

**PROPOSED NEW MINING PERMIT FOR MATTIODA  
COLLABORA AGGREGATE BORROW PIT,  
PORTION 4, FARM LOWER OAKLANDS 16728,  
ILLEMBE DISTRICT MUNICIPALITY,  
KWAZULU-NATAL**

**Phase 1 Heritage Impact Assessment**

**3 May 2021**

**Updated August 2021**

**FOR: Afzelia Environmental Consultants  
Deshni Naicker/Thobakazi Zozo**

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## EXECUTIVE SUMMARY

Mattioda Collabora Heavy Equipment and Spares (Pty) Ltd is applying to mine aggregate from and around the existing borrow pit located on Portion 4 of the Farm Lower Oaklands No. 16728 situated in the KwaDukuza Local Municipality, KwaZulu-Natal. The new application forms part of the Applicant's strategy/approach to combat illegal mining whilst also initiating the process to recommence aggregate mining within the immediate vicinity to provide material for further road upgrades and maintenance.

The size of the proposed mining area has a footprint of 1.3 hectares (13000 m<sup>2</sup>) hence it triggers section 41 (1) (c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018, which refers to activities that may require a heritage impact assessment. The relevant sub-section refers to any development or other activity which will change the character of a site- (i) exceeding 5000 m<sup>2</sup>.

The borrow pit is located on Portion 4 of the Farm Lower Oaklands No 16728. The site is reached by a gravel road that comes off the R102 road between the towns of uMhlali and Shakaskraal.

An inspection of the borrow pit and new mining area was undertaken on 31 March 2021. Visibility within the borrow pit was good apart from pools of water but the new mining area was comprised of thick stands of sugar cane and invasive trees where visibility was limited.

During the inspection of the borrow pit and new mining area, no heritage sites were found. This is due to the very disturbed state of the area through mining of the site as well as intensive sugar cane farming all around the borrow pit.

Although the 1937 aerial image of the area is not that clear, it seems to indicate that the site of the borrow pit was already under cultivation by that date. The 1968 1:50000 map clearly indicates cultivation of the borrow pit site thereby indicating a site that has undergone many years of ongoing disturbance.

The South African fossil sensitivity map indicates that the existing borrow pit and new mining site falls in an area of insignificant fossil sensitivity. An area of insignificant fossil sensitivity means that no further palaeontological studies are required.

In terms of comment received from the Heritage Identification, Management & Protection Unit of the KwaZulu-Natal Amafa & Research Institute dated 21 June 2021, the applicant was required

to show evidence of sufficient public participation in terms of the proposed new mining application as well as identification (if any) of heritage resources in the development area and in the surrounding 50 metres. A follow-up site inspection was undertaken on 30 July 2021. The project area and an area of between 50m and 60m was inspected outside of the project area. No heritage resources were found during the follow-up inspection.

Those with whom the specialist consulted mentioned that for all the years they had worked in the area, the development area had been used for sugar cane farming and that there were no heritage sites in or in the surrounding area of the site.

No heritage resources or sites were found during the inspection of the borrow pit and its surroundings. This can be attributed to extensive disturbance created by mining activities and intensive sugar cane farming of the site. It is therefore recommended that the application for mining of the borrow pit be granted from a heritage perspective.

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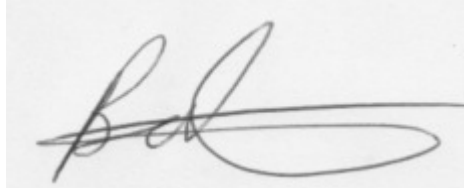
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I, **Jean Lois Beater**, act as an independent specialist for this project and I do not have any vested interest either business, financial, personal or other, in the proposed activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014.



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<b>AUTHOR DETAILS</b>
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<b>Name</b>	<b>Qualification</b>	<b>Professional Registration</b>
Jean Beater (JLB Consulting)	MA (Heritage Studies)	Member of Association of South African Professional Archaeologists (No. 349)
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## 1. INTRODUCTION

Mattioda Collabora Heavy Equipment and Spares (Pty) Ltd is applying to mine aggregate from and around the existing borrow pit located on Portion 4 of the Farm Lower Oaklands No. 16728 situated in the KwaDukuza Local Municipality of the iLembe District Municipality situated in the Province of KwaZulu-Natal.

The new application forms part of the Applicant's strategy/approach to combat illegal mining taking place at the existing borrow pit whilst also initiating the process to recommence aggregate mining within the immediate vicinity to provide material for further road upgrades and maintenance.

A Phase I Heritage Impact Assessment (HIA) was undertaken to assess whether any heritage resources will be impacted by the proposed new mining of the borrow pit.

## 2. LEGISLATIVE BACKGROUND

The proposed new mining area has a footprint of 1.3 hectares (13000 m<sup>2</sup>) hence it triggers section 41 (1) (c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that require an HIA. The relevant sub-section refers to: "*any development or other activity which will change the character of a site- (i) exceeding 5000 m<sup>2</sup>*".

The proposed extended mining of the borrow pit may also impact graves, structures, archaeological and palaeontological resources that are protected in terms of sections 37, 38, 39, and 40 of the KwaZulu-Natal Amafa and Research Institute Act, 2018.

Section 3 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) lists heritage resources as follows:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds, including—

- (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
  - (v) historical graves and cemeteries; and
  - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa; and
- (i) movable objects, including:
- (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects;
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and
  - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

### **3. LOCATION**

The borrow pit is located on Portion 4 of the Farm Lower Oaklands No 16728. The site is reached by a gravel road that comes off the R102 road between the towns of uMhlali and Shakaskraal. From the R102, the gravel road heads in a north-easterly direction for just less than 1km before reaching the existing borrow pit (see **Figure 1**).

A closer view of the proposed new mining area and existing borrow pit is depicted in **Figure 2**.



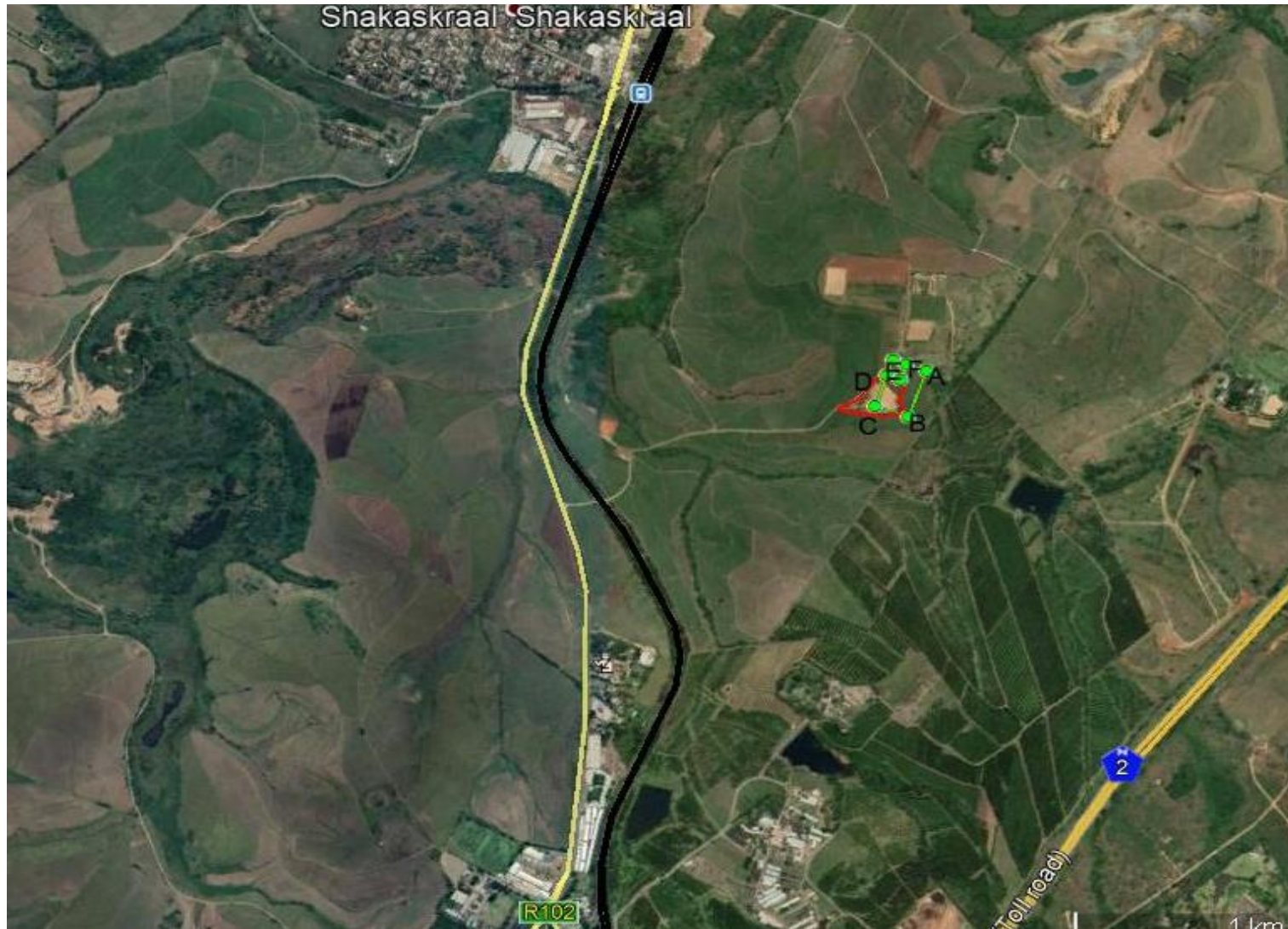


Figure 1: Surrounding area with existing borrow pit outlined in red and new application in green



Figure 2: Closer image of existing borrow pit and new application area (Afzelia 2021)



## 4. TERMS OF REFERENCE

Undertake a Phase 1 HIA in order to determine the possible existence of heritage resources, as listed above in Chapter 2, that could be impacted by the proposed mining of existing and new areas as indicated in the **Figure 2** above. Provide mitigation measures to limit or avoid the impact of the project on heritage resources (if any).

The heritage specialist will submit the HIA report to the provincial heritage resources authority, namely the KwaZulu-Natal Amafa and Research Institute (hereafter referred to as the Institute), for their consideration and comment.

## 5. METHODOLOGY

A survey of literature, including other heritage impact assessment (HIA) reports completed for the wider surrounding area, was undertaken in order to ascertain the history of the area and what type of heritage resources have or may be found in the area.

In addition, historical aerial images and topographic maps of the area were consulted that were retrieved from the Department of Rural Development and Land Reform's CDNGI Geospatial Portal ([www.cdngiportal.co.za](http://www.cdngiportal.co.za)).

An inspection of the new mining application area was undertaken on 31 March 2021. Visibility within the existing borrow pit was good apart from pools of water from recent rains but the area surrounding the borrow pit and where much of the new mining application is proposed is comprised of very thick stands of sugar cane with some invasive trees above and along the boundary of the existing borrow pit. Visibility was poor in these areas.

## 6. HISTORICAL BACKGROUND OF THE STUDY AREA

Previous archaeological surveys indicate that there are archaeological sites in the general area. These sites include types of Stone Age and Iron Age sites. The site (2931AC 003) closest to the borrow pit is located approximately 1km east of the borrow pit. The site consisted of surface scatter of concentrations of shells and slag that possibly indicated the presence of huts / structures. A number of fragmented mussels, scattered sizable lumps of slag, some pieces of iron ore, and Early Iron Age (Msuluzi phase) decorated and plain pottery was found on the site.

The earliest Iron Age sites in South Africa, including KwaZulu-Natal, relate to an eastern coastal and lowland cultural tradition with links as far north as the Kwale sites of eastern Kenya. This tradition has been named 'Matola', after a site in southern Mozambique. Most Early Iron Age villages in KwaZulu-Natal were often about eight hectares in size and probably containing a hundred or more people, and were found in the lower-lying and savannah areas, below an altitude of 1 000 metres. They were most common along the major rivers and in the coastal belt, where there was good, deep soil, year-round grazing, and timber for building and fuel (eThembeni 2008:13).

The beginning of the Late Iron Age marked a period of significant change in pottery styles and living patterns. Settlements were no longer located in river valleys, but were built on higher ground where homesteads would benefit from cooling breezes and good views for strategic purposes. Settlements appear to have been much smaller, implying that society underwent a change away from the large Early Iron Age villages and towards the individual family homesteads of the historic Nguni-speaking peoples (eThembeni 2008:14).

According to Bulpin (undated:254), one of the Zulu military barracks was located on the site of present day uMhlali. The site was called Mdumezulu ('where the heavens thunder'). It became a magisterial post in 1850 established by C.H. Williams who also became the first magistrate. The site was generally known as Williamstown but after Williams left it became known as uMhlali, named after the river flowing through the district which took its name from the wild orange trees growing on its banks.

## 7. RESULTS OF SITE INSPECTION

During the inspection of the new mining area and surrounds no heritage sites were found. This is due to the very disturbed state of the area through previous mining of the borrow pit as well as intensive sugar cane farming. Along the northern edge of the borrow pit, bedding (straw and wood chips) and manure is being deposited which presumably comes from the Oaklands equestrian farm located just north of the site.

Although the 1937 aerial image of the area is not that clear, it appears to indicate that the site of the borrow pit and surrounding area was already under cultivation by that date (**Figure 3**). The 1968 1:50000 map (2931AC) clearly indicates cultivation of the borrow pit site (**Figure 4**) indicating a site or area that has undergone many years of disturbance.



**Figure 3: 1937 image of area indicating approximate position of borrow pit with yellow circle**



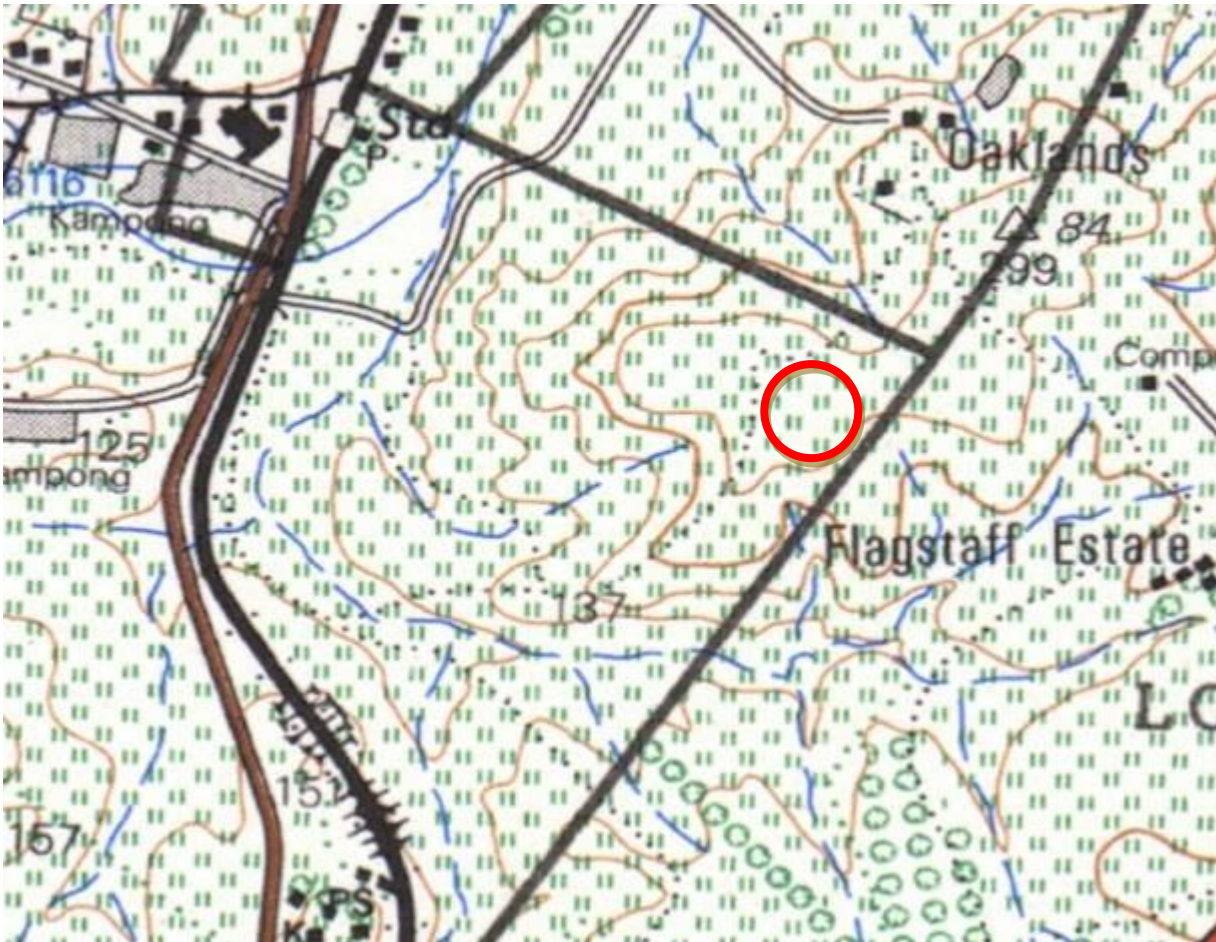


Figure 4: 1968 topographical map with red circle indicating approximate borrow pit site



Figure 5: Area of existing borrow pit to be mined





**Figure 6: View of intensive sugar cane farming in area of proposed mining**

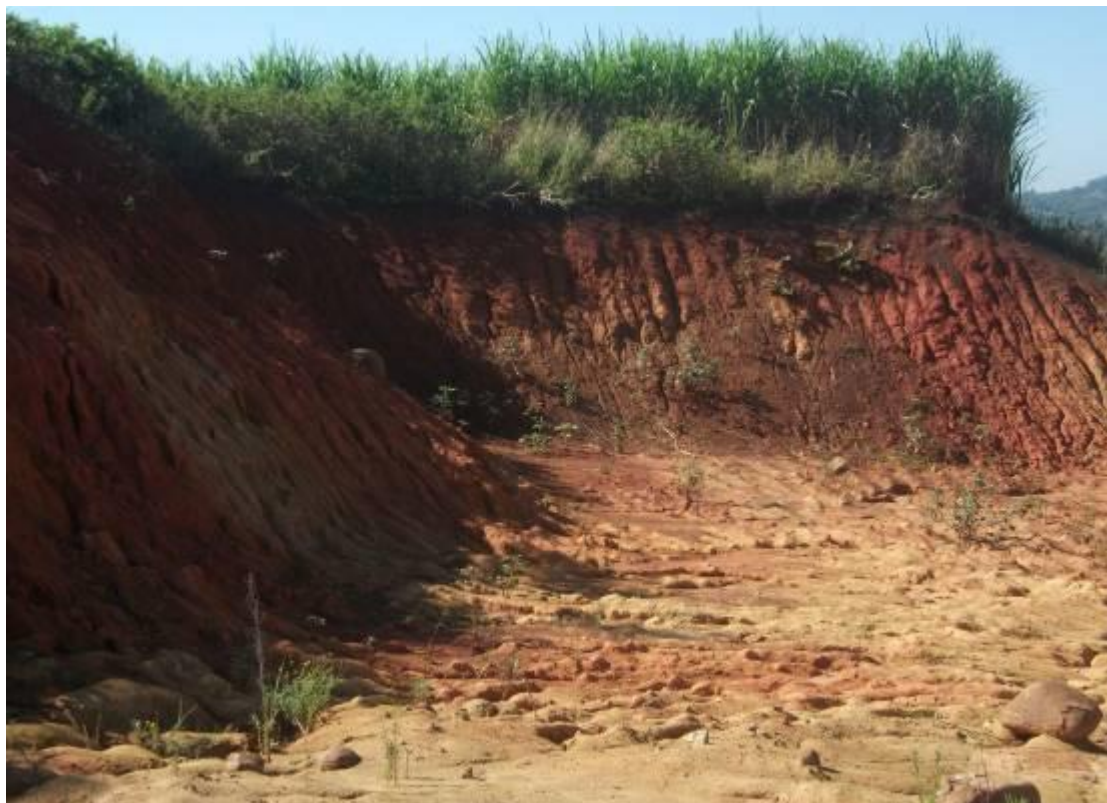


**Figure 7: Dense stands of sugar cane**





**Figure 8: View across existing quarry**



**Figure 9: View showing sugar cane fields on edge of borrow pit where mining is proposed**



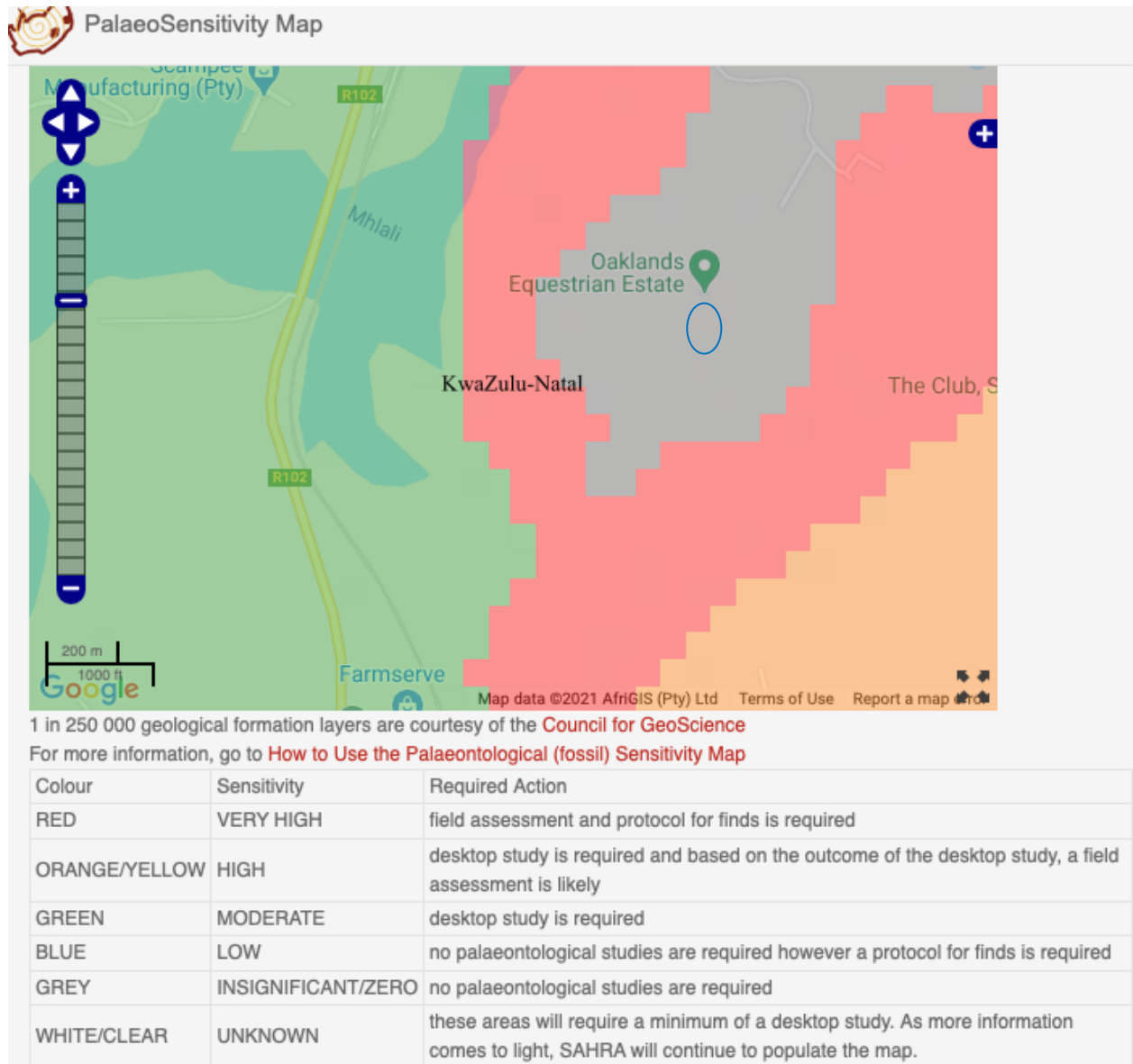


**Figure 10: View of area to be mined**



**Figure 11: Proposed mining area currently used for dumping of household rubbish**

The South African fossil sensitivity map indicates that the proposed new sand mining application area falls in an area of insignificant fossil sensitivity as indicated by the grey colour in **Figure 12**. An area of insignificant fossil sensitivity means that no further palaeontological studies are required.



**Figure 12: Fossil sensitivity map with project area indicated with blue outline**

## 7.1 Updated site inspection and public participation: KwaZulu-Natal Amafa & Research Institute comments

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In terms of comment received from the Heritage Identification, Management & Protection Unit of the KwaZulu-Natal Amafa & Research Institute dated 21 June 2021, the applicant was required to show evidence of sufficient public participation in terms of the proposed new mining application as well as identification (if any) of heritage resources in the development area and in the surrounding 50 metres.

A follow-up site inspection was undertaken on 30 July 2021. The project area and an area of between 50m and 60m was inspected outside of the project area. Relevant photographs can be found below (**Figures 13 – 24**). The inspection was undertaken on foot.

The also specialist spoke to a few people who live in the area regarding the presence of heritage resources in the development area. Mrs. Christina Duduzile has worked in the area for over 14 years and she told the heritage specialist that the proposed development area has always been under sugar cane cultivation and that there were no graves or other heritage sites in the development area nor in the surrounding area. Mr. Eric Ncumbese, who has worked in the area for 8 eight years, agreed with Mrs Duduzile's comments.

The specialist also spoke to Mr. Alberto Mattioda, the owner of the borrow pit and farm on which it is located. He mentioned that the farm was first used to grow cotton, then coffee and finally sugar cane. Prior to his purchase of the property, Illovo / CJ Smith had owned and farmed sugar cane on the property.

Much of the area, including the >50m surrounding area is used for sugar cane farming with the only northern section used by the Oaklands Equestrian Centre to keep their horses. No heritage resources were found during the follow-up inspection which can be attributed to the highly disturbed environment through farming activities, sand mining and a number of access roads.





Figure 13: Looking eastwards towards existing and proposed new mining area



Figure 14: View towards new application area





Figure 15: View >50m away from site and looking west



Figure 16: Surrounding view looking southwards towards new mining application area





Figure 17: Area used by equestrian centre looking northwards



Figure 18: View from northern edge of new application area southwards





**Figure 19: View in surrounding area looking west towards new application area**



**Figure 20: View looking north-eastwards in 50m surrounds**





Figure 21: Looking south along surroundings



Figure 22: View looking south west towards existing sand mining and new sand mining area



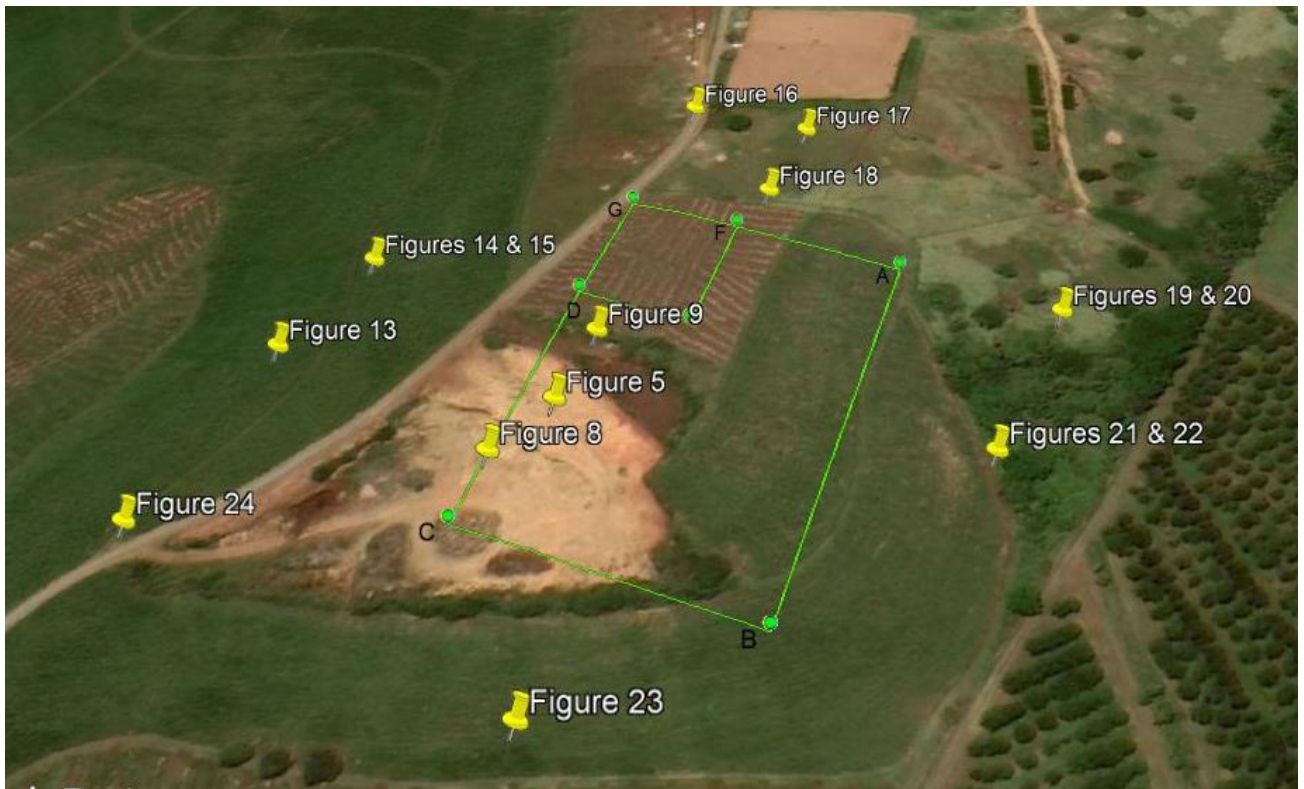


**Figure 23: View below and south of new application area**



**Figure 24: View of access road and existing quarry on right hand side of image**

The position of the photographs / figures shown above is depicted in the Google Earth image below.



**Figure 25: Position of figures**

The socio-economic impacts of the proposed application to mine aggregate will be:

- The combatting of illegal mining that is currently taking place at the borrow pit;
- Provision of material for road upgrades and road maintenance;
- Employment of local labour to mine the site which will have a knock-on effect in the increased spending power in the local economy; and
- A small decrease in area that is cultivated for sugar.

## **8. CONCLUSION**

No heritage resources or sites were found during the site inspection of the borrow pit and the area to be mined. Inspecting much of the area to be mined was limited due to dense stands of sugar cane. The ongoing disturbed nature of the mining area since the 1930s through the cultivation of sugar indicates that the possibility of finding intact heritage resources is extremely low.

A follow-up site inspection and public participation process was undertaken at the end of July 2021 in response to comment received from the KwaZulu-Natal Amafa & Research Institute dated 21 June 2021. Those with whom the specialist consulted mentioned that for all the years they had worked in the area, the development area had been used for sugar cane farming and

that there were no heritage sites in or in the surrounding area of the site. The specialist inspected the existing sand mining site as well as the area for the new mining application. In addition, an area of between 50m and 60m was inspected outside of the project area. No heritage sites were found during the follow-up inspection. It is therefore recommended that the application for a new mining permit be approved from a heritage perspective.

## **9. MITIGATION MEASURES**

- For any chance heritage finds (such as graves, etc.), all work must cease in the area affected and the Contractor must immediately inform the Project Manager in charge of the closure of the borrow pit. A heritage specialist must be called to site to inspect the finding/s. The provincial heritage resource agency, the Institute, must be informed about the finding/s.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Permits must be obtained from the Institute if heritage resources are to be removed, destroyed or altered.
- All heritage resources found in close proximity to the construction area must be protected by a 7 m buffer in which no construction can take place. The buffer material (danger tape, fencing, etc.) must be highly visible to construction crews.
- Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist.
- Should any recent remains be found on site that could potentially be human remains, the South African Police Service (SAPS) as well as the Institute must be informed. No SAPS official may remove remains until the correct permit/s have been obtained.



## 10. REFERENCES

Afzelia Environmental Consultants. 2021. *Background Information Document and Invitation to Comment. Proposed mining application to mine aggregate from the borrow pit situated on Portion 4 of the Farm Lower Oaklands No. 16728 situated in the KwaDukukaza Local Municipality of the Ilembe District Municipality situated in the Province of KwaZulu-Natal*

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Bulpin, T.V. Undated. *To the shores of Natal*. Cape Town: Citadel Press

eThembeni Cultural Heritage. 2008. *Heritage Impact Assessment of Ballito Crushers Quarry Expansion, Shakaskraal, KwaZulu-Natal, South Africa*