

APPENDIX 2

**REVIEW OF
CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT REPORT
For the
DEEP E OPEN CAST AREA, ZULULAND ANTRACITE COLLIERY
KWAZULU-NATAL PROVINCE**

Ref: 11-1186

8 May 2018

1. INTRODUCTION

The writer of this report was informed by the Environmental Assessment Practitioner (EAP), GCS Water & Environmental (Pty) Ltd, that specialist studies had been conducted for the Deep E open cast area in 2011/2012. JLB Consulting was requested by the EAP to undertake a review of the heritage impact assessment (HIA) report that was compiled by African Heritage Consultants cc on 6 June 2011.

2. LEGISLATIVE REQUIREMENTS

In terms of section 38 (3) of the National Heritage Resources Act (No. 25 of 1999), the following must be included in an HIA report:

- (a) The identification and mapping of all heritage resources in the area affected;
- (b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
- (c) an assessment of the impact of the development on such heritage resources;
- (d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- (e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- (f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- (g) plans for mitigation of any adverse effects during and after the completion of the proposed development.

3. REVIEW OF REPORT

Although the HIA report is a short document, it meets requirements (a), (e), (f) and, to a lesser extent, (g) in terms of the requirements listed above. In terms of requirement (b), an assessment of significance of heritage resources was not undertaken, it is assumed, because no heritage resources were found on site. The same reason is assumed for requirement (c) having not been undertaken as no heritage resources were identified that could be impacted by the proposed development. Requirement (d) is outstanding.

The 2011 HIA report found that there were no important cultural heritage resources or graves on the proposed development area. In terms of requirement (d), the impact on heritage resources

should be low in contrast to potential social and economic benefits of the open cast mine as long as local inhabitants of the area are employed during the construction and operation of the mine.

In terms of requirement (g) which refers to mitigation measures, those provided by the 2011 report are limited. Several additional mitigation measures are provided in section 5 of this addendum report.

4. DESKTOP REVIEW OF PROJECT SITE

The project site was examined using Google Earth images from 2011 until 2017 (see **Figures 1-3** below). As can be seen, not much has changed apart from a few more homesteads appearing on the north-western boundary road since 2011.



Figure 1: 2011 image



Figure 2: 2013 image



Figure 3: 2017 image

A Google Earth image with the plan of the proposed open cast mine overlaid on it is depicted in **Figure 4** below.

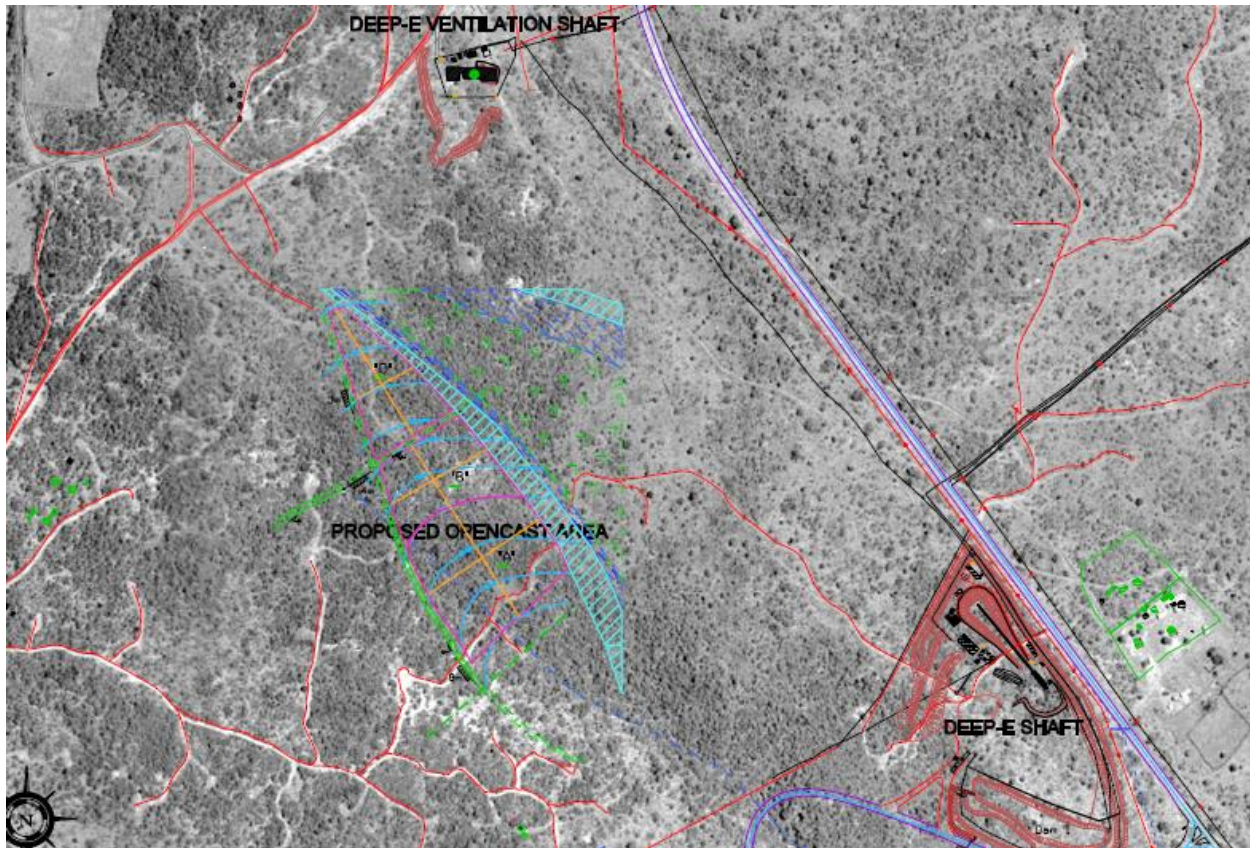
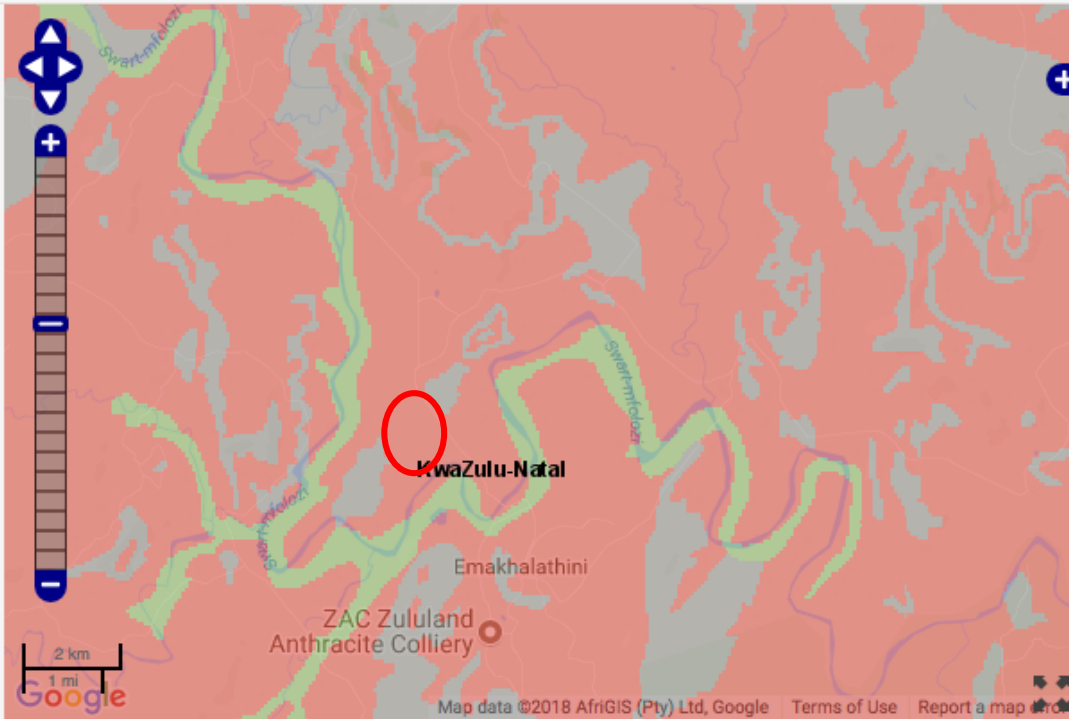


Figure 4: Plan of open cast mine

In terms of the South African fossil sensitivity map as depicted on **Figure 5** below, the project area falls in an area of very high fossil sensitivity. The requirement, as indicated in the Legend below, is that a field assessment is undertaken by a palaeontologist to determine the extent of the impact of the mine on sensitive fossil finds in the area. It is recommended therefore that because no palaeontological assessment was undertaken during the 2011 heritage assessment, at a minimum, a desktop palaeontological assessment is undertaken to determine the extent of impact on significant fossil material and whether a field assessment is required.



1 in 250 000 geological formation layers are courtesy of the Council for GeoScience
 For more information, go to [How to Use the Palaeontological \(fossil\) Sensitivity Map](#)

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

Figure 5: Fossil sensitivity of project area depicted with red oval

Paleontological material / fossils are protected by section 36 (1) of the KZNHA which states that no person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Amafa Council having been obtained on written application to the Council.

5. RECOMMENDATIONS AND CONCLUSION

As a result of the review of the 2011 HIA report, the following is recommended:

- A desktop palaeontological impact assessment PIA is undertaken of the site of the open cast mine to determine the presence of significant fossil finds and whether a field assessment is required. This desktop PIA must be undertaken prior to work commencing on the site.

- Mitigation measures:
 - Construction workers should be made aware of the types of heritage resources that could be found during the development of the open cast mine.
 - If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected by a cultural heritage practitioner. The relevant heritage resource agency (Amafa) 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 Amafa if heritage resources are to be removed, destroyed or altered.
 - Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist.