

9-2-253-0003-20000601-A1NP

9/2/253/003

PRELIMINARY ARCHAEOLOGICAL IMPACT ASSESSMENT

For the Petersburg Regional Waste Water Purification Works

TABLE OF CONTENTS

1. INTRODUCTION	2
2. AIM	2
3. FIELDWORK.....	3
4. GEOGRAPHICAL/ENVIRONMENT SETTING	3
5. METHODOLOGY	3
6. SITE DESCRIPTIONS.....	5
6.1 AREA 1	5
6.1.1 WEP 001	6
6.1.2 WEP 002	6
6.2 AREA 2	6
6.3 AREA 3	7
6.3.1 EEP 001	7
6.4 AREA 4	7
7. INTERPRETATION AND RECOMMENDATIONS.....	8
7.1 AREA 1	8
7.1.1 WEP 001	8
7.1.2 WEP 002	8
7.2 AREA 2	8
7.3 AREA 3	9
7.3.1 EEP 001	9
7.4 AREA 4	9
8. CONCLUSION	9
9. REFERENCES	10

PRELIMINARY ARCHAEOLOGICAL IMPACT ASSESSMENT
FOR THE PIETERSBURG REGIONAL WASTE WATER
PURIFICATION WORKS

1. Introduction

A Preliminary Archaeological Impact Assessment (P.A.I.A.) for the proposed Pietersburg Regional Waste Water Purification Works was performed by Archaeo-Info Northern Province (AINP) on the farms Doornkraal 680 LS, Pilgrimsloop 630 LS and Doornbult 624 LS, north of Pietersburg in the Northern Province. Three proposed pipeline routes and a proposed site for the Treatment Works were surveyed. The P.A.I.A. was conducted in accordance with the newly approved and operational Act 25 of 1999 (National Heritage Resources Act) and comprised the evaluation of the archaeological sensitivity of the study area.

2. Aim

The three proposed pipeline routes and the proposed site for the Treatment Works were surveyed and investigated in an effort to ascertain the viability of the placement of the pipelines and the Treatment Works from an archaeological point of view. The three pipeline routes and Treatments Works were surveyed to determine the archaeological potential of each of these sites. The aim of the study was to provide detailed archaeological information and to advise the client on the best option for the placement of the pipelines and the Treatment Works from an archaeological viewpoint. As with previous projects in the Northern Province special attention was given to the identification and plotting of graves on the proposed pipeline routes and inside the proposed Treatment Works site.

3. Fieldwork

Members of Archaeo-Info Northern Province met with Mr. Theo Kotzé of Developlan in Pietersburg on June 30, 2000 for orientation at his offices. After the orientation Mr. Kotzé pointed out the proposed routes from where the survey commenced. Three pipeline routes namely the Western Embankment Pipeline, the Eastern Embankment Pipeline and the Bloedrivier Pipeline, as well as the Treatment Works site were investigated. The survey was completed the same day.

4. Geographical/Environment Setting

The study areas are situated on the farms Doornkraal 680 LS, Pilgrimshoop 630 LS and Doornbult 624 LS north of Pietersburg. The Eastern Embankment Pipeline will be situated on the eastern side of the Sandrivier running from south to north up to the proposed Treatment Works site on the farm Doornbult. The Western Embankment Pipeline will be situated on the western side of the Sandrivier running south to north up to the confluence of the Bloedrivier and Sandrivier. At the confluence the Western Embankment Pipeline will join up with the Eastern Embankment Pipeline. The Bloedrivier Pipeline will be situated on the southern side of the Bloedrivier running west to east up to the confluence of the Bloedrivier and Sandrivier where it will join up with the Eastern Embankment Pipeline.

Dense riverine forest is present on the banks of the two rivers. These areas were debushed and cleared in order to be cultivated. Large areas along the Sandrivier and Bloedrivier were previously and are still presently being intensively cultivated. Only a few small stretches along the three proposed pipeline routers were not affected by previous agricultural activities.

5. Methodology

The study areas were surveyed using standard archaeological surveying methods. The proposed routes and site were covered by foot and by vehicle

and the investigators were on the lookout for surface finds, plant growth anomalies and other indicators for archaeological evidence. Test probes were done at intervals in areas such as the confluence of the Sandrivier and Bloedrivier and higher lying ground to determine sub-surface occurrence of archaeological material. Standard archaeological formats were employed in the description of sites. Using standard documentation forms as comparable medium, it enabled the surveyors to evaluate the relative importance of the sites found. Furthermore, GPS (Global Positioning System) readings of all finds and sites were taken. This information was then plotted using a *Magellan 2000 XL GPS* (WGS 84 co-ordinate system). All archaeological artefacts, if any were found, were photographically documented (100 ASA colour prints, Ricoh KR10 SLR).

The importance of sites was assessed by comparison with published information as well as comparative collections. All sites or possible sites found were classified using a hierarchical system wherein sites were assessed using a scale of one to five on the basis of their importance. These categories are as follows:

Category 1. Sites in this category are of such great international and/or national importance in terms of cultural heritage that they can not be disturbed or altered at any cost. No development will be allowed in such an area. It should be noted that sites in this category are very rare - e.g. - *Great Zimbabwe, Swankrans, Mapungubwe.*

Category 2. Although these sites are not unique in terms of their culture, they are of such archaeological value that any decision concerning their destruction can only be taken after full scale excavations have been undertaken - e.g. -

Thulamela

Category 3. These sites are of lesser importance than the first two categories, but should be fully documented before they are destroyed. This documentation would entail the excavation of certain parts of the site - e.g. -

Masorini

Category 4. Sites in this category consist of scattered evidence of archaeological occupation. Sometimes dilapidated stonewalling can occur. Surface scatters of cultural material are evident. A limited number of test trenches should be excavated in order that the cultural affinity and importance of the site can be established.

Category 5. Areas that consist only of a very loose scattering of cultural material on the surface. No structures are visible and little archaeological deposits are evident. The occurrence of cultural material could, for example, be due to erosion. Apart from the surface collection of cultural material, no further work needs be done on such sites.

NB: It is important that any archaeological sites should be monitored during construction.

Category 6: Graves. The only archaeological aspect that could still be encountered during construction is the exposure of unmarked graves.

It should be noted that graves are subjects of great sensitivity and should be treated as such. Prompt and correct procedures will eliminate possible embarrassing situations for the developer.

6. Site Descriptions

The results of the survey and the description of the sites or finds of each area will be discussed in the following section. The sites were attributed a reference code which consisted of an abbreviation of the pipeline or site (i.e. Western Embankment Pipeline - WEP) and a numerical indicator. A GPS co-ordinate was given for each site as well as a short description.

6.1 Area 1

Site description

Site name: Western Embankment Pipeline

Site Size: ± 6 km (40 metre reserve)
Farm: Doornkraal 680 LS
Surveying points: R23 – R28

6.1.1 WEP 001

G.P.S. 23° 51' 55" S
29° 26" 04" E

Surveying point: R23 – R24

Description:

The Doornkraal Monument inside a small camping site alongside the R521 to Dendron was found to be within the given reserve to be surveyed. The monument was erected to commemorate the Groot Trek and was unveiled on 16 December 1961. Although it was indicated to the investigators that the pipeline will be situated outside the small camping site, they felt it was still necessary to mention the location of the monument in the report.

6.1.2 WEP 002

G.P.S. 23° 51' 27" S
29° 26' 02" E

Surveying point: R25 – R26

Description:

One small fragment of vitrified clay (photo 1) was found in a footpath. The area was surveyed in detail and several test probes were done to find more material, which could assist with the identification and explanation of the vitrified clay. Alas, nothing was found.

6.2 Area 2

Site description:

Site name: Bloedrivier Pipeline
Site size: ± 4 km (40 metre reserve)

Farm: Pilgrimshoop 630 LS

Surveying points: R28 – R30

Nothing of archaeological value was found along this proposed pipeline route.

6.3 Area 3

Site description:

Site name: Eastern Embankment Pipeline

Site size: ± 10 km (40 metre reserve)

Farm: Doornkraal 680 LS, Pilgrimshoop 630 LS, Doornbult 624 LS

Surveying points: R5 – R20

6.3.1 EEP 001

G.P.S. 23° 47' 57" S

29° 27' 05" E

Surveying point: R19 – R20

Description:

A *possible* grave was found. Stones were packed in a rectangular shape and the elongated structure was orientated north-east to south-west (photo 2). No other indications such as a gravestone or gravegoods were found to justify the presence of a grave. This possible grave was found just outside the direct line between surveying points R19 and R20.

6.4 Area 4

Site description:

Site name: Treatment Works Site

Site size: ± 120 ha

Farm: Doornbult 624 LS

Nothing of archaeological value was found on the proposed site.

7. Interpretation and Recommendations

The sites were attributed a category as described in the section on methodology and the interpretation and recommendations for the sites and finds are as follows:

7.1 Area 1

7.1.1 WEP 001

Category 3

Although it was pointed out that the monument would not be directly affected by the development of the pipeline, it is essential to mention that the monument should not be disturbed or altered during the construction. The monument is a registered national monument and should be left alone.

7.1.2 WEP 002

Category 5

The origins of the vitrified clay fragment could not be explained. Similar fragments were found on other archaeological sites in the Northern Province, which could be connected to furnaces for iron reduction and smelting. However, no further archaeological evidence could be found to indicate the presence of any archaeological iron working activities. No further archaeological work is necessary.

7.2 Area 2

No further archaeological work is recommended.

7.3 Area 3

7.3.1 EEP 001

Category 6

The investigators are not totally convinced that this feature is a grave. The possibility although still exists that it might be a grave and therefor should be avoided. This possible grave does not lie directly between surveying points R19 and R20 and could be avoided without any problems. If it is not possible to avoid this grave, further investigations is necessary to confirm the existence or not of a grave. This will provide information to determine any further action.

7.4 Area 4

No further archaeological work is recommended.

8. Conclusion

Four proposed sites for development on the farms Doornkraal, Pilgrimschoop and Doornbult underwent detailed archaeological investigations. Findings on each of the sites were evaluated and recommendations were given for further action.

The development of the proposed pipelines and the Treatment Works can continue from an archaeological point of view. The developers should pay attention to the recommendations as give to WEP 001 and EEP 001 as to avoid any complications which could affect the planning and construction of the pipelines and Treatment Works.

9. References

1. Loubser, J.H.N. 1994. *Ndebele Archaeology of the Pietersburg Area*. Navorsinge van die Nasionale Museum Bloemfontein. (10)2: 61 - 147.