

PHASE ONE HERITAGE IMPACT ASSESSMENT OF THE PROPOSED KWACELE QUARRY NEAR STANGER, KWADUKUZA MUNICIPALITY, KZN.



ACTIVE HERITAGE

For: Sand & Stone Resources Pty (Ltd)

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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at Rhodes University. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the then University of Natal. He assisted many post-graduate students with projects relating to the cultural heritage of South Africa. He also taught post-graduate courses on

qualitative research methodology to honours students at the Psychology Department, University of Natal. During this period he served on the editorial boards of the *South African Journal of Field Archaeology* and *Natalia*.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. During this period he also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukhahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18th month period.

Frans left SEF and started his own heritage consultancy called “Active Heritage cc” in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 1000 heritage conservation and management reports for various clients since the inception of “Active Heritage cc”. Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA's) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa, with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he is has done background research and conceptualization of the proposed

Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province. During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed World Heritage Site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. Frans has produced more than forty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. Frans has a wide experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwatya San Heritage Centre. Frans is also the co-founder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

Declaration of Consultants independence

Frans Prins is an independent consultant to Sand & Stone Resources Pty Ltd and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.



Frans Prins

TABLE OF CONTENTS

1	BACKGROUND INFORMATION ON THE PROJECT	2
2	BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA	3
3	BACKGROUND INFORMATION OF THE SURVEY	5
3.1	Methodology	5
3.1.1	<i>Guidance from Desktop Study (Assumptions and Limitations)</i>	5
3.2	Restrictions encountered during the survey	6
3.2.1	<i>Visibility</i>	6
3.2.2	<i>Disturbance</i>	6
3.3	Details of equipment used in the survey.....	7
4	DESCRIPTION OF SITES AND MATERIAL OBSERVED	7
4.1	Locational data	7
4.2	Description of the general area surveyed.....	7
4.2.1	<i>Background</i>	7
4.2.2	<i>Stakeholder Consultation</i>	8
4.2.3	<i>Desktop Paleontology Assessment</i>	8
5	STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)	8
5.1	Field Rating.....	8
6	RECOMMENDATIONS	10
7	MAPS AND FIGURES	11
8	REFERENCES	17

LIST OF TABLES

Table 1.	Background information.....	2
Table 2.	Field rating and recommended grading of sites (SAHRA 2005)	9
Table 3.	Evaluation and statement of significance.....	10

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 heritage survey of the proposed KwaCele Quarry, Kwadukuza Municipality, KZN identified no archaeological or heritage sites on the footprint. In addition, no heritage sites occur within 50m from the footprint. The greater area is also not part of any known cultural landscape. There is also no need for further paleontological studies. Attention, however, is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal and Amafa Research Institute Act (Act No. 5 of 2018), which requires that operations that expose archaeological or historical remains as well as graves and fossil material 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 Sand & Stone Resources (Pty) Ltd.
Type of development:	Quarry (mining permit)
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a Phase One 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 and Amafa Research Institute Act (Act No. 5 of 2018).

1.1. Details of the area surveyed:

The proposed mining site is located approximately 20km to the north west of Stanger (Kwa Dukuza) in the near vicinity of the R74 (Fig 1). The proposed quarry is situated in a formerly cleared area of an indigenous forest (Figs 7 - 10) that overlooks the Hlimbitwa River Valley. The proposed quarry will cover an area of 4.9 Ha. No permanent buildings will be erected on the footprint. There will only be a mobile office and access roads and proposed stock piling areas are indicated on Fig 5. The GPS coordinates for the proposed quarry are:

A S29.28640 E31.14410
 B S29.28640 E31.14490
 C S29.28570 E31.14560 .
 D S29.28500 E31.14570
 E S29.28340 E31.14540
 F S29.28370 E31.14380

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Stanger/KwaDuluza area, has been relatively well surveyed for archaeological heritage sites by the KwaZulu-Natal Museum, post-graduate students from the Universities of Cape Town and the Witwatersrand, and subsequently by private heritage consultants in the last few years.

The available evidence, as captured in the Amafa and the KwaZulu-Natal Museum heritage site inventories (therefore, high confidence in data), indicates that this area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. Eighty heritage sites occur within this area. These range from Early Stone Age, Middle Stone Age, and Later Stone Age to Early Iron Age, Middle and Later Iron Age sites as well as historical sites relating to the rise of the Zulu Kingdom and the subsequent colonial period. One notable Middle Stone Age site, i.e. Segubudu near Stanger have been excavated in the last two decades by the University of the Witwatersrand and yielded impressive archaeological stratigraphies relating to the period associated with the origins of anatomically modern people (Mitchell 2002). The highly reliable KZN Museum archaeological data base also indicates seven archaeological sites in the near vicinity of the project area. These include a midden with Middle Stone Age and later Stone Age material to the immediate south of the study area. Closer to the coast archaeologists have also identified two Early Iron Age sites, and four middens with Later Iron Age material

Around 1 700 years ago an initial wave of Early Iron Age People settled along the inland foot of the sand dunes on sandy but humus rich soils which would have ensured good crops for the first year or two after they had been cleared. These early agro-pastoralists produced a characteristic pottery style known as Matola. The Matola people also exploited the wild plant and animal resources of the forest and adjacent sea-shore. The communities seem to have been small groups of perhaps a few dozen slash-and burn cultivators, moving into a landscape sparsely inhabited by Later Stone Age San hunter-gatherers.

By 1 500 years ago another wave of Iron Age migrants entered the area. Their distinct ceramic pottery is classified to styles known as “Msuluzi” (AD 500-700), Ndongondwane (AD 700-800) and Ntshekane (AD 800-900). Three sites belonging to these periods occur along the banks of the Tugela River to the immediate north of the project area.

Some of these, such as the Ndondondwane and Mamba sites have been excavated by archaeologists (Maggs 1989:31; Huffman 2007:325-462). Some Early Iron Age potsherds have been located by archaeologists from the then Natal Museum closer to Maphumulo but these sites have not been thoroughly investigated.

The greater Kwa Dukuza area is also intimately associated with the rise of the Zulu Kingdom of Shaka in the early 1820's. It is at Stanger where King Shaka had his capital Kwa Dukuza and was murdered by his half-brothers Dingane and Mhlangane. The exact spot of Shaka's death is thought to be where an old mahogany tree now grows in the grounds of the Stanger/Kwa Dukuza municipal offices. The grain pit where Dingane is thought to have secretly buried Shaka is marked by a large rock in the King Shaka Memorial Garden in the town. The Zulu people erected this memorial during the reign of King Solomon (1913-1932). An interpretative centre has since been added. Also in Stanger near King Shaka's memorial, is a small river known as Shaka's spring. From here, unpolluted water was collected for the king's use. Nearby on the Imbozamo River, was Shaka's Bathing Pool and Shaka's Cave where he would rest after swimming. Not much further off is the famous Execution Cliff where executions were carried out on Shaka's orders (Derwent 2006). The battle of Ndondakusuka, which saw the rise of power of King Cetshwayo in 1856, took place near the mouth of the Tugela River to the immediate north east of the study area.

The colonial history of the area starts around 1820 when early English ivory traders established themselves at Port Natal (Durban). Dutch descendants (i.e. Voortrekkers) moved into the area soon after 1834 and established a short lived Boer republic called Natalia. However, by 1845 Natal became a British colony. In 1879 Zulu-land was invaded by British forces and the area annexed soon thereafter. Colonial buildings dating from the later 19th century as well as subsequent periods abound in the greater Durban and Stanger areas. These, like the archaeological resources of the province, are also protected by heritage legislation.

The area also played an important role in the more recent struggle-era history of the country. It was at Groutville, a small village to the south of Stanger/Kwa Dukuza that Chief Albert Luthuli, then president of the African National Congress and Nobel Peace Prize Winner, was based for most of his life (Derwent 2006). His home at Groutville has recently been declared a National Heritage Site and developed into a museum that was officially opened on 21 August 2004. The Luthuli Museum includes the original 1927

home of Chief Albert Luthuli that is situated on 3233 Nokukhanya Luthuli Street. A modern interpretive centre that houses temporary exhibits has also been added to the complex. Set in lovely landscaped gardens, the grounds provide the ideal setting in which to absorb the history and achievements of a man who became the first African to receive the Nobel Prize for Peace. Chief Albert Luthuli was a leader ahead of his time whose commitment to non-violence, non-racialism, democracy and human rights has left an enduring legacy.

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 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 Stanger area was consulted. Aerial photographs covering the area were scrutinised for potential Iron Age and historical period structures and grave sites. A ground survey, following standard and accepted archaeological procedures, was conducted on 5 November 2020. Particular attention was focused on the occurrence of potential grave sites and other heritage resources on the footprint.

3.1.1 *Guidance from Desktop Study (Assumptions and Limitations)*

- The desktop study indicates that Stone Age Sites of all periods and traditions may occur in the greater project area. However, Early Stone Age sites typically occurs close to permanent and prominent sources of water and permanent water sources do occur in the near vicinity of the footprint.
- Middle Stone Age tools have been found in dongas and erosion gullies at various locales in KwaZulu-Natal. These sites are usually out of context and of little research value. Middle Stone Age deposits also occur in deep cave deposits throughout KwaZulu-Natal. The well known Segubudu shelter, with a deep Middle Stone Age stratigraphy, is situated within 7 km from the project area. However, there are no shelters which may harbour archaeological deposits in the project area.

- Later Stone Age sites are prolific in the coastal areas of KwaZulu-Natal and also in the foothills of the Drakensberg to the west. However, there are no shelters or suitable rocky surfaces in the project area that may harbour Later Stone Age deposits.
- Early Iron Age Sites typically occur along major river valleys below the 700 m contour in KwaZulu-Natal. Known Early Iron Age sites do occur at Shakas Kraal approximately 10km to the south of the project area. The project area may harbour Early Iron Age sites.
- Later Iron Age sites may occur in the project area. These sites were occupied by the ancestors of the first Nguni-speaking agriculturists as well as their descendants who settled in KwaZulu-Natal. The greater Stanger area is also associated with the history of the Zulu-people and their founding ancestor Shaka Zulu. Known Later Iron Age Sites occur approximately 5km to the north of the project area.
- Historical buildings, structures and farmsteads do occur scattered throughout KwaZulu-Natal including Stanger. Historical sites associated with the history of King Shaka, for instance, occur at various locations in the greater Stanger area. The grave and associated memorial of King Shaka Zulu, a provincial heritage site, is situated 3km to the north of the project area.
- Sites associated with the recent 'Struggle Era' history of South Africa occurs to the south of the project area at KwaDukuza and Groutville. It is possible that sites relating to this period may occur in the near environs to the proposed development plot.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

No disturbance of any potential heritage features was noted.

3.3 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.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal

Closest Towns: Stanger and KwaDukuza

Municipality: KwaDukuza District Municipality

4.2 Description of the general area surveyed

4.2.1 Background

The proposed development plot is situated in a formerly cleared field surrounded by indigenous forests. The desktop survey indicates that there are no known heritage sites or features within 5km from this footprint. A series of historical-era sites are located adjacent to the R74 and in Stanger (KwaDukuza) to the east of the footprint (Fig). None of these are threatened by the proposed development and there is no need for any mitigation. The consultant could also not find evidence for any heritage sites, of all categories, on the footprint following standard archaeological ground survey methodology. Particular care was taken to identify graves but none were observed. The area is also not part of any known cultural landscape (Table 3).

These conclusions are echoed by Cultural Resource Development surveys in the greater Stanger area as reflected on the SAHRIS website. Various surveys took place in the greater Stanger area in the last ten years or so (for instance see, Anderson 2016, Prins 2017, G. A Environment 2018, Prins 2020). Again there is no indication that any heritage sites occur on the actual footprint. The nearest known heritage site to the footprint is situated more than 5 km away (Figs 2 & 3).

4.2.2 Stakeholder Consultation

The consultant spoke to local pedestrians encountered in the project area during the ground survey. None of them had any knowledge of graves or other heritage features in the project area.

4.2.3 Desktop Paleontology Assessment

The updated fossil sensitivity map, as provided by the SAHRIS website, shows that the project area has a low paleontological sensitivity (Fig 6). According to Amafa policy the implication is that no further paleontological studies will be required. However, a protocol of finds will be necessary.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

Not applicable as no heritage sites are known to occur on the footprint or within 50m from the proposed development plot (Table 2).

Table 2. 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

No heritage sites occur in the project area. The footprint has no heritage value (Table 3).

Table 3. Evaluation and statement of significance.

Significance criteria in terms of Section 3(3) of the NHRA		
	Significance	Rating
1.	Historic and political significance - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None.
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None.
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
6.	Scientific significance – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None.
7.	Social significance – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	None.
8.	Historic significance – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.	None.
9.	The significance of the site relating to the history of slavery in South Africa.	None.

6 RECOMMENDATIONS

As no heritage sites, features or graves occur in the project area there is no reason why the proposed quarry mining may not proceed from a general heritage perspective.

There is also no need for further paleontological studies. However, a protocol of finds will have to be implemented.

It is important to take note, however, that the KwaZulu-Natal Amafa & Research Institute Act. 2018 (Act No 5 of 2018) requires that any exposing of old graves and archaeological and historical residues should cease immediately pending an evaluation by the heritage authorities.

7 MAPS AND FIGURES

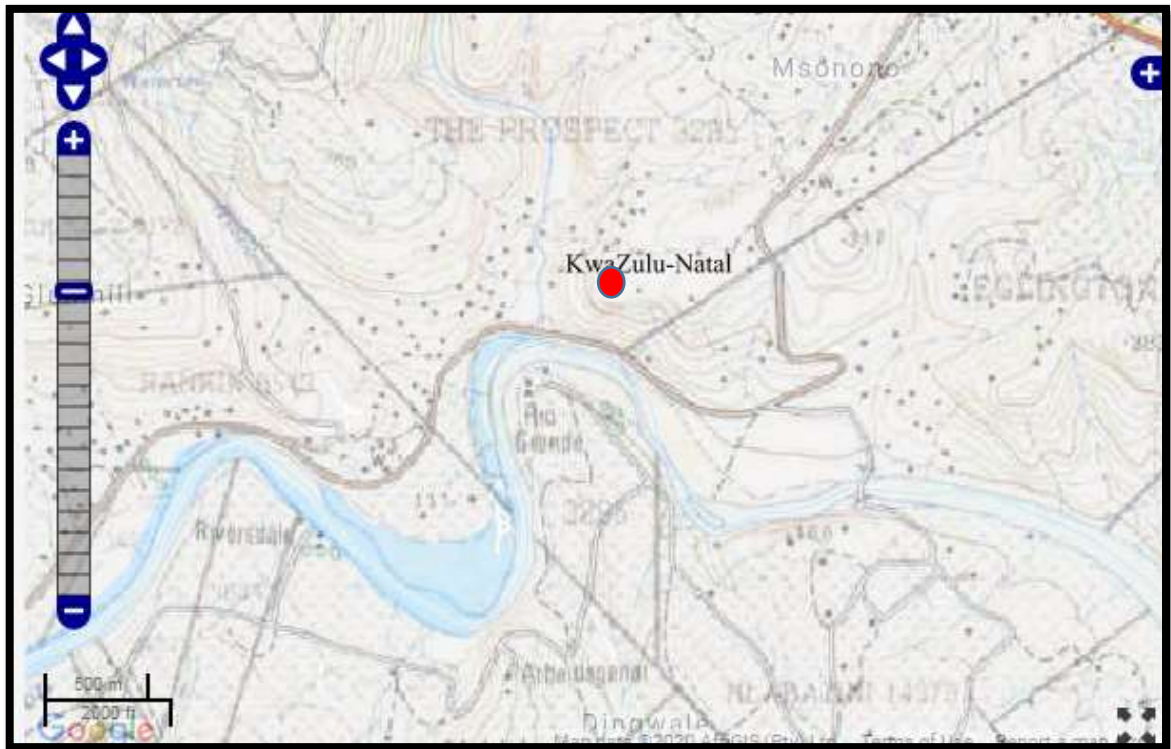


Figure 1. Topographical Map showing the location of the project area (red polygon) to the north west of Stanger, KwaDukuza District Municipality.



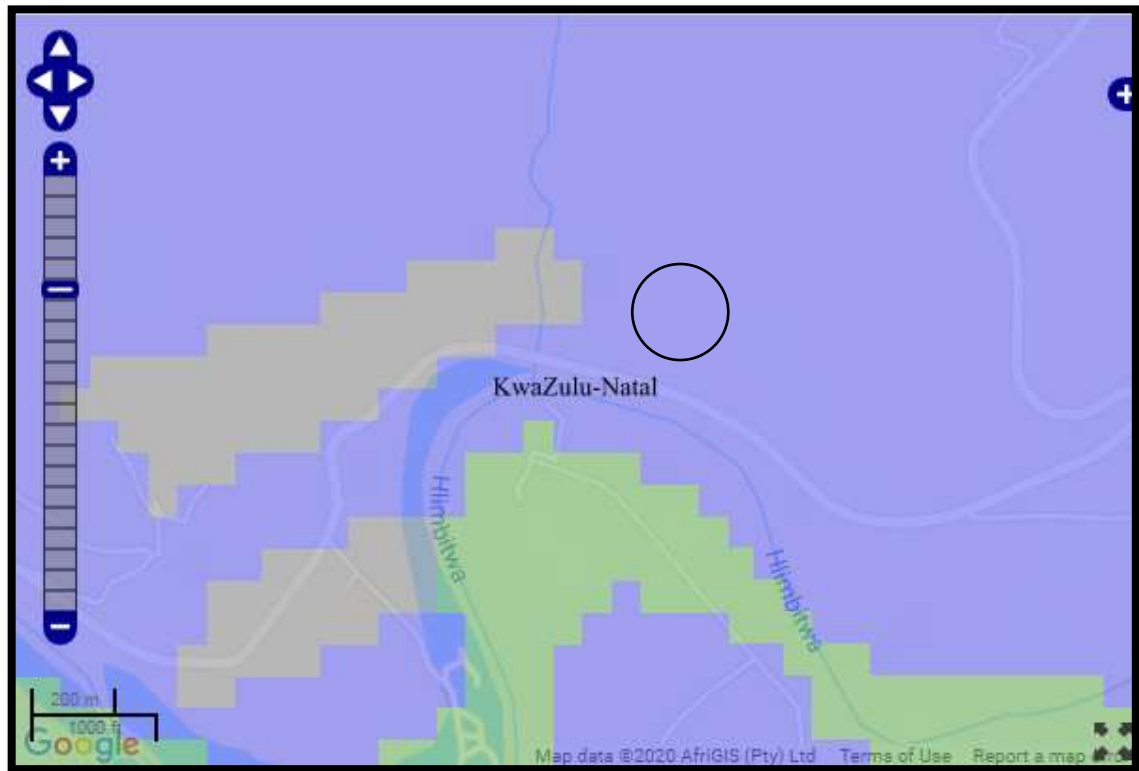
Figure 2. Map showing the location and context of the proposed KwaCele Quarry Site, KwaDukuza Local Municipality (Source: Sand & Stone Resources Pty Ltd).



Figure 3. Google Earth Imagery showing the location of known historical sites (yellow and white markers) relative to the project area. None of these known sites occur closer than 5km to the proposed quarry site.



Figure 4. Google Earth Imagery showing the location of known archaeological sites (purple markers) relative to the KwaCele quarry. None of these sites occur closer than 5km to the project area.



Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 6. Fossil Sensitivity Map of the project area: The project area is indicated by the black circle. The blue background colour indicate that the area has a low fossil sensitivity. No further studies will be required but a protocol of finds must be followed (Source: SAHRIS website).



Figure 7. The greater project area is characterised by indigenous forests and cleared areas that are often planted with sugar cane.



Figure 8. No heritage sites or features occur on the proposed quarry site. The Site is also not part of any known cultural landscape.



Figure 9. Anthropogenic influence is evident in large tracks of land that has been cleared. No heritage sites occur in these areas.



Figure 10. Sections of the indigenous forest that borders onto the proposed quarry site, have also been cleared in the recent past. No heritage sites or features has been located.

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