

Phase 1 Archaeological Impact Assessment of proposed new sand  
mine development on Portion 1 of the farm Hoffman's Rust 173  
near Wepener, FS Province.

Report prepared for  
Proper Consulting Engineers

by

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## **Executive Summary**

A Phase 1 Archaeological Impact Assessment was carried out over a 5 ha area covering an existing open pit sand mine on Portion 1 of the farm Hoffman's Rust 173. The site is located on the banks of the Caledon River, about 6 km west of Wepener, eastern Free State Province. The study area is underlain by geologically recent (Holocene) and well-developed, but archaeologically sterile alluvium (river sand). There is no above-ground evidence of building structures older than 60 years, graves, Stone Age archaeological remains, Iron Age structures or material of cultural significance within the confines of the development footprint. In terms of its archaeological significance the proposed development footprint is assigned a site rating of General Protection C (GP.C).

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## Introduction

At the request of Proper Consulting Engineers a Phase 1 Archaeological Impact Assessment was carried out over a 5 ha area covering an existing open pit sand mine on Portion 1 of the farm Hoffman's Rust 173. The site is located on the banks of the Caledon River, about 6 km west of Wepener, eastern Free State Province (**Fig. 1**). The extent of the affected areas (over 5000 m<sup>2</sup>) falls within the requirements for a Heritage Impact Assessment (HIA) as required by Section 38 (Heritage Resources Management) of the South African National Heritage Resources Act (Act No. 25 of 1999). The task involved identification of possible archaeological sites or occurrences in the proposed zone, an assessment of their significance, possible impact by the proposed development and recommendations for mitigation where relevant.

### Terms of Reference

- Identify and map possible heritage sites and occurrences using published and database resources;
- Determine and assess the potential impacts of the proposed development on potential heritage resources;
- Recommend mitigation measures to minimize potential impacts associated with the proposed development.

### Approach and Methodology

The archaeological significance of the affected area was evaluated through a desktop study and carried out on the basis of existing field data, database information and published literature. This was followed by a field assessment by means of a pedestrian and vehicle survey. A Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a digital camera were used for recording purposes. Relevant archaeological information, aerial photographs and site records were consulted and integrated with data acquired during the on-site inspection. The study area is rated according to field rating categories as prescribed by SAHRA (**Table 1**).

## Locality data

Maps: 1:50 000 scale topographical map 2926DB Jammerdrif.

Site Coordinates (**Fig 2**):

- A) 29°43'43.71"S 26°57'14.97"E
- B) 29°43'38.77"S 26°57'18.11"E
- C) 29°43'31.18"S 26°57'25.13"E

- D) 29°43'29.66"S 26°57'30.66"E
- E) 29°43'32.82"S 26°57'32.94"E
- F) 29°43'38.77"S 26°57'21.31"E
- G) 29°43'43.65"S 26°57'17.53"E

The study area is located next to an existing sand mine operation on top of overgrown overbank sediments of the Caledon River (**Fig. 3 & 4**).

## **Background**

The archaeological footprint in the region are primarily represented by Stone Age archaeological localities, rock art sites and an extensive footprint related to the distribution of Iron Age settlements and early history of Sotho-speaking communities along the Caledon River Valley. Stone Age artifacts are generally common as surface material on the South African central plateau, but it often does not occur within a sealed environment or lacks high visibility. As a result, archaeological surface material is liable to be displaced laterally over time so that their original locus may have changed. Nevertheless, the Caledon River valley has produced significant Stone Age archaeological sites such as Bokpoort, Orange Springs, Fort Savange, Leliehoek and Rose Cottage Cave (Humphreys 1991; Wadley 1991; Thorp. and De Ruiter 1997; Cochrane 2008. Rose Cottage Cave, situated on the Platberg south of Ladybrand, contains rock art and an archaeological deposit with artifacts that goes back to the Middle Stone Age. In addition to Later Stone Age levels with European and Iron Age artifacts, Rose Cottage Cave also has a long cultural sequence incorporating several MSA and LSA industries ranging from ca. 70 ka to around 10 ka ago. Another noteworthy site is a small shelter situated on an east-facing slope of the Platberg, which contains rock paintings and a stratigraphic sequence that goes back to the mid-Holocene (ca. 5000 years Before Present). Artifacts include stone tools, worked bone, ostrich eggshell and pottery. Rock shelters associated with more recent hunter – gatherer activities are found at Rooikrans, Mauermanshoek, Westbury and Tienfontein. Historical accounts of the middle Caledon Valley indicate that hunter-gatherers survived as communities until the end of the Basuto Wars and the establishment of European farms in 1869. Stow (1905) records traditions about the last "Bushmen" inhabitants of the Korannaberg (Mequatling) and the Platberg situated about 4 km south of Ladybrand. Numerous rock art sites have been recorded in the region with up to 15 farms listed from the Wepener district (Van Riet Low 1941).

There are a number of Iron Age sites that are not distinct enough to be given a typological label but are referred to loosely as the Caledon Valley sites. These sites, which resemble Maggs's Type V

settlement pattern, occur near Ladybrand and continue to south of Wepener. Most occur within the Caledon River drainage Basin. These sites were occupied during the eighteenth and nineteenth centuries and maybe earlier as well, based on radiocarbon dating and historical evidence. Some of the Caledon Valley sites were occupied as late as the outbreak of the Difaqane in 1822 (Lye 1967). Precipitated by the rise of Shaka's Zulu empire among the coastal Nguni-speaking peoples, the Difaqane resulted in the creation of large-scale refugee communities that were continued and extended over the whole interior by resident Southern Sotho-speaking peoples who could not resist the advanced military and political system of the Nguni invaders, but rather led to the segmentation of the Southern Sotho into numerous antagonistic communities scattered along the Caledon River Valley. It is not certain when Iron Age peoples first arrived in the Caledon Valley but according to historical accounts, the southward migration of early Sotho-speaking communities led to at least one group reaching the Caledon Valley about the mid-seventeenth century and occupying most of the upper and middle parts of the valley by 1800 AD (Walton 1956).

## **Field Assessment and Recommendations**

Although the above mentioned archaeological sites may not be directly relevant to the proposed development, their presence and location emphasize the archaeological sensitivity of the region and also highlights the relative abundance of Stone Age and Iron Age archaeological sites situated within the Caledon River Basin. The study area is underlain by homogenous and culturally sterile overbank sediments (unconsolidated river sand). There is no above-ground evidence of building structures older than 60 years, graves, Stone Age archaeological remains, Iron Age structures or material of cultural significance within the confines of the development footprint. In terms of its archaeological significance the proposed development footprint is assigned a site rating of General Protection C (GP.C).

## **References**

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Walton, J. 1956. Early Bafokeng settlement in South Africa. *African. Studies*. 15: 37 – 43.

#### DECLARATION OF INDEPENDENCE

I, Lloyd Rossouw, declare that I act as an independent specialist consultant. I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference. I have no interest in secondary or downstream developments as a result of the authorization of this project and have no conflicting interests in the undertaking of the activity.

A handwritten signature in black ink, appearing to read 'L. Rossouw', written in a cursive style.

26 / 01 / 2017

## Tables and Figures

**Table 1.** Field rating categories as prescribed by SAHRA.

<b>Field Rating</b>	<b>Grade</b>	<b>Significance</b>	<b>Mitigation</b>
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction



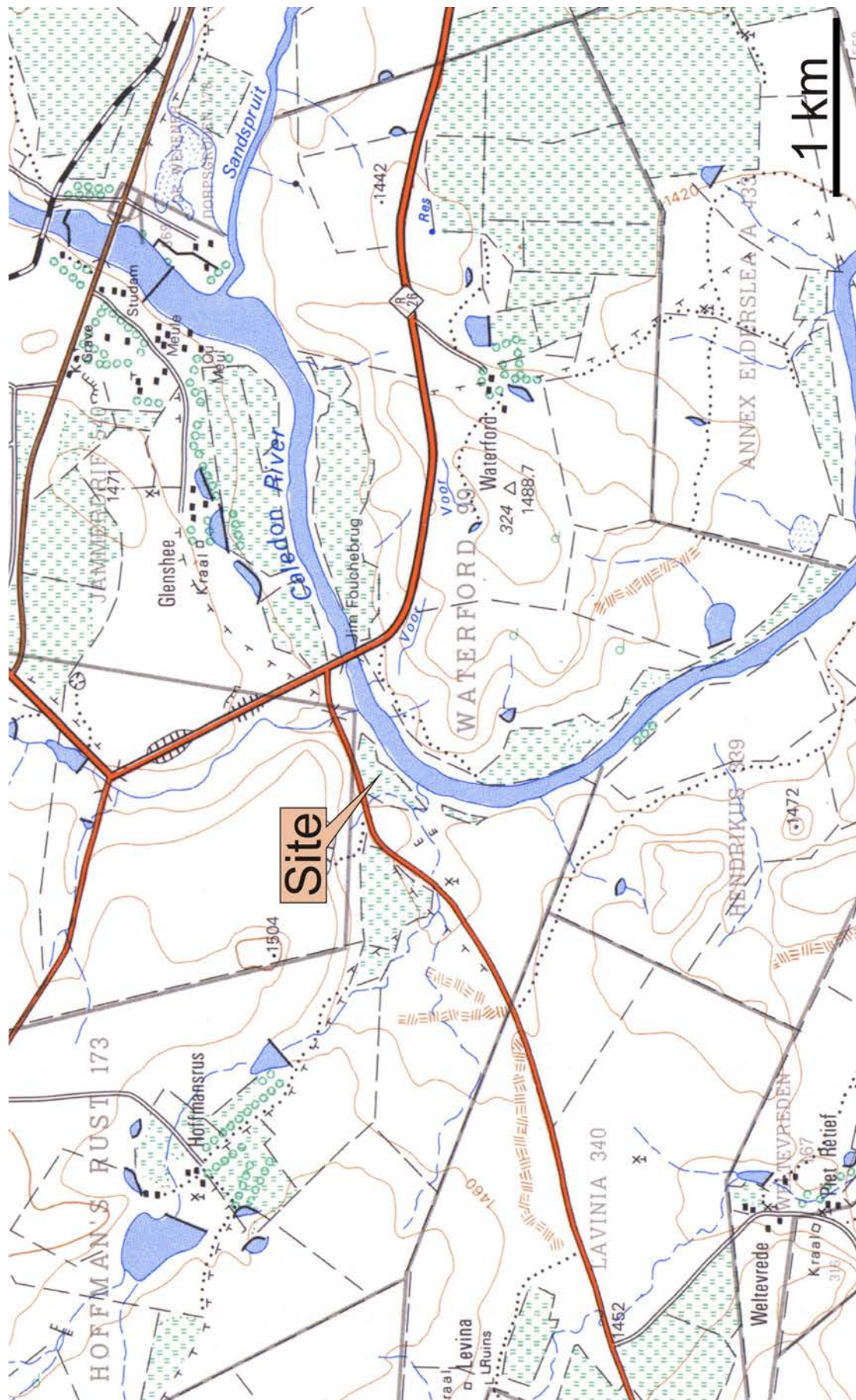


Figure 1. Map of the study area (portion of 1:50 000 scale topographic 2926DB Jammerdrif).



Figure 2. Aerial view of the study area.



Figure 3. The riverbed, looking south.



Figure 4. General view of the study area looking southwest (top left), north (right) and east towards the riverbank (below left). Scale 1 = 10 cm.