

**The Archaeological Survey Of The Proposed Fairbreeze Extension C
Mine**

For Tigor South Africa Kwazulu-Natal (Pty) Ltd.

Date: 22 April 2004

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Executive Summary

An archaeological survey was undertaken for Ticor South Africa KwaZulu-Natal (Pty) Ltd. For the proposed Fairbreeze Extension C mine. One archaeological site of low significance was recorded. No further mitigation is required for the site. Several scatters of pottery sherds were also observed during the survey. The management plan for the proposed mining area is one of monitoring during the operational phase of the project. Monitoring should occur between surface clearance and actual mining.

Introduction

Ticor South Africa KwaZulu-Natal (Pty) Ltd. Approached Umlando: Archaeological Tourism and Resource Management to undertake the archaeological assessment of the proposed Fairbreeze Extension C mine. The area was considered to be archaeological sensitive, as archaeological sites have been recorded in the area previously. These recorded sites were part of the EIA undertaken by Ticor in 1995.

The current archaeological survey only recorded one archaeological site and several scatters of pottery in the affected area. Ticor South Africa KwaZulu-Natal (Pty) Ltd. will need to apply for a permit for the destruction of these sites.

Method

The affected area was covered by a foot survey in those area not covered by dense sugar cane. Those areas that were covered from dense sugar cane were omitted from the survey, as the archaeological visibility was very low. This does not imply that the area was not covered. The sugar cane contour paths were used to indicate the occurrence of archaeological material in these areas.

All sites are grouped according to low, medium and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts, especially pottery. Sites of medium significance have diagnostic artefacts and these are sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips and decorated sherds are sampled, while bone, stone and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated or extensively sampled. The sites that are extensively sampled have high research potential, yet poor preservation of features. I attempt to recover as many artefacts from these sites by means of systematic sampling, as opposed to sampling diagnostic artefacts only.

Significance is generally determined by several factors. However, in this survey, a wider definition of significance is adopted since the aim of the survey is to gather as much information as possible from every site. This strategy allows for an analysis of every site in some detail, without resorting to excavation.

Defining significance

Archaeological sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

- 1. State of preservation of:**
 - 1.1. Organic remains:
 - 1.1.1. Faunal
 - 1.1.2. Botanical
 - 1.2. Rock art
 - 1.3. Walling
 - 1.4. Presence of a cultural deposit
 - 1.5. Features:
 - 1.5.1. Ash Features
 - 1.5.2. Graves
 - 1.5.3. Middens
 - 1.5.4. Cattle byres
 - 1.5.5. Bedding and ash complexes
- 2. Spatial arrangements:**
 - 2.1. Internal housing arrangements
 - 2.2. Intra-site settlement patterns
 - 2.3. Inter-site settlement patterns

3. Features of the site:

- 3.1. Are there any unusual, unique or rare artefacts or images at the site?
- 3.2. Is it a type-site?
- 3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

- 6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

- 7.1. Does the site have the potential to be used as an educational instrument?
- 7.2. Does the site have the potential to become a tourist attraction?
- 7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. These test-pit excavations may require further excavations if the site is of significance. Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

Archaeological sites

One archaeological site was recorded during the survey: EXT1. EXT1 is classified as a site as it is a concentration of pottery sherds in a limited area. This area is ± 50 m in diameter. The pottery sherds are thin-walled and red, black or orange in colour. A few sherds have a brown burnish.

The pottery sherds suggest that the site belong to the later part of the Late Iron Age.

Significance: The site is of low archaeological significance.

Mitigation: No further mitigation is required.

Several small scatters of pottery were observed in the affected areas. These were not recorded as archaeological sites due to the low density of artefacts. I tend to record an Iron Age site only when it has more than five sherds from different pots. These scatters occur in areas that appear to have been previously afforested or disturbed by housing complexes. It is unlikely that any significant archaeological material would occur in these areas.

A general management plan should include a regular monitoring program. The monitoring should occur each time after surface clearance, but before mining activity. A similar monitoring program occurs at the Ticor Hillendale Plant. The aim of the monitoring would be to record and assess any potential sites/artefacts that were missed due to the dense vegetation or that were below the surface at the time of the survey.

The results of the survey are summarised in Table 1.

Table 1: Summary of archaeological sites and the impact

Project Stage	Extent	Duration	Probability	Significance	Status
1. Construction	Local	Permanent	Definite	Low	Neutral
2. Operational	Local	Permanent	Definite	Low	Neutral
3. Decommissioning	Local	N/A	Definite	Low	Neutral
4. After Closure	N/A	N/A	N/A	N/A	N/A

Conclusions

Ticor South Africa KwaZulu-Natal (Pty) Ltd. contracted Umlando to undertake and archaeological survey of the proposed Fairbreeze Extension C mining site. This is in accordance with the KwaZulu-Natal Heritage Act of 1997. Only one archaeological site was recorded and it is of low significance. No further mitigation is required for the site. Ticor would need to apply for a destruction permit for EXT1, and a general destruction permit for any unrecorded sites that may be recorded during the monitoring program. A general monitoring program should be set up to coincide between topsoil removal and the actual mining operation.

Appendix A

Archaeological site record form

Site category: Late Iron Age

For Recording Centre Use

National site number:

Accession number:

Accession institute:

Recorder's site number: EXT1

Site co-ordinates: X – 72236 Y - 3205030

Directions to site:

From Mtunzini turn right into Mimosa Road. At the Xaxaza Caravan park, turn right onto the small dirt road. Follow this road past the Eskom transmission line. Site is located on the left hand side, ± 200 m after the transmission line.

Site type (structure, shelter, open): Open

Merits conservation/salvage?: No

Threats: Yes **What threat?:** Ticor mining

Pictorial record: N/A

Where stored?: N/A

Recorder's details: Gavin/Louise Anderson. Umlando: Archaeological Tourism & Resource Management.

Date of recording: 25/03/2004

Site description:

Site consists of a scatter of pottery ± 50 m in diameter. The pottery is thin-walled and in red, orange or black colour. Some sherds are burnished.

Comments/References: N/A