and contemporary cultural landscape with prehistoric, historic and contemporary human settlements and homestead remains. Given the history of human occupation of the affected area and forced removal, there is a possibility that previously unknown graves may be exposed during mining. Should burial sites be accidentally exposed, they must be reported to the nearest police station to ascertain whether or not there are a result of a crime and a heritage expert should be called in to establish whether the burial is covered by the NHRA or the Human Tissue Act. If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains must be kept in an institution where certain conditions are fulfilled in accordance with the Human Tissue Act. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities/land owner give their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

8. METHODOLOGY AND PROCEDURE FOR RELOCATION OF GRAVES

The methods in this study followed an HIA process that consisted of four steps:

Step I – Literature Review: The background information to the field survey leans greatly on the Heritage Impact Assessment Report and EMPr for the expansion Project.

Step II – Physical Survey: A physical survey was conducted on foot through the proposed mine expansion project area by qualified archaeologists in July and August of 2019. The surveys aimed at locating and documenting graves and burial ground sites falling within and adjacent to the proposed mining development footprint.

Step III – Consultation with key stakeholders and potential custodians especially those living in the vicinity of the affected graves.

Step IV – The final step involved the recording and documentation of relevant burial grounds and grave sites, as well as the assessment of sites in terms of the heritage impact assessment criteria and report writing, as well as mapping and constructive recommendations on rescue, salvage and relocation of the burial grounds and grave sites as well as protecting those sites that will not be directly destroyed by the development but are in close proximity of the development where there is a possibility that they may be affected from secondary impacts.

8.1. SIGNIFICANT RATING

Burial grounds are sacred and highly significant. All the burial grounds and gravesite covered by this report fall under the Generally Project category and they all retain a High and Medium Significance. Therefore, all the sites that are on the direct path of the development should be protected in situ or mitigated before destruction. These sites that are not on direct path of destruction but within close proximity of the development should be mapped, highly visibly marked and protected from any interference during the proposed development.

8.2. METHODOLOGY FOR IMPACT ASSESSMENT

8.2.1. Impact Rating

The impact of the planned mining is considered VERY HIGH from both a heritage and developmental perspectives because coal mining involves massive earth moving, stockpiling trenching and hauling. The affected burial sites are on the direct footprint of the proposed mining expansion.

The impacts to the sites are direct and permanent from a natural and/or socio-cultural perspective. The landscape will be permanently altered severely including drainage patterns, as such the burial sites will

not survive *in situ*. It is the considered opinion of the author that relocation of the burial sites is the most feasible mitigation option for these sites. The permanent destruction and loss the entire cultural landscape is viewed as severe and irreversible impact. The establishment of open cast mining infrastructure in the vicinity of the grave will close access to the burial sites and will render any visit to the sites as dangerous since they will be located in an active blasting area.

8.2.2. Certainty

Definite: More than 90% sure of a particular fact. Substantial supportive data exists to verify the assessment.

Probable: Over 70% certainty of a particular fact, or of the likelihood of an impact occurring.

Possible: Only over 40% certainty of a particular fact or of the likelihood of an impact occurring.

Unsure: Less than 40% certainty of a particular fact or likelihood of an impact occurring.

Mining development impacts are considered certain on any graves or burial ground on its direct path. The grave and burial grounds sites within 500m of the mining site fall within the definite impact region given the fact observation that the burials fall within the mining area and mining development will be associated with auxiliary developments such as trenches and access roads haul roads, servitude demarcation fence lines and boundaries as well as potential temporary construction camps and material storage sites during the proposed development.

8.2.3. Duration

Short Term: 0 to 5 years

Medium: 6 to 20 years

Long Term: more than 20 years

Permanent: site will be demolished or is already demolished

The Ifaletu Colliery's Wolfefontein 471JS Expansion development project falls under the Long Term and Permanent category. The grave and burial grounds on the direct path of the mining development will be permanently destroyed if relocation is not implemented prior to mining.

9. STAKEHOLDER AND SOCIAL CONSULTATIONS

Mafu's Funeral Home is the approved undertaker service provider and will be assisted and monitored by Sativatec Heritage specialists throughout the reburial process. Mafu's Funeral Home has started engagements with stakeholders such as local municipalities, SAPS and Department of Health as part of the preliminary preparations for the proposed relocation of the affected graves.

In accordance with the relevant legislation, Mafu's Funeral Home advertised in the Sowetan dated 30 July 2019, Middleburg Observer 2 August 2019, Witbank News 2 August 2019, eMalahleni FM and Ekwekwezi FM (See appendix A) and pasted on site notices as required by the heritage legislation. Potential custodians of the graves responded to the adverts and Mafu's Funeral Home in collaboration with Sativatec Heritage organised consultations meetings in Witbank, Middelburg and Denilton. The initial consultation meetings were conducted on the 26th of July 2019 at Mafu's Funeral Home, Middelburg and Denilton. The projected archaeologist presented to the potential custodians, the location of the affected graves, the nature of impacts and the relocation procedure. Minutes of the meetings and attendance registers of the meetings are attached. It was agreed during the meetings that the Heritage team will conduct a grave verification exercise with all the registered claimants. On the 6th of August the heritage team accompanied potential custodians to the affected site to verify identity of graves and custodians. Families who were present identified their family graves and were documented accordingly. It was disturbing to observe that some graves are no longer clearly visible and some families are no longer sure of the location of the family graves. An interesting case is one where one of the families found the grave of the grandfather mistakenly inscribed as that of *YVONNE* (see Plate). The potential of having more similar cases are very high at the site since most graves appear forgotten and neglected.

The affected families also requested a meeting with mine which took place on the 15th of August 2019 at the mine premises. The potential custodians raised many issues which the mine promised to look into. None the less the affected families were not satisfied and requested that another meeting be held with the mine in the presence of DMR, Human Rights Commission and Public Protector's office. As such the mine will convene a meeting where it is hoped that the affected families' concerns will be ironed out (the minutes of the meeting will be attached as soon as they are available to us). Our consultation and engagement with the affected families is still going on and a detailed report will be provided once the consultation process is concluded. Full social and ethnological consultation is going on in line with the requirements of the National Heritage Resources Act to ensure that the potential custodians are identified and consulted about the proposed relocation of the affected graves.

10. RESULTS OF THE FIELD SURVEY OF THE AFFECTED BURIAL SITE

The field survey identified 4 burial sites (A, B, C & D) of which two (A & C) are located on the direct footprint of the mining development. As highlighted in previous sections, burial grounds and gravesites are accorded the highest social significance threshold (see Appendix 3). They have both historical and social significance and are considered sacred. Wherever they exist they may not be tampered with or interfered with during any proposed development. It is important to note that the possibility of encountering human

remains during mining anywhere on the landscape is ever present. As such the mining teams must diligent and on the lookout for any accidental exposure of human burials.



Figure 3:: Map showing the identified graves in relation to the proposed mine site (Source: South32 2019).

10.1. BURIAL GOUND SITE A

The location of Burial Site A (Burial Ground 1) is located within (please refer to Figure 2 below) the current mining activity area. The site will be directly affected by the approved mining development. Burial Ground BSA is located at the following coordinates: 25° 59' 9.5" S and 29° 31' 10" E. Approximately 200 graves were recorded at this site. All the graves belong to former residents of the area who were forcefully removed in the 1990s. Most of them are now scattered in Middelburg, Witbank, Denilton, Hendrina and the surrounding farm. A few graves at the site are known to be for migrant labourers whose relatives can no longer be traced. There graves are all traditional graves most of which were marked by a single headstone and soil mounds. Most of these graves have been flattened by erosion and are no longer visible. A significant number of graves at the site are marked by cement plaster and inscribed headstones. However, most of the inscriptions are no longer clearly visible. Some graves were marked by soil mounds and steel name tags which have rusted. The majority of the graves are marked by oval shaped stone piles and a distinctive headstone. Generally, the burial ground is not maintained. This may suggest that the graves are forgotten. This may suggest that the custodians of the graves no longer access the site regularly and they may no longer be residing in the local area. It is the considered opinion of the author that this site will be permanently destroyed if it is not relocated, the impact of the approved mining development will be severe and permanent. As such relocation is the only feasible mitigation option given the fact that the entire landscape will be destroyed and access to the sites will be technically blocked, and it will be dangerous for custodians to visit their family graves in an active blasting area.



Plate 1: View of burial ground IBSA within the proposed development site.



Plate 2: View of burial marked by headstones and steel name tag. Note that this typical of most graves at the site and most of the inscriptions have faded



Plate 3: View of burial where a tree has overgrown.



Plate 4: View of newly inscribed name tags. Note that the danger is that mistaken identity of the grave as is the case with the Mlotshwa family.



Plate 5: View of grave marked by headstone and name tag.



Plate 6: View of families searching for their family graves. Note that the burial site has been concealed by thick grass cover



Plate 7: View of families searching for their graves at Burial Ground A within the approved mining right site.



Plate 8: Plate 2: View of Mlotshwa family identifying their graves at Burial Ground A.



Plate 9: View of Mlotshwa family at Burial Ground A.



Plate 10: View of headstone of Mlotshwa Family grave at Burial Ground A.



Plate 11: View of Mbamba family representative posing with one of their family graves at Burial Ground A.



Plate 12: View of a representative of the Mzobe family identifying 3 of his family graves at Gurial Ground A.



Plate 13: View of the Sibanyoni Family representatives standing in front of their family graves at Burial Ground A.



Plate 14: View of Sibanyoni Family representatives standing in front of the family mistakenly identified as belonging to Yvonne Motseri at Burial Ground A. Note that this is likely to be a common problem since most families do not remember the actual location of their family graves.



Plate 15: View of some of the unclaimed graves at Burial Ground A.



Plate 16: View of unclaimed graves at Burial Site A.



Plate 17: A closer view of the condition of many graves at the Burial A.



Plate 18: View of condition of some graves at Burial Site A. Note that the site was cleared to increase visibility of graves

10.2. BURIAL SITE C

The location of Burial Site C is located within (please refer to Figure 2 below) the current mining activity area. The site is on the direct path of the approved mining expansion. Burial Site C is located at the following coordinates: 25° 59' 9.5" S and 29° 31' 10." E. Approximately 60 graves were recorded at this site. All the graves belong to former residents of the area who were forcefully removed in the 1990s. Most of them are now scattered in Middelburg, Witbank, Denilton, Hendrina and the surrounding farms. There graves are all traditional graves belonging to most labour tenants. The graves are arranged in rows in one cluster. Similarly, most graves were marked by a single headstone and soil mounds which were flattened by erosion over years. A few graves at the site are marked by cement plaster and inscribed headstones but the inscriptions are fading. Some graves were marked by soil mounds and steel name tags which have since rusted. The majority of the graves are marked by oval shaped stone piles and a distinctive headstone. Generally, the burial ground is not maintained, and barrowing animals have also contributed to poor state of conservation at the site. This site is worse than Burial site Burial Site A. There is no sign of visitation by families as no recent ritual activities have been observed at the site. This may suggest that the custodians of the graves no longer access the site regularly and they may no longer be residing in the local area. During our preliminary site verification only one individual showed up to claim 3 graves at the site. This site is likely going to be problematic if families do not come forward to claim their family graves. The study team will utilize information from the lone claimant to locate potential custodians.

In terms of impact rating, it is the considered opinion of the author that this site will be permanently destroyed if it is not relocated, the impact of the approved mining development will be severe and permanent. As such relocation is the only feasible mitigation option given the fact that the entire landscape will be destroyed and access to the site will be technically blocked, and it will be dangerous for custodians to visit their family graves in an active blasting area.



Plate 19: View of Hadebe Family representative posing with one of his family grave at Burial Ground IBSB. Note that Mr Hadebe is the only who claimed three graves at this site



Plate 20: Showing Mr Hadebe showing some of his family graves without inscribed headstones at burial site C



Plate 21: View of the condition of graves at burial site C (Kwatokonya C)



Plate 22: View of the condition of graves at Burial Site C (Kwatokonya C). Note that most graves are concealed by grass and disturbed by barrowing animals

10.3. BURIAL SITE B AND D

The location of Burial Site B is located approximately 150m north east of Burial Site A. Burial Ground B is located at the following coordinates: 26 ° 01' 10.5" S and 29 ° 26' 25.1" E. Approximately 10 graves were recorded at this site. The graves were not assessed in detail since they are located outside the footprint of the mining expansion. All the graves belong to former residents of the area who were forcefully removed in the 1990s. Most of them are now scattered in Middelburg, Witbank, Denilton, Hendrina and the surrounding farms. Burial Site D was not assessed during this study.



Plate 23: View of Burial Site B and custodians posing with one of the graves.



Plate 24: View of the condition of graves at Burial Site B.



Plate 25: View of the condition of graves at Burial Site B



Plate 26: One of the custodians showing some infant graves concealed by grass cover at Burial Site B.

10. GENERAL APPLICABLE HERITAGE MANAGEMENT GUIDELINES

This study has confirmed that there are burial grounds located on the direct path of the railway line development. There are other sites within close proximity but not on the direct path of the development. In addition to mitigation measures recommended herein, it is advisable that an information section on cultural resources be included in the SHEQ training given to contractors involved in surface earthmoving activities. These sections must include basic information on:

- Graves.
- Archaeological finds; and
- Historical Structures.

This module must be tailor made to include all possible finds that could be expected in that area of mining.

In the event that human remains are uncovered, or previously unknown graves are discovered in the course of the proposed development a qualified archaeologist needs to be contacted and an evaluation of the finds made. If the remains are to be rescued, salvaged, exhumed and relocated, the relocation procedures as accepted by SAHRA need to be followed. This includes an extensive social consultation process.

11. SUMMARY RECOMMENDATIONS AND CONCLUDING REMARKS

This report is limited to survey and confirmation of location of burial grounds and gravesites in relation to the South 32 Mining expansion. No other physical cultural properties are discussed herein. The burial grounds and graves are classified as of high cultural significance. All sites should be mitigated prior to mining. Two procedures are recommended for the identified burial grounds and gravesites. All sites identified on the direct path of the approved mining development. Burial and gravesites in the secondary impact zone may not require any interference. Such sites should be marked and fenced off for *in situ* protection during and after mining.

The burials that are directly affected by the approved mining development or by its associated activities should be relocated.

- Burial Site A and C are on the direct footprint of the proposed mining right area. As such the burial sites cannot be preserved *in situ*. A grave relocation plan must be mooted in accordance with the dictates of the NHRA and the Human Tissue Act.
- Burial Site B and D are located outside the mining area; however, the mine must provide access to graves for families who may wish to visit the graves.
- It has already been observed that some families have graves in Burial Site A and B as such the mine should consider relocating some graves located even outside the mine footprint.
- The study observed that there are graves which are older than 60 years which falls under SAHRA and graves younger than 60 years which falls under the Department of Health, therefore two burial permits must be obtained before any relocation of the graves takes place.
- The proposed relocation of graves must be announced through local radio stations, national newspaper and on-site notices. Note that the notices must be in IsiNdebele and English and must use the known traditional name for the farm ie KwaTokonya.
- During consultation, the archaeologist and social facilitators must explain the grave relocation procedure adequately to the custodians to avoid future disputes regarding the relocation of the graves.
- Potential custodians must be requested to follow proper channels of communication as indicated in the adverts and on-site notices to avoid confusion and duplication of the consultation process.
- The whole team working on the grave relocation project must understand that the Heritage legislation and the Human Tissue Act do not prescribe compensation for graves, however, they provide for rituals which may vary with families and the status of the deceased.
- Since mining has already started in the vicinity of the burial sites, access with direction signs must be created for families who still want to perform rituals at the sites.

- The survey confirmed that the affected landscape has a long history of human occupation making it an active cultural landscape where there is a possibility of encountering previously unknown graves in the project area during subsurface construction work.
- To date approximately 20% of the custodians have been identified. Therefore, more notices must be provided to ensure a wider coverage of the areas where custodians may have relocated to.
- In the likely event that no custodians will come forward or will be identified, the graves will be treated as unknown graves and as such they fall within the jurisdiction of the National Heritage Resources Act (NHRA) 25 of 1999 under the assumption and observation that some of the graves have been confirmed to be older than 60 years.
- The proposed mining will certainly destroy all identified burial grounds. As such these graves should be relocated to safe sites. Before any interference with the burial grounds and graves, an urgent permit application should be lodged with South African Heritage Resources Agency (SAHRA) Burial Grounds and Graves Unit and Department of Health to secure the relevant permission for urgent intervention to rescue, salvage and relocate the burials to a safe and formal burial grounds in accordance with family wishes.
- The mining development will traverse through historic and active cultural landscape with historic and contemporary human settlements. This provides for a high probability of encountering chance finds and previously unknown graves during sub-surface construction work. Portions of the mine site is within historic homestead remains where there are high possibilities of encountering unmarked burials for infants that are traditionally buried in homesteads as opposed to being buried in cemeteries. As such, it is recommended that heritage-monitoring program be developed for implementation during the construction period.
 - i. All graves identified within the servitude are under threat one way or the other from the proposed railway servitude and associated developments. Such recorded graves directly affected should be rescued or salvaged by exhumation and relocated as soon as the necessary permits are obtained.
 - ii. An urgent Burial Ground and Graves heritage permit from SAHRA should be obtained to allow all affected graves that fall under the NHRA to be exhumed and relocated as stipulated by applicable laws and SAHRA regulations.
 - iii. All graves that do not fall under the NHRA will be treated and relocated within the Human Tissue Act of 1983 and the local municipality graves and human burial ordinances.
 - iv. Should any link be established between the burials and any community or families, consent should be secured from the custodians of the burials before the relocation exercise is conducted.

- v. The relocation exercise will be overseen by the accredited heritage professional, and a professional Undertaker from Mafu's Funeral Home will conduct the actual exhumation and re-interment.

Should additional previously unidentified graves be identified within the development path or buffer zones during construction works, the following measures must be taken.

- i. Mitigation of graves will require a fence around the cemetery with a buffer of at least 10 meters.
- ii. If graves are accidentally discovered during construction, activities must cease in the area and a qualified archaeologist be contacted to evaluate the find. To remove the remains a rescue permit must be applied for with SAHRA and the local South African Police Services must be notified of the find.

12. GRAVE RELOCATION PROCESS

Where the graves are to be relocated, a full grave relocation process that includes comprehensive social consultation must be followed.

The grave relocation process must include:

- i. 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;
- ii. On-Site notices indicating the intent of the relocation
- iii. Newspaper Notice indicating the intent of the relocation
- iv. A permit from the local authority;
- v. A permit from the Provincial Department of health;
- vi. 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;
- vii. An exhumation process that keeps the dignity of the human remains and cultural rights intact;
- viii. An exhumation process that will safeguard the legal implications towards the developing company;
- ix. The actual exhumation and reburial process will be done by Mafu's Funeral Home, reputable company that are well versed in relocations;
- x. The process must be conducted in such a manner as to safeguard the legal rights of the families as well as that of the developing company.

Given the long history of human occupation in the affected project area, it is highly likely that more previously unidentified graves may be discovered on the subsurface during the on-going construction work. Should previously unknown or unidentified graves be discovered during the construction phase,

they should be reported to heritage authorities to allow for their rescue before work proceeds on affected site. (See Appendixes 1 - 3 for additional applicable conditions, guidelines and procedures for handling human remains relocation programmes).

13. BIBLIOGRAPHY

Brickford, A. and Sullivan, S 1977. "Assessing the research significance of historic sites" in S Sullivan and s. Bowdler (eds), Site Surveys and Significance assessment in Australian Archaeology. Canberra: ANU.

Burke, H. and Smith C. 2004. The archaeologist's field handbook. Allen and Unwin. Australia.

Hammond-Tooke, D.1993. The roots of Black South Africa. Johannesburg: Jonathan Ball Publishers.

Human Tissue Act, 1983 (Act No.65 of 1983)

Huffman, TN. 2007. Handbook to the Iron Age: The archaeology of pre-colonial farming societies of Southern Africa. Pietermaritzburg: Univ. of KwaZulu-Natal Press.

National Heritage Resources Act (No. 25 of 1999).

National Heritage Resources Act (No 25 of 1999). 2002. Regulations.

SAHRA. 2002. General Introduction to surveys, impact assessments and management plans.

SAHRA. 2002. General guidelines to Archaeological Permitting Policy.

SAHRA. What to do when Graves are uncovered accidentally

14. APPENDIX 1: BURIAL RELOCATION PROJECT METHOD STATEMENT

1. DISCOVERY AND NOTIFICATION

If human burial remains are accidentally discovered during mining at South 32, the following guidelines apply:

- a) The finder will immediately cease any further activity at the site and report the site to the South32 ECO. The ECO will notify the heritage expert (Archaeologist) and authorities.

2. SITE PROTECTION AND IDENTIFICATION

- a) The ECO and the Archaeologist and the permitting authority shall take reasonable measures to protect the site from environmental factors and any form of unauthorized interference or disturbance.
- b) Based on the evidence reported at the scene, the Archaeologist will investigate the site and make a preliminary determination as to the nature of the remains.
- c) Existing site inventories, land use records, and community, and authorities, should be consulted as soon as possible about possible identification of the remains. Some examination of the site/remains may be required to determine its cultural affiliation and age, and whether or not the site is modern or historic.
- d) The Archaeologist shall apply and acquire the relevant exhumation and rescue Permit from SAHRA Graves and Burial Unit.

3. INVESTIGATION AND REPORTING

- a) The ECO will direct the Archaeologist to carry out an investigation under any required permits, in consultation with the affected custodians (if available) and other affected parties, to make an initial report citing, if possible, the cultural affiliation of the human remains.
- b) Within a reasonable time to be specified by the EO, and the affected parties, the Archaeologist shall deliver a written report and any notification not yet made to:
 - the ECO, and the affected custodians if appropriate.
 - the SAHRA;
 - the permitting authority of SAHRA Graves and Burials Unit
 - any other representative of the interred, if known.
- c) The written report shall attempt to identify:
 - the representative group of the interred;
 - the geographic boundaries of the site;
 - the grave offerings or other heritage resources that may be associated with the remains or the site.

d) The Archaeologist may, with the agreement of the proper authority and the representative of the interred, if known, remove all or part of the human remains for temporary custody where the remains may otherwise be at risk prior to their re-burial at a safe site.

3.1 REPORTING

a) If the site is determined to be a contemporary burial site, the appropriate representative will be contacted in writing to provide further direction on the disposition of the remains.

b) South32 contractors carrying out authorized activity where a historic or archaeological burial site is discovered can continue that activity with the consent of the EO, where appropriate. The activity must stay 150 meters away from the grave while further arrangements are made by the Archaeologist to rescue and relocate the remains to a safe cemetery.

d) The Archaeologist may publish notice of the discovery in a newspaper or other public notice seeking information on the remains and alerting members of the public about the impending relocation of the remains to a predetermined formal cemetery or burial ground.

4. SITE DISPOSITION AGREEMENT (MANAGEMENT PLAN)

4.1 When the site or remains are identified

a) The site shall not be disturbed and the EO, if on direct path of mine development work, shall initiate discussions towards entering into a site disposition agreement with the representative of the interred where applicable.

b) If the site is a historic or archaeological burial site, there must be joint approval of the site management plan on reburial as stated in the scope of services in terms of contract between South32 and Mafu.

c) Decisions regarding reburial, relocation or other disposition should be determined on a case-by-case basis in consultation with those concerned and in a timely manner.

Site disposition agreements shall determine such things as:

1. the interim care of the human remains;
2. the scope and extent of analysis to be performed on the human remains, if any;
3. the exact location of the place where the human remains are to remain or to be interred;
4. the style and manner of disinterment, if applicable;
5. the style and manner of reinterment, if applicable;
6. the time period in which disinterment and reinterment is to take place;
7. the procedures relating to, and the final disposition of any grave offerings discovered with the human remains and any additional analysis of them;
8. the provision for future maintenance of the cemetery or site where the human remains are to be located.

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9. access to the site and ways to prevent disturbance;
 10. any other issue agreed upon.

4.2 When no representative is identified, or no disposition is specified:

If disposition is not specified by a representative, or the remains are not claimed or no affiliation is established within a reasonable time, the Archaeologist shall with the necessary SAHRA permits and approvals provide for the following disposition:

- a) cover and leave the remains where they were found and have the site recorded as a burial site/heritage site, if on land suitable for a burial site; or
- b) have the remains disinterred and reinterred in the nearest appropriate cemetery; or
- c) remove the remains from the site for analysis and may have them reinterred in a recognized cemetery or;
- d) may act as the temporary repository of the remains until they are re-located for reburial at designated cemetery.

(Where the remains were found on Kusile Site but are not historic or archaeological remains, the Archaeologist may remove the remains in consultation with the South32 EO and the affected parties.)

5. ARBITRATION

- a) If no disposition or reburial agreement or management plan is reached within a reasonable time the matter may be referred to arbitration for settlement.

6. RECORDS

- a) A record of the site and a report of the discovery and disposition plan shall be kept by the Archaeologist, for future reference to protect the site or identify the re-burial site.
- b) Access to information about discovered sites will be addressed in any site management plan developed under these guidelines and will be protected under the Access to Information and Protection of Privacy legislations, and the NHRA.

7. BURIAL RELOCATION & REBURIAL

- Burial Relocation involves the identification of each grave and the manual excavation of the interred remains. Human remains, coffin features, and grave goods are exposed, their positions in the grave are carefully recorded, and maps and photographs of each grave are made following standard archaeological recovery techniques.
- Once excavation and examination are completed, the interred along with their grave goods are inventoried and carefully wrapped in acid-free tissue. Human remains are arranged anatomically,

and all materials are placed in specially designed containers, specified by the laws and regulations governed by the state where the re-interment location has been determined. The goal of re-interment is to restore as much of the original mortuary meaning as possible.

- Burial relocation is extremely culturally sensitive, and South32 and contractors/service provider staff understands that the utmost respect must be shown to the interred, as well as the descendant communities. We advocate respectful involvement of descendent communities in the relocation process, whenever possible, and have an excellent reputation for communicating with descendant groups.
- Mafu and Sativa Travel and Environmental Consultants Heritage Solutions has extensive experience conducting cemetery relocations for government agencies, other cultural resource firms, developers and private citizens in South Africa. We assure our clients as well as the descendent communities that the greatest amount of respect and care is taken when excavating and relocating these cemeteries.

8. RISKS

1. Legal Risks

South32 is exposed to a myriad of legal requirements on the local and national level when having to relocate burials. Burial relocation can infringe a number of human rights enshrined in the Constitution and legislations such the NHRA. If not carried out properly, grave relocation can impact the right to burial and dignity. Community opposition may result in protests and delays on development.

Mitigation

When human remains are identified during the development, all measures must be taken to ensure the law applicable regulations are enforced including mandatory public notifications.

2. Reputational risk

Relocation of human burials in particular also brings with it high risks for the South32's reputation which is exacerbated by the instantaneous spread of news across the world via the internet. Lack of proper planning and management may lead to negative consequences, which in turn may affect the South32's reputation.

Mitigation

Human remains identified in development contexts should be handled with utter most care to ensure the exhumation and relocation takes place in accordance with the law.

3. Operational risks

Legal action arising from the inadequate planning and implementation of burial relocation may result in South32's permission to construct the railway line being revoked via preliminary injunctions.

Operational risks may also arise from community protests directly. Cases of community opposition and protests, has previously disrupted work for days and weeks, involving, for example, the blockage of construction sites and vital roads and infrastructure. Construction may be delayed or disrupted.

Protests may be violent and impact on the health and safety of South 32 staff perpetuating work delays in construction and operations. South32 facilities, machinery, housing and other assets may be damaged and rendered unusable.

Mitigation

South32 site should have adequate security. All burial related matters should be held by the professional heritage team and reburial specialists. Human remains discovered during development should be reported to the ECO urgently and the Archaeologist notified in time to avoid any delays with the remains exposed on site. All exhumations and reburial exercises should be handled or schedule in a manner that does not require the remains to be held elsewhere temporarily.

4. Financial risks

Legal, reputational and operational risks may also lead other financial costs to the project. Moreover, costs may arise from legal action or disruptions in operations and work delays. Additional costs may be incurred when public protests require work to stop on site as a result of human remains discovery on site.

5. Human Remains Handling Risks

Exhumation, handling, transportation and reburial of human remains also pose a threat to public health if not handled to strict protocols. This risk is particularly highest in contemporary burials.

15. APPENDIX 2: GENERAL PRECAUTIONS

The following precautionary measures can help employers and employees remain safe and healthy whilst handling human remains. The transportation, handling and storage of human remains must also be carried out in a manner that preserves public safety and maintains the dignity of the deceased person.

PERSONAL PROTECTIVE EQUIPMENT

Hand Protection:

When handling potentially infectious materials, use appropriate barrier protection including latex and nitrile gloves (powder-free latex gloves with reduced latex protein content can help avoid reaction to latex allergies). These gloves can be worn under heavy-duty gloves which will, in turn, protect the wearer from cuts, puncture wounds, or other injuries that break the skin (caused by sharp environmental debris or bone fragments). A combination of a cut-proof inner layer glove and a latex or similar outer layer is preferable.

Foot Protection:

Footwear should similarly protect against sharp debris.

Hygiene:

- Wash your hands with soap and water or with an alcohol-based hand cleaner immediately after you remove your gloves.
- Give prompt care to any wounds sustained during work with human remains, including immediate cleansing with soap and clean water. Workers should also be vaccinated against hepatitis B and get a tetanus booster if indicated.
- Ensure disinfection of vehicles and equipment.

SUMMARY

- In general, personnel involved in the recovery and handling of human remains from a burial site can limit risk from potential exposure by following the guidelines below.
- Vinyl or Latex gloves should be worn.
- Masks and protective eyewear or face shields should be worn during procedures that are likely to generate fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes.
- Gowns or aprons should be worn during procedures that are likely to generate splashes of blood or other body fluids.
- Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.
- Ensure universal precautions for blood and body fluids.

- Ensure use of body bags.
- Ensure disinfection of vehicles and equipment.
- Bodies do not need to be disinfected before disposal (except in case of cholera).
- Vaccinate workers against hepatitis B.