

**The Archaeological Survey of the Elitheni mine,  
Indwe, Eastern Cape**

**For Savannah Environmental (Pty) Ltd**

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## **INTRODUCTION**

Savannah Environmental (Pty) Ltd contracted Umlando cc to undertake a heritage survey for the Elitheni coal mine near Indwe, Eastern Cape Province. The aim of the survey was to locate, assess, and provide management plans for sites that occur in the Phase 1 area of the Elitheni mine. I also recorded sites that were on the margins of the affected area.

Five sites were noted that occur in the general affected area. These are unlikely to be affected by the mining process directly, but may be affected by associated infrastructure. The assessments do not include community involvement in identifying sites.

The South African Heritage Resources Management Act of 1999 protects all heritage sites. A permit is required for the damage, destruction, or alteration of heritage sites. The South African Heritage Resources Agency (SAHRA) regulates this permit application.

## **METHOD**

The archaeological survey consisted of a foot survey of the entire affected area. The foot survey involves the physical surveying of the entire affected area. The survey results will define the significance of each recorded site, as well as the management plan. Management plans may include further excavations and/or destruction permits from the relevant authority.

### ***Defining significance***

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.

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:

- State of preservation of:
  - \* Organic remains:
    - Faunal
    - Botanical
  - \* Rock art
  - \* Walling
  - \* Presence of a cultural deposit
  - \* Features:
    - Ash Features
    - Graves
    - Middens
    - Cattle byres
    - Bedding and ash complexes
- Spatial arrangements:
  - \* Internal housing arrangements
  - \* Intra-site settlement patterns
  - \* Inter-site settlement patterns
- Features of the site:
  - \* Are there any unusual, unique or rare artefacts or images at the site?
  - \* Is it a type site?
  - \* Does the site have a very good example of a specific time period, feature, or artefact?
- Research:

- \* Providing information on current research projects
  - \* Salvaging information for potential future research projects
- Inter- and intra-site variability
  - \* Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between vary features and artefacts?
  - \* Can this particular site yield information about a community's social relationships within itself, or between other communities.
- Archaeological Experience:
  - \* 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.
- Educational:
  - \* Does the site have the potential to be used as an educational instrument?
  - \* Does the site have the potential to become a tourist attraction?
  - \* 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 fulfil 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.

I suggest that a heritage awareness program is started with the company whereby they are to observe archaeological sites, features, and artefacts. A chain of command could be setup whereby ground staff may report to the (various managers), who then report to the main environmental officer, who would then report to the archaeologist. A decision regarding mitigation can thus be made over the phone or email.

The findings and/or general awareness should be maximised in terms of in-house publications and/or external mining magazines.

## **RESULTS**

Five sites were recorded in the general area, and may be indirectly affected by the mine. Figure 1 illustrates the location of Phase 1. Each site has a prefix of IND (for Indwe), followed by the number. Figure 2 maps the general location of these sites. Table 1 summarises these sites and their assessment. The co-ordinates for each site are given in a separate worksheet, and is considered to be sensitive and not for general disbursement.

Sites that occur on the boundaries are included as they may be affected by access roads (e.g. IND3).

The depth of the soil on the top of the outcrop tends to be very thin in most places. There is little to no archaeological deposit.

### ***IND1***

IND1 is located on the boundary of the phase 1, at the edge of the hill. It is also located above St Michael Mission. The site consists of three stone walled features. The main feature is a rectangular kraal ~20mx 40m in size (fig. 3). The walls have collapsed (or have been removed) and now consist of a low base. The base consists of two rows of large boulders with smaller rubble infill (fig. 4). The kraal has two entrances that face northeast. To the southwest of the kraal are two circular stone walled features that are ~5m in diameter. There are a few cleared areas to the northwest of the main kraal. These may be living areas, or some other activity area.

Significance: The site is of low significance as it appears to only contain the three features and a possible living area.

Mitigation: If the site will be affected, then it should be properly mapped.

### ***IND2***

IND2 is located just outside of the boundary. It is located between the road to St Michaels Mission and the boundary line. The site consists of several stone features and possible graves. The main feature is a collapsed house (fig. 5), with smaller kraals behind it. Two small rectangular features occur to the side of the house (fig.

Figure 1: Location of Phase 1

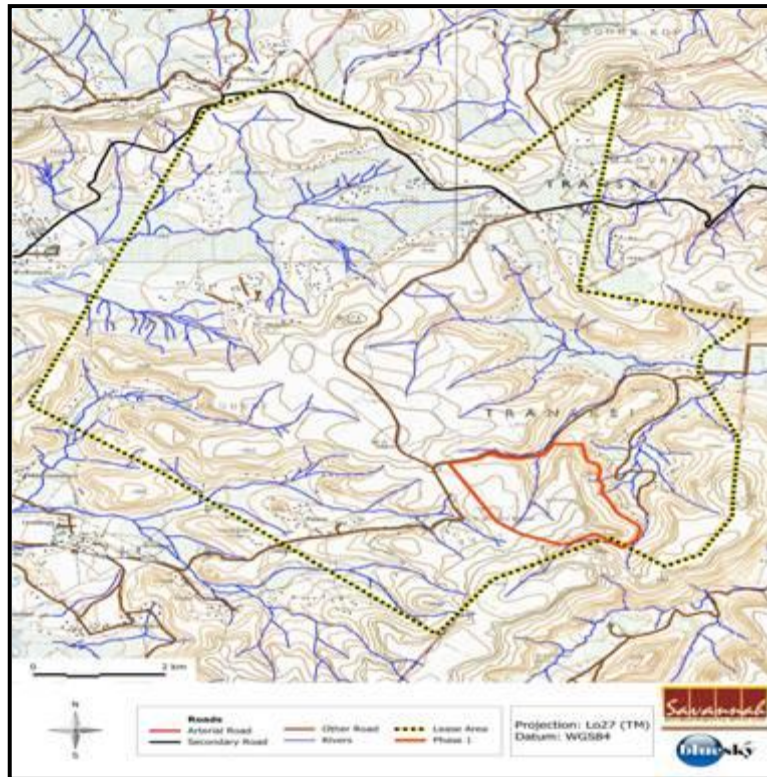


Figure 2: Location of heritage sites





Figure 3: General area of IND3



Figure 4: Collapsed walling from house





Figure 5: Small Rectangular features



Figure 7: IND3 General



Table 1: Summary of sites

Site name	Significance	Direct or indirect affect	Requires mitigation if affected?
IND1	Low	Indirect	Yes
IND2	Medium-high	Indirect	Yes
IND3	Medium-high	Indirect	Yes
IND4	Low	Indirect	Yes
IND5	Low	Direct and Indirect	no

6). I have noted other sites where houses have been collapsed intentionally over a human burial. This would need to be confirmed. Behind the kraals is a terraced area.

Significance: The site is of medium-high significance.

Mitigation: The site appears to be recent (that is, within the last 60 years) and community involvement should occur if it will be affected. This involvement is a priority if access roads, etc. occur nearby the site. I tend to place a 5m buffer zone around sensitive sites.

### **IND3**

IND3 is located a few meters from IND2 and may be related. It consists of a rectangular kraal, foundations of a house (made from brick and cement), and at least two (older) circular features (fig. 7).

The access road currently goes through the site, and has thus affected the site. The impact is negligible.

Significance: The site may be of medium significance for the local community.

Mitigation: The site appears to be recent (that is, within the last 60 years) and community involvement should occur if it will be affected. This involvement is a priority if access roads, etc. occur nearby the site. I tend to place a 5m buffer zone around sensitive sites.

#### ***IND4***

IND4 is outside of the boundary; however, it may be indirectly affected. The site is a bridge that formed part of the old road (fig. 8). The date of the bridge will need to be established since if it is older than 60 years then it will be protected. The Department of Transport will also need to be informed, to ensure that this bridge is on their list of bridges and that to confirm that it is not currently used.

Significance: The site is of low significance.

Mitigation: If the bridge will be affected then it needs to be dated and permission from the Department of Transport will need to be obtained.

#### ***IND5***

IND5 consists of a scatter of stone tools along the ridge where mining will occur. The tools consist of Middle (MSA) and Late (LSA) Stone Age flakes and cores. The MSA flakes consist of three patinated flakes. The LSA tools consist of blades, side-end scraper, (utilised) flakes, and three cores. I observed similar tools above on the plateau. The stone tools are probably washed down from the above plateau.

Significance: The site is of low significance.

Mitigation: No further mitigation should be required as the tools are standard examples of the MSA and LSA. A permit for the destruction, alteration of this site may be required from SAHRA.

#### **CONCLUSION**

Fives sites were identified during the course of the survey. The mine will not directly affect these sites; however, some may be indirectly affected. The indirect affect is in the form of access roads going through the middle of a settlement. I also suggested that the local community be involved with some of the sites. This involvement should be an attempt to identify who lived in the settlements on the borders of the mine, and if any ancestral remains occur. This will benefit the company in terms of community relations by acknowledging local heritage, and ensuring that (living) heritage sites are not inadvertently affected without the community's knowledge. By

involving the community, the company will also be able to date the sites by means of oral history.

If any of the sites are affected by mining then a permit from the SAHRA will need to be obtained prior to its impact.

Figure 8: IND4 - Bridge

