Jaco van der Walt & Associates

Cultural Resource Consultants

PHASE 1
ARCHAEOLOGICAL IMPACT ASSESSMENT

A cultural heritage evaluation for the proposed sewerage line in Duiwelskloof

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For: Bio 8

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1. EXECUTIVE SUMMARY

Site name and location: Sewerage works in Duiwelskloof

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Date of fieldwork: 7 April 2003

Date of report: 16 April 2003

Findings: Two Late Iron Age sites of low significance were found, consisting of a low scatter of undecorated and decorated ceramics. No mitigation is required for the proposed development of the pipeline in Duiwelskloof.

1. INTRODUCTION

The **Project Proposal** constitutes an activity that is listed in terms of the Environmental Conservation Act (Act No. 73 of 1989), for which an Environmental Impact Assessment is required to satisfy the requirements of the List of Activities and Regulation for EIA's – Government Gazette of 5 September 1997 - provided for in terms of sections 21, 22 and 26. In addition, the National Heritage Resources Act (Act No. 25 of 1999), protects all archaeological, palaeontological and historical sites and graves, and requires heritage resources impact assessments in terms of Section 38. To satisfy the requirements of the above legislation, a Phase 1 Heritage Impact Assessment (scoping & evaluation) of the proposed sewerage pipeline in Duiwelskloof was undertaken. In order to comply with legislation, the developer requires information on the heritage resources, and their significance that occur on the demarcated area. This will enable the developer to take pro-active measures to limit the adverse effects that the development could have on such heritage resources.

2.THE AIM OF THIS REPORT

The author was contracted by Wilhelm Joubert of Bio 8 to undertake a Phase 1 Heritage Impact Assessment of the proposed Acornhoek service station.

The aims of this assessment are:

- To determine whether the presence of heritage resources such as archaeological and historical sites and features, graves and places of religious and cultural significance will have an impact on the nature of the proposed development.
- To assess the impact of the proposed project on such heritage resources
- To provide the developer with appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites / features.

This report aims to provide an overview of the heritage resources that were detected within the proposed development area. The impact and significance of the heritage resources were assessed in terms of criteria defined in the methodology section.

2. LOCATION

Refer to map, South Africa (1:50 000 2330CA.)

The demarcated area is situated in and around the town of Duiwelskloof. The town is accessible either from the R36 from Tzaneen or from Mooketsi. The longest stretch of the pipeline runs parallel with the main street in the road servitude. The pipeline will enter into an existing oxidation dam.

3. METHODOLOGY

3.1 Information gathered in a survey on foot

The archaeologist visited the proposed site as part of a Phase 1 Archaeological Impact Assessment on April 7, 2003. The area for the proposed pipeline was thoroughly surveyed on foot and by vehicle to determine it's cultural heritage status prior to the proposed development. Standard archaeological practices for observation were used to evaluate findings.

Most archaeological material occurs in single or multiple stratified layers beneath the soil surface and therefore special attention was given to disturbances, both man-made such as clearings and paths, as well as those made by natural agents such as burrowing animals and erosion. Locations of archaeological material were recorded by means of a GPS (Garmin E Trex). Archaeological material and the general conditions on the terrain were photographed with a Canon digital camera.

3.2 Assumptions and Limitations

It is important to keep in mind that although the area was subjected to a very thorough cultural heritage survey, all heritage resources may not have been detected in the given study area. The area is characterized by dense undergrowth, which makes proper investigation of the area very hard to ensure, fortunately the area for the proposed line was already cleared by the time of the investigation (fig 1). The discovery of previously undetected heritage remains, below the surface that might occur only as development commences, must be reported and may require further mitigation measures.

3.3 Categories of significance

The significance of archaeological sites is ranked into the following categories.

No Significance	Do not require mitigation
Low Significance	May require mitigation
Medium Significance	Require mitigation
High Significance	Must not be disturbed at all

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

An important aspect to consider when determining the heritage significance and protection status of a resource is mostly whether the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. There are however many aspects that must be taken into consideration when determining significance, such as rarity, scientific importance, national significance, cultural and religious significance and community preferences. When the protection of a heritage site is deemed to be not necessary or practical, its research potential must be assessed and mitigated in order to gain data / information that would be lost otherwise. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.

3.4 Explanation of terminology

<table>
<tr><td>Cultural Heritage Assessment</td><td>Includes an evaluation of heritage resources as outlined in the National Heritage Resources Act</td></tr>
<tr><td>Iron Age</td><td>The Iron Age includes both Pre historic and Historic period. The entire Iron Age represents the spread of Bantu speaking people. It too can be divided into three categories:

<table><tr><td>Early Iron Age</td><td>Most of the first millennium AD</td></tr><tr><td>Middle Iron Age</td><td>10th to 13th centuries AD</td></tr><tr><td>Late Iron Age</td><td>14th century to colonial period.</td></tr></table></td></tr>
<tr><td>Phase 1 assessments</td><td>Represents surveys using different sources of information to establish the presence of and to evaluate all types of heritage resources in a given area.</td></tr>
<tr><td>Phase 2 assessments</td><td>In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features or, alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling.</td></tr>
<tr><td>Sensitive remains</td><td>Often refers to graves and burial sites although not necessarily a heritage place as well as ideologically significant places such as ritual / religious / sacred places. Graves are only considered heritage resources if they date from the historic past or before and have tombstones older than sixty years. Sensitive may also refer to an entire landscape / area known for its significant heritage remains</td></tr>
</table>

3. RELEVANT LEGISLATION

One set of legislation is relevant for this study with regard to protection of heritage resources and graves.

3.1 The National Heritage Resources Act (25 of 1999) (NHRA)

The National Heritage Act was established by the South African Heritage Resources Agency (SAHRA) and makes provision for the establishment of Provincial Heritage Resources Authorities (PHRA). The Act makes provision for the undertaking of heritage resources impact assessments for various categories of development as determined by Section 38. It also provides for the grading of heritage resources and the implementation of a three-tier level of responsibilities and functions for heritage resources to be undertaken by the State, Provincial authorities and Local authorities, depending on the grade of the Heritage resources. The Act defines cultural significance, archaeological and palaeontological sites and material (Section 35), historical sites and structures (Section 34), graves and burial sites (Section 36) that falls under its jurisdiction. Archaeological sites and material are generally those resources older than a hundred years. Section 34 also protects structures and cultural landscapes older than 60 years, including gravestones. Procedures for managing graves and burial grounds are clearly set out in Section 36 of the NHRA. Graves older than a 100 years are legislated as archaeological sites and must be dealt with accordingly

Section 38 of the NHRA makes provision for application by developers for permits before any heritage resource may be damaged or destroyed.

5. ARCHAEOLOGICAL FINDS

SITE 1 General Co-ordinates: *S 23° 41'22.0"*
E 30° 08'36.7"

This is the location of a low concentration of scattered undecorated ceramics (Fig. 2), exposed by the initial clearing for the proposed pipeline (Fig. 1).

Significance: Low, this site will not require mitigation .

SITE 2 General Co-ordinates: *S 23 41'09.9"*
E30 08'52.0"

This is the location of a scatter of decorated and undecorated ceramics exposed by the initial clearing of the pipeline. This location is close to a small stream on a steep slope.

Significance: Low, this site will not require mitigation.

6. EVALUATION AND INTERPRETATION

Both sites 1 & 2 constitutes a low density of scattered ceramics, site 1 did not yield any diagnostic potsherds and cannot be associated with a cultural group. Site 2 on the other hand yielded 2 diagnostic potsherds (Fig. 3 & 4) but even so the surface finds were found to be of low density.
The two diagnostic potsherds conform to the Later Iron Age Letaba pottery and dates to the 1600 and after. Neither site 1 or 2 seems to be archaeological habitational sites but rather the location of occasional broken pots used for collecting water. No other indicators like surface features, ash middens etc. were found to indicate to archaeological sites. Both sites 1 & 2 do not seem to have any cultural significance.

7. RECOMMENDATIONS

This Phase 1 Archaeological impact assessment found no significant evidence of cultural heritage resources on the proposed route of the pipeline. It is therefore suggested that development can commence, as there will be no implications regarding cultural heritage resource mitigation.

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Appendix A

Photos: Fig 1. Initial clearing for proposed pipeline.

Fig 2. Undecorated ceramics at site 1.

Fig 3. Typical Late Iron Age Letaba Pottery.

Fig 4. Typical Late Iron Age Letaba Pottery.

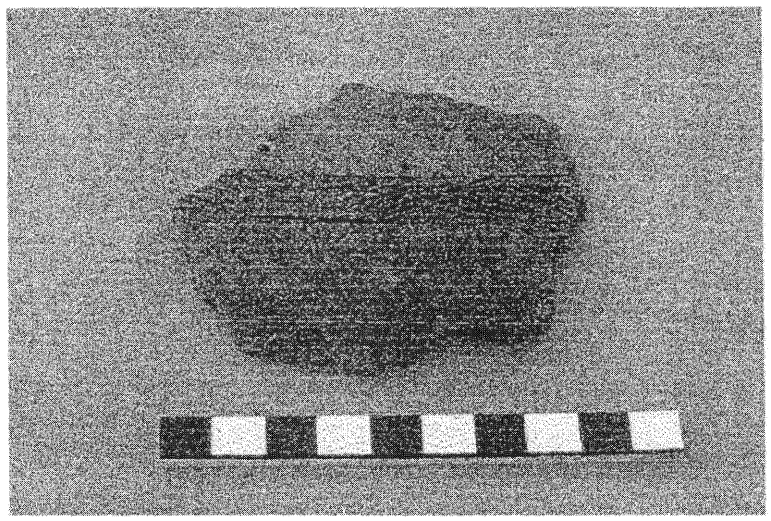

Fig 3. Typical Late Iron Age Letaba pottery

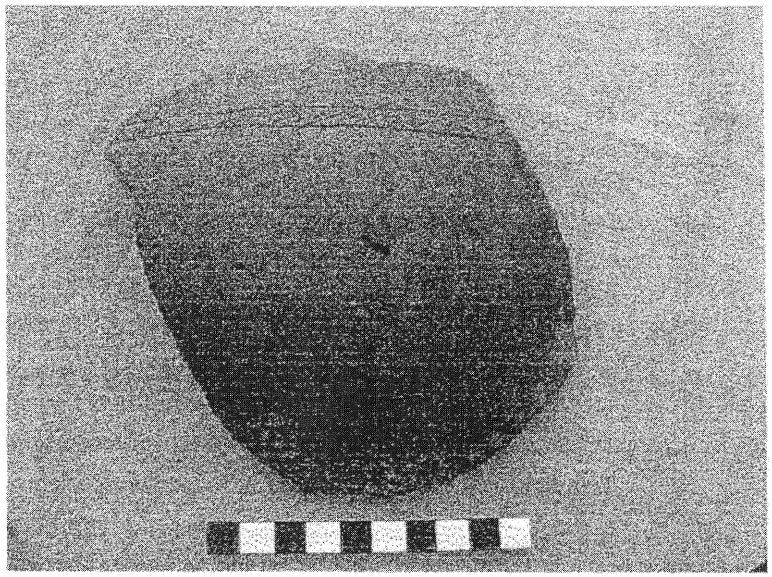

Fig 4. Typical Late Iron Age Letaba pottery

Appendix B

Locality map.

DUIWELSKLOOF

1 : 50 000 MAP

2330 CA