

Phase 1 Archaeological Impact Assessment of farm
Fourteen Streams, Warrenton District, Northern Cape
Province.

May 2008



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Report prepared for
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Executive Summary

- Several ruins were recorded along the Vaalharts Irrigation Scheme canal and the Vaal River. The riverbank itself is extensively overgrown with few erosional exposures.
- Four graveyards were identified. One graveyard has been abandoned for a long period.
- Exposed sections of river gravel deposits were investigated for archaeological material. These intact gravel facies were sterile in terms of Stone Age material.
- Isolated and uncapped occurrences of Later Stone Age stone tools were recorded on the modern land surface.
- A rock art site with over 80 different engravings is located close to the river.
- The areas with medium to high sensitivity ratings must be considered when future developments are planned and where relevant, incorporated into appropriate management plans. The rock engraving site are archaeologically very sensitive and must be demarcated and avoided at all costs.

Introduction

An AIA of the farm Fourteen Streams was carried out in May 2008. The survey is required as a prerequisite for new development in terms of the National Environmental Management Act and is also called for in terms of the National Heritage Resources Act 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 future development and recommendations for mitigation where relevant.

Description of the Affected Area

Details of area surveyed

Locality data

The farm covers about 3000 hectares and is located between the Vaalharts Dam Weir and the train bridge immediately northeast of the town of Warrenton. The area includes the Veertien Strome railway siding (S28 04.281 E24 53.020) and the Nazereth Farm community (S28 06.647 E24 54.618)

Geology

Landscape topography in the lower Vaal River area consists largely of coalescent planar surfaces resting on a pre-Karoo platform of Ventersdorp basalts and andesites. Gravel deposits are laterally very extensive and are deposited up to 110 m above the current riverbed of the Vaal River. These alluvial deposits are manifested as terrace exposures in the Warrenton area, and consist of grit to cobble grade conglomerate with granular to pebbly clasts. Raw material mainly consists of quartz, quartzite, agate, chert or banded ironstone set in a matrix of dark red, fine to medium sand. The gravels are spread across a pre-Karoo platform of Ventersdorp lava pockmarked with thin remnants of Karoo sediments preserved in depressions.

Methodology

All structures and sites that were observed were recorded using a Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a Sony W17 digital camera.

Historical Background

The area was already known as Veertien Strome in the 1880's, apparently referring to a number of waterfalls in the Vaal River. In January 1884 Z.A.R. president Paul Kruger met Cecil John Rhodes at Veertien Strome to discuss the deteriorating relationship between Britain and the Transvaal. Some of the first skirmishes of the Anglo Boer War occurred at the river crossing at Veertien Strome when the Boers occupied it. British forces eventually retook the river crossing in May 1900. The railway line from the Cape initially ended at the Veertien Strome railway siding during the late 19th century. It was extended to Johannesburg by the De Beers Consolidated Mines and officially opened in April 1906.

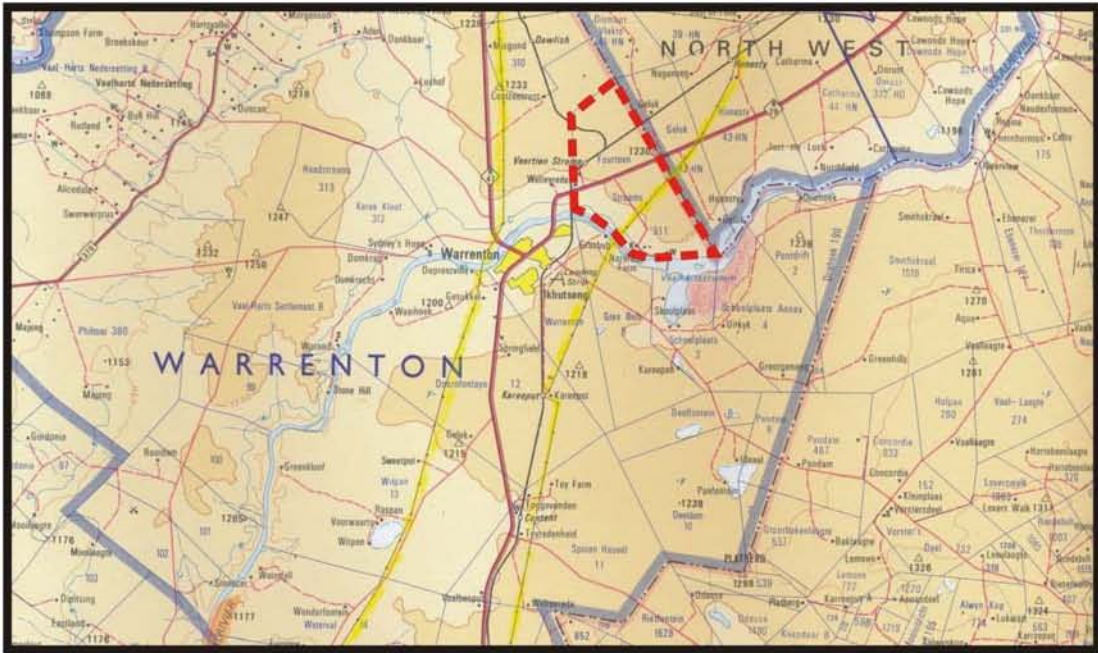


Figure 1. 1 to 250 000 topographical map (2824 Kimberley) of the region. Fourteen Streams shown by dotted line.

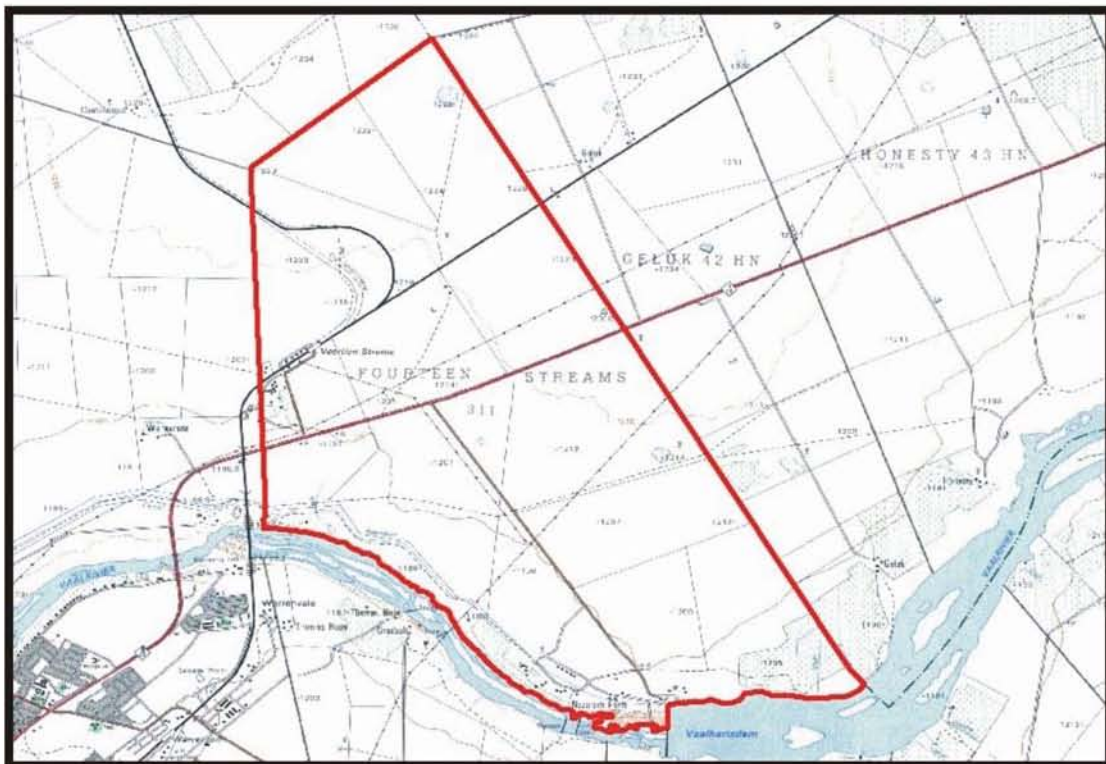


Figure 2. 1 to 50 000 topographical map of the farm Fourteen Streams.

Archaeological and Palaeontological Background

The lower Vaal River Basin has produced a wealth of archaeological finds from its fluviially deposited Pleistocene river gravels. Acheulian (Early Stone Age) handaxes, cleavers and core-axes, primarily made from quartzite, have been retrieved from various gravel localities along the Vaal. In addition, the gravel deposits are largely mantled by Hutton Sands, of which the lower levels have shown evidence of high densities of Fauresmith blades, which is regarded as an important transitional railway lines from the Cape Stone Age artifacts as open-site scatters is also common on the modern landscape.

No archaeological artifacts or vertebrate fossil remains have been previously reported from the gravel deposits or younger overburdens on Fourteen Streams. Several Early Stone Age handaxes have been found on Cawoods Hope in exposures in the riverbed showing moderately coarse gravel layers capped by silt and clayey deposits. Calcareous tufa is also found on exposed Dwyka beds and Ventersdorp bedrock, especially at Cawoods Hope, Catharina, and Onrust. Later Stone Age artifacts occur on these deposits at various places.

Rock engravings have been recorded in the region including human figures, animals, therianthropes and geometric motifs.

Extensive fossil fauna of uncertain provenance have been retrieved from the alluvial and terrace gravels between Bloemhof and the Vaal River's junction with the Orange. However, there are no previous records of fossils from this area. Finds from river silts near the Warrenton townlands include an upper right third molar of the plains zebra, *Equus burchelli*, a well-mineralized left mandibular ramus of the spotted hyaena, *Crocuta crocuta*, and a lower right first molar of the giant extinct buffalo, *Homoioceras antiquus*.

Results of Survey

Historical and archaeological features recorded during the survey, are shown in Table 1.

- Overgrown cobble heaps and stone piles, caused by the construction of the Vaalharts Irrigation Scheme canal in 1935, are clearly visible on the landscape and show alteration of extensive areas flanking the concrete canal that was once pristine veld. The rest of the area can largely be described as disturbed agricultural land.
- Several historical ruins were recorded along the canal and the Vaal River. The riverbank itself is extensively overgrown with few erosional exposures.
- Four graveyards were identified. One graveyard has been abandoned for a long period.
- Exposed sections of river gravel deposits were investigated for archaeological material. These intact gravel facies were sterile in terms of Stone Age material.
- Isolated and uncapped occurrences of Later Stone Age stone tools were recorded on the modern land surface.

- A rock art site with over 80 different engravings is located close to the river.

Table 1. Historical and archaeological features recorded during the survey.

	Feature	Coordinates	Sensitivity
	Nazereth Farmstead &		Low
1	Graveyard	S28 06.647 E24 54.618	
2	Tower & Wall ruins	S28 06.710 E24 54.846	Medium
3	LSA Stone tools	S28 06.636 E24 55.064	Low
4	Historical Ruins	S28 05.894 E24 54.050	Medium
5	Graveyard	S28 05.804 E24 54.065	High
6	Historical Ruins	S28 05.828 E24 54.005	Medium
7	LSA Stone tools	S28 04.871 E24 55.103	Low
8	LSA Stone tools	S28 04.782 E24 54.673	Low
9	LSA Stone tools	S28 03.456 E24 54.645	Low
10	Graveyard	S28 04.831 E24 52.905	High
11	Old Bridge	S28 05.333 E24 52.703	Low
12	Historical Ruins	S28 05.378 E24 52.699	Medium
13	LSA Stone tools	S28 05.403 E24 53.502	Low
14	Rock engravings	S28 06.496 E24 55.082	High
15	Historical Ruins	S28 05.364 E24 53.050	Medium
16	Graveyard	S28 05.317 E24 53.303	High

Field Rating

The designated area is of low to medium archaeological significance.

Recommendations

Potential archaeological impact of future development on the farm should be minimal provided that certain mitigative measures are taken into consideration.

- The areas with medium to high sensitivity ratings must be incorporated into all future management plans.
- The rock engraving site are archaeologically very sensitive and must be demarcated and avoided.

References

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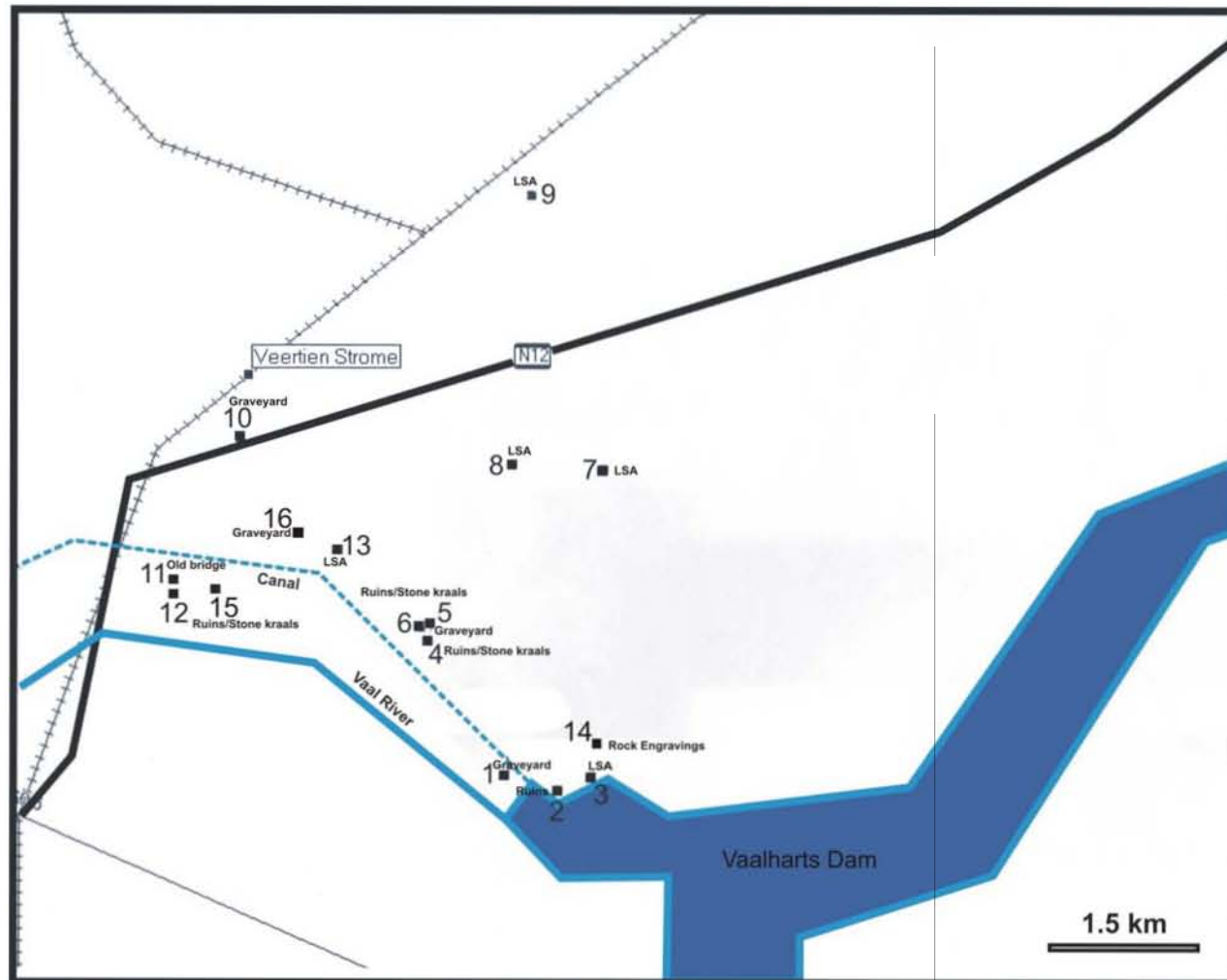


Figure 3. Map of historical and archaeological features recorded.

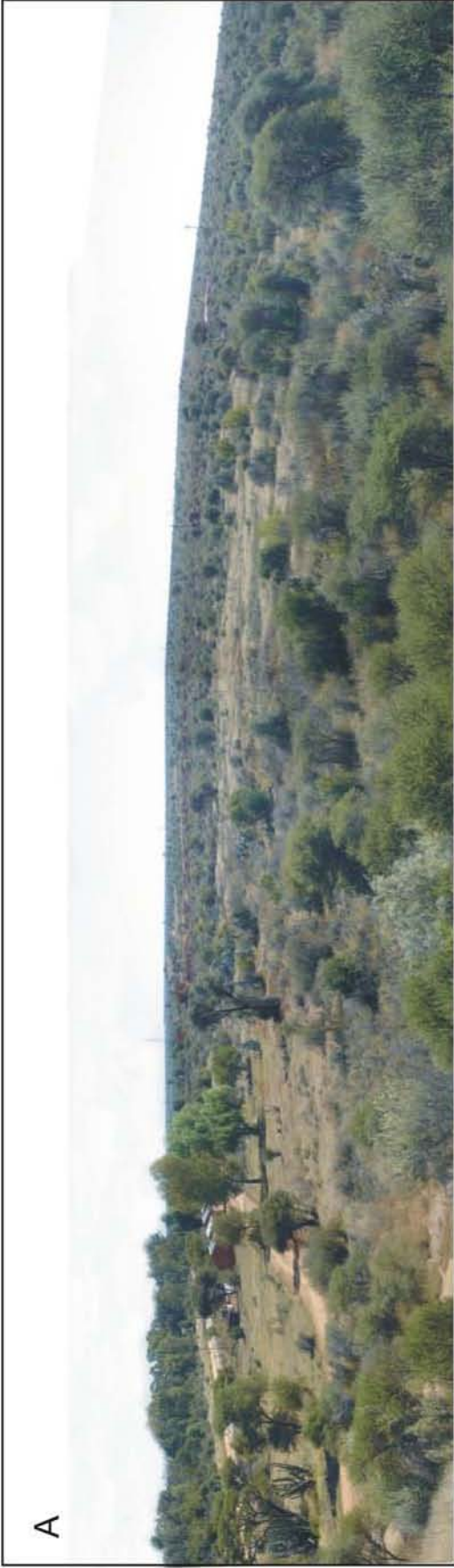


Figure 4. General view of the local environment (A); the canal and disturbances caused by its construction in 1935 (B, C & D).

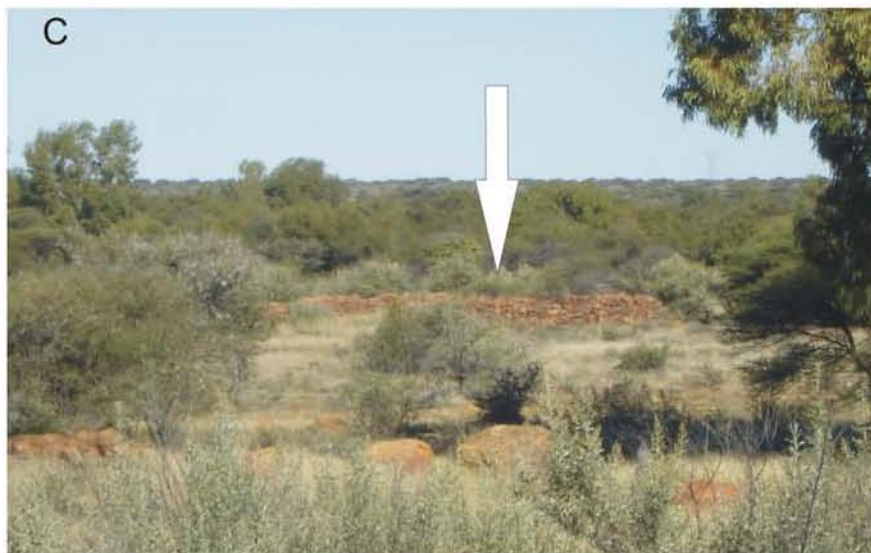


Figure 5. Historical structures. Dilapidated stone wall and tower (A); stone foundations (B); kraal ruins (C).



Figure 6. An abandoned graveyard (A) and one still in use (B).



Figure 7. Intact fluvial gravel deposits (A) and a small, uncapped chalcedony core (B).