

**ANNUAL REPORT FOR THE TRONOX KZN SANDS
(PTY) LTD FAIRBREEZE MINE**

**FOR TRONOX KZN SANDS
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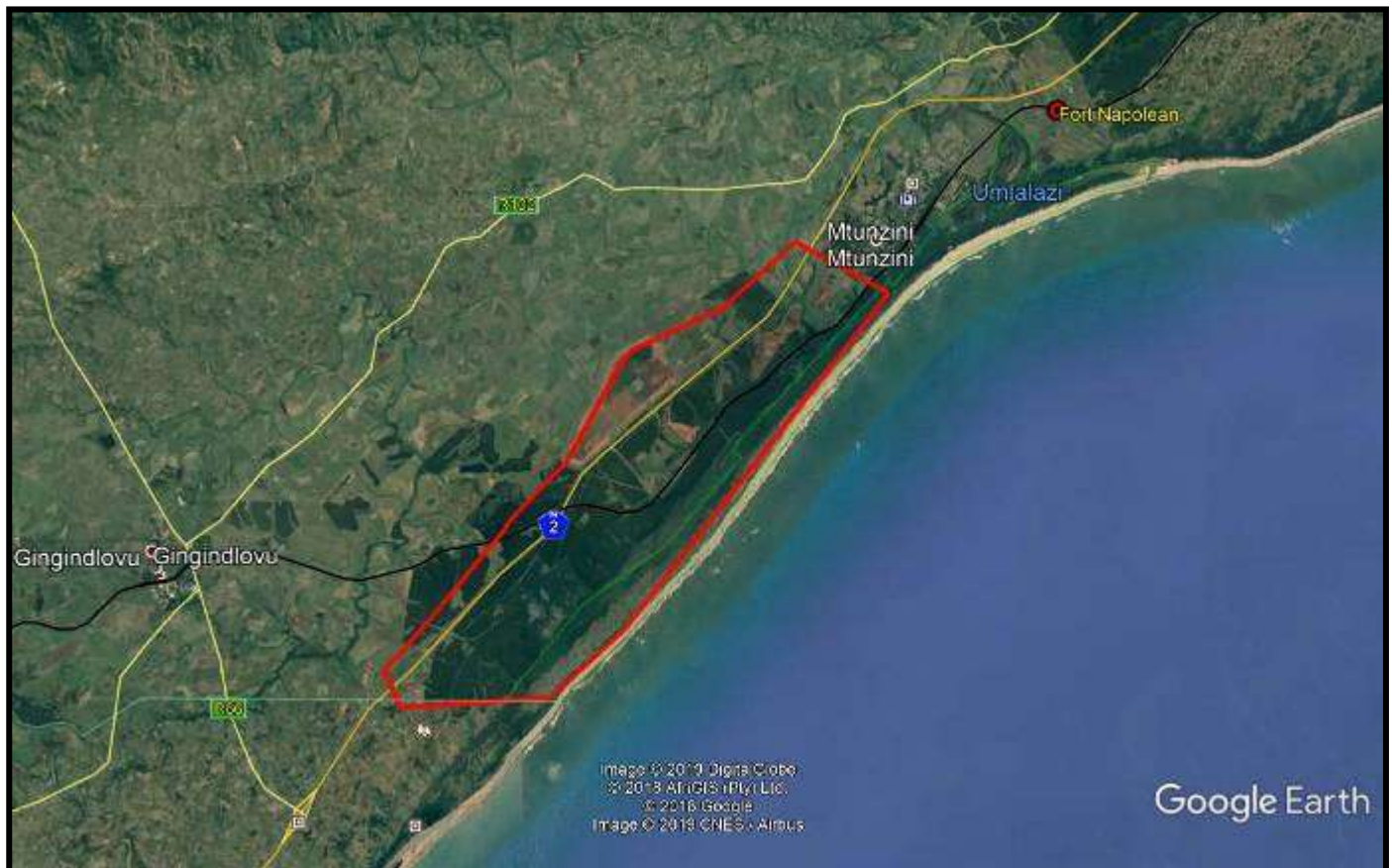


INTRODUCTION

Umlando was appointed by Tronox KZN Sands (Pty) Ltd to undertake the heritage management of the Fairbreeze mine during the operational phase. The mine is located south of Mtunzini and occurs in land previously used for sugar cane farming and afforestation (fig. 1).

The permit from Amafa KZN to undertake the destruction of archaeological sites has been received in February 2018 and is valid until December 2020. The permit to salvage and excavate was signed in March 2018 and is valid until December 2020. All permits to demolish buildings have expired and will require renewal.

FIG. 1: LOCATION OF THE FAIRBREEZE MINE



Part of the EMPR is that monthly surveys of the mine are undertaken regardless of progress of the mine. These surveys were undertaken in 2018 as well as monitoring of an excavation area.

RESULTS

No new sites were recorded during the year. Several isolated artefacts were noted at various parts of the mine. These artefacts are as follows:

- A single dolerite Middle Stone Age stone tool was noted. The tool was a utilised flake (fig. 2).
- There was an erosion gully northwards and downhill from the MSA flake. In this gully were three Early or Middle Stone Age stone tools (fig. 3)
- A single Middle Stone Age flake was noted at the Siyaya River Bridge
- Two pottery shards and a small upper grinding stone were noted (fig. 4). The shard is undecorated but probably dates to at least the Late Iron Age. The artefacts are in a secondary context and have no significance. The artefacts are part of the general scatter of artefacts along this hill that was previously afforested
- Pottery around the site LH5 (fig. 5)
- The area near Siyaya farm building was noted for monitoring and the area was opened in December (fig. 6). Only a recent (1960s – 1970s) rubbish dump was noted.

FIG. 2: MSA TOOL AT FAIRBREEZE MINE¹

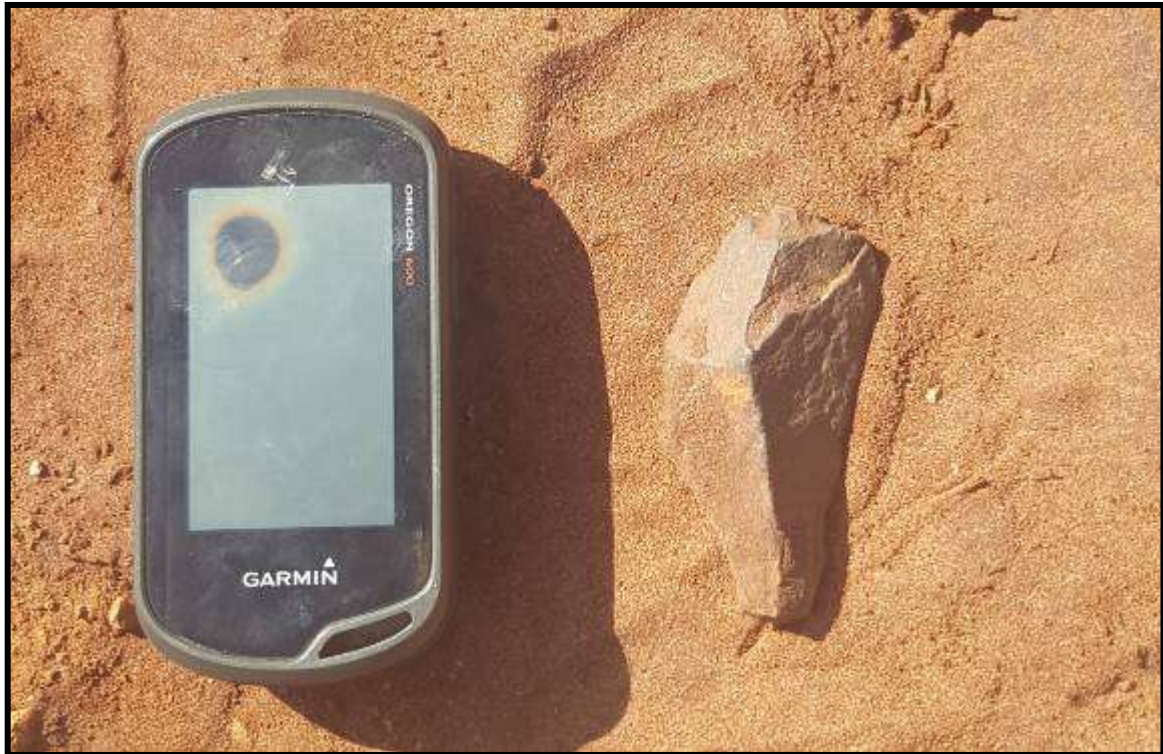


FIG. 3: EARLY OR MIDDLE STONE AGE TOOL AT FAIRBREEZE MINE



¹ GPS is 12cm long

FIG. 4: ARTEFACTS ON THE ROAD

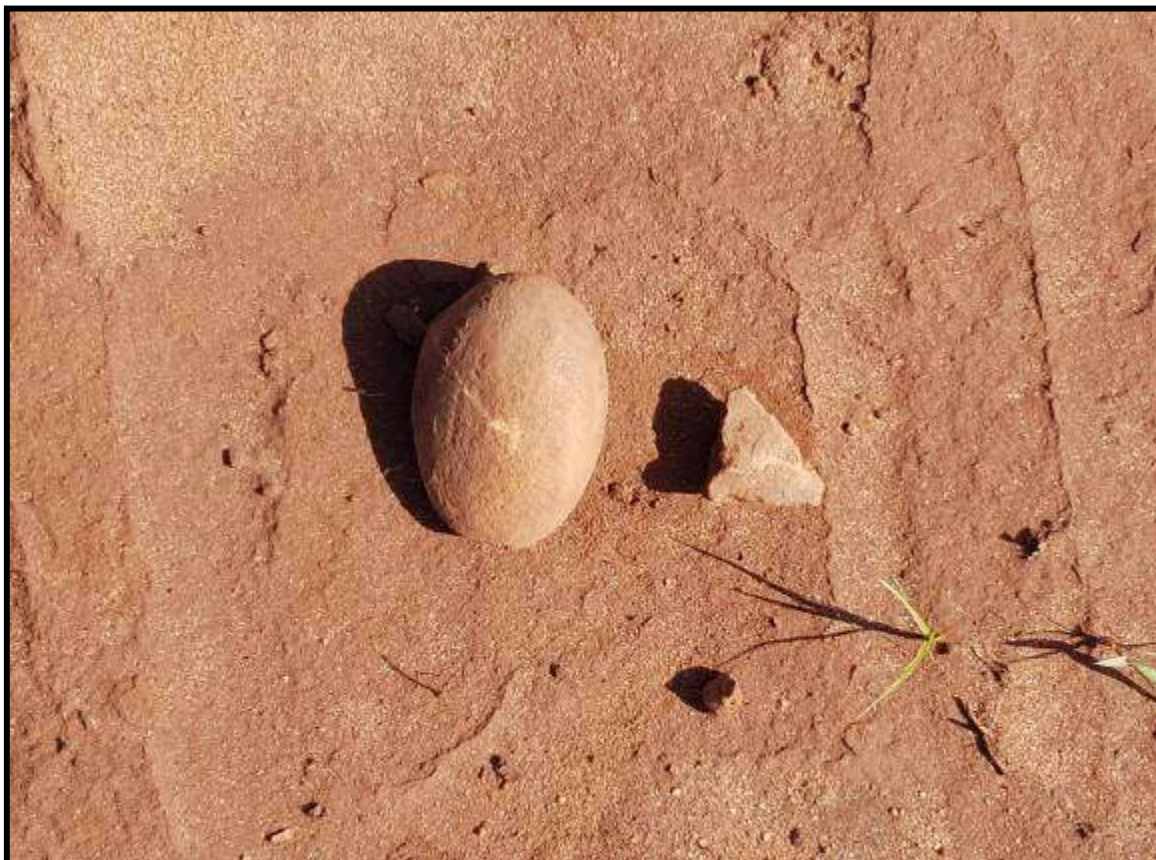


FIG. 5: POTTERY AT LH5



FIG.6: SITE CLEARANCE AT HT1



The monthly surveys did not yield any new sites or major finds. However the clearing of LH5 has highlighted a potential problem at the mine. While the maps indicating sensitive areas are available, they are not being consulted during the planning process. The point for LH5 has a 50m sensitivity radius and this should have alerted planning. To counter this I suggest that all heritage sites that require some form of mitigation are demarcated with painted poles and surveyed by the land surveyor. The paint must be unique for heritage sites and not conflict with other markers. The demarcation started in November and December and will continue in 2019. The demarcation of all heritage sites is apart of the RoD for the mine. This is important as staff change over time and new staff will not necessarily know about the location of sites. Demarcation is designed to be a permanent reminder of sites in the area. This can minimise accidental damage to sites, especially graves, that could result in mine closure if damaged.

The main office is situated at Highfields House. The house has been noted as having high significance and various restrictions have been placed on the estate. It has been noted by Tronox that some buildings pose a potential hazard and I was requested to enquire with Amafa KZN on possible remedial actions. I was informed by Amafa KZN Built environment that if any building on the estate needs to be removed, then Tronox must apply for a permit for that specific building whether it is for repair or demolition. The application will then be considered on merit. Tronox has the responsibility for the upkeep of all of the built features on the estate. Fig. 7 shows the water tower that is considered as a hazard.

Similarly, some buildings require permits to be destroyed, or parts of the building requires further mitigation. These were noted in the final HIA report. The locations of all heritage features have been submitted to the mine in Google Earth format. Figure 8 shows these sites according to significance:

- Red = very high significance
- Green = significant and needs mitigation, monitoring and possible additional permits
- Blue: low significance, might need monitoring

FIG. 7: WATER TOWER AT HIGHFIELDS HOUSE

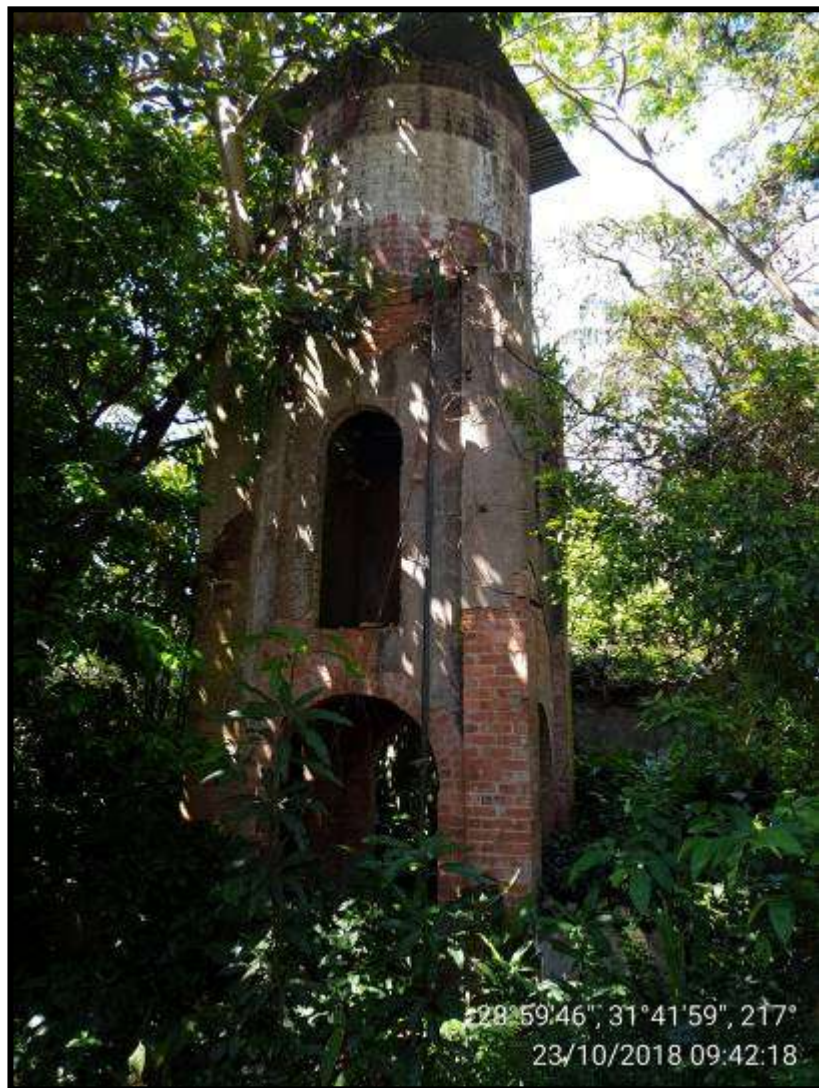


FIG. 8: LOCATION OF GRADED HERITAGE SITES IN THE MINING LEASE



CONCLUSION

The 2018 surveys at the Tronox KZN Sands Fairbreeze were undertaken on a monthly basis. The surveys noted isolated artefacts at various parts of the mine and these were noted.

The survey also demarcated one sensitive area that was going to be used as a topsand stockpile. The area was a 21st century settlement with possible graves, that would require monitoring when topsand was to be removed later. This would have the possibility of exposing unknown graves, and would have halted mining operations in that area for some time.

Monitoring activity has a specific purpose in that it aims to record sites and areas that were missed during the initial surveys due to dense vegetation or that they were subsurface features. The initial survey could not record all sites. Furthermore, as more information becomes available, the management areas might change. For Example, LH5 was noted on the historical maps only, but was until recently covered in afforestation. It was only when clearance began that artefacts were noted. It is for this reason that all sensitive areas should be physically demarcated at the mine as well as with mine planning. If graves are accidentally uncovered in non-demarcated areas, then it can be viewed as an accidental event. However, if graves are uncovered in sensitive areas, then it could be viewed as negligence and result in the mine (area) being closed. Monitoring is a way in which the mine operations can be informed when/if they near these sensitive areas.

The monthly surveys will continue in 2019.