

Phase 1 Heritage Impact Assessment for industrial development on Plot 14, Ribblesdale, Bloemfontein, Free State Province.

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Introduction

The application relates to a proposed industrial development covering a 4 ha area on Plot 14 Ribblesdale, Bloemfontein. The site is situated next to the R30 road in Ribblesdale and about 10 km north of the Bloemfontein CBD (**Fig. 1 & 2**).

Site Coordinates: 29° 2'18.75"S 26°15'39.41"E

Map Reference:

1:50 000 scale topographic 2926 AB

1:250 000 scale geological 2926 Bloemfontein

The heritage significance of the affected area was evaluated on the basis of existing field data, database information and published literature. This was followed by a field assessment by means of a pedestrian survey. A Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a digital camera were used for recording purposes. Maps and aerial photographs (incl. Google Earth) were consulted and integrated with data acquired during the on-site inspection. Site significance classification standards prescribed by SAHRA (2005) were used to indicate overall significance and mitigation procedures where relevant (**Table 1**).

Background

According to the 1:250 000 scale geological 2926 Bloemfontein, the Bloemfontein area is underlain by fluvially derived sedimentary rocks of the Karoo Supergroup, with Jurassic volcanic and igneous intrusions in the form of dolerite sills and dykes dominating the local landscape (**Fig. 3**). Surface scatters of Later Stone Age and Middle Stone Age artefacts are frequent archaeological components in pristine rural areas around Bloemfontein and particularly along river drainages such as the nearby Modder River and the Renosterspruit. Other components relating to archaeological significance are military structural remnants and

graveyards dating back to the Anglo Boer War and its aftermath, located on the nearby farms Lilyvale 2313 and Rayton 431 and Hill View 1377. Structures relating to farming activities include stone kraals and the foundations of houses or sheds. Many of these structures are no longer intact.

Field Assessment

The underlying geology at the site is represented by paleontologically insignificant dolerite that is capped by a veneer of Quaternary overburden comprising brown to red calcareous soils (**Fig. 4**). Commercial developments have noticeably impacted on the surrounding area while the site itself has been extensively disturbed by current industrial activities, with no aboveground traces of historically significant structures, rock art (engravings), prehistoric structures or graves. A systematic foot survey showed no evidence for the preservation of Quaternary fossil remains or Stone Age archaeological material that are either capped or distributed as surface scatters on the landscape.

Impact Statement & Recommendation

As far as the palaeontological heritage is concerned, the proposed development may proceed with no additional heritage assessments necessary. Potential archaeological impact at the site is considered to be non-existent. The affected area is assigned a site rating of Low Significance (Generally Protected C, **Table 1**).

References

- Churchill, S.E., Brink, J.S., Berger, L.R. Hutchison, R.A., Rossouw L., *et. al.* 2000. Erfkroon: a new Florisian fossil locality from fluvial contexts in the western Free State, South Africa. *South.African Journal of Science* 96: 161 – 163.
- Partridge, T.C. *et al.* 2006. Cenozoic deposits of the interior. **In:** M.R. Johnson, *et. al.* (eds). *The Geology of South Africa*. Geological Society of South Africa.
- Rossouw, L. 2006. Florisian mammal fossils from erosional gullies along the Modder River at Mitasrust farm, central Free State, South Africa. *Navorsinge van die Nasionale Museum* 22(6): 145-162.

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.

03 / 05 / 2018

Tables & Figures

Table 1. Field rating categories as prescribed by SAHRA.

Field Rating	Grade	Significance	Mitigation
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

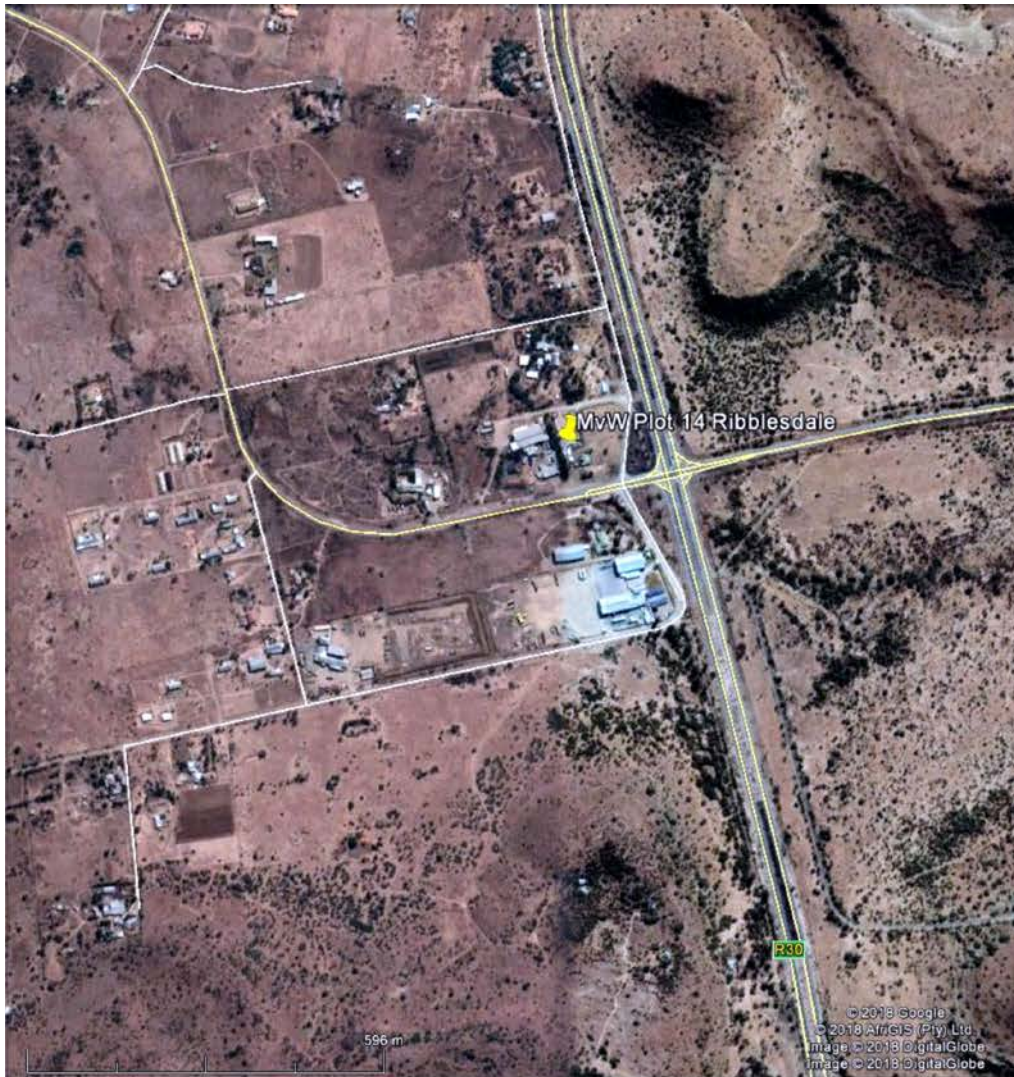


Figure 1. Aerial view of the study area.



Figure 2. General view of the site.

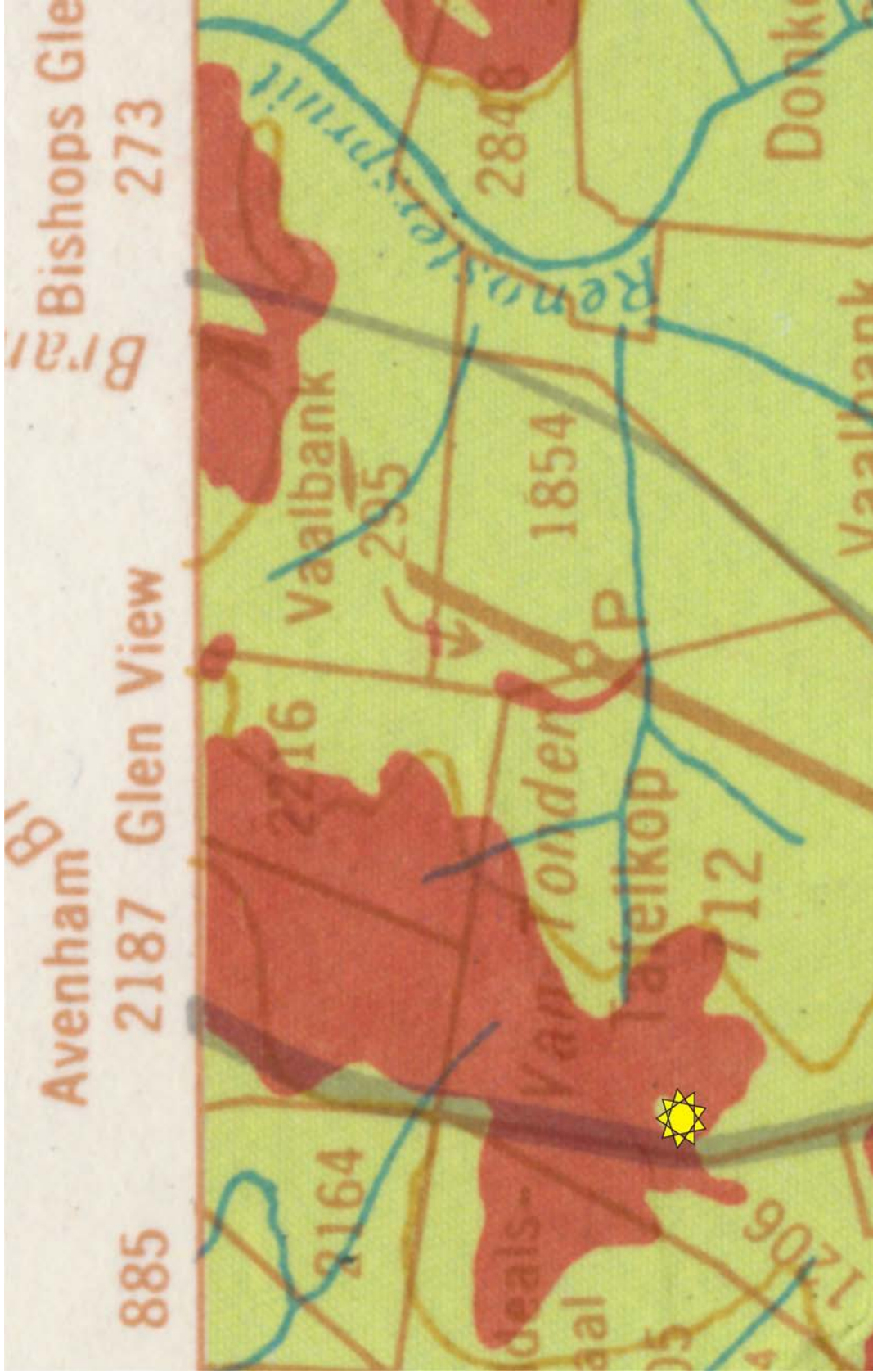


Figure 3. According to the 1:250 000 scale geological map 2926 Bloemfontein, the development footprint and surrounds are underlain by Jurassic igneous intrusions in the form of dolerite sills and dykes (red areas, marked *Jd* on map).



Figure 4. The site is severely degraded and underlain by paleontologically insignificant dolerite that is capped by a veneer of Quaternary overburden comprising brown to red calcareous soils.