

# Exemption from further Archaeological and Palaeontological Impact Assessment: proposed establishment of the 0.8 ha Steraine Chicken Layer and 0.07 ha Packing Facility near Kroonstad, FS Province.

Report prepared by  
Palaeo Field Services, PO Box 38806 Langenhoven Park 9330.  
03 / 05 / 2019

Site: Farm Kaialama 1387

Map Ref.: 1:50 000 topographical map 2727 AD Heuningspruit

1:250 000 geological map 2726 Kroonstad

Site Coordinates: 27°33'11.96"S 27°26'36.58"E

The application relates to a proposed establishment of 0.8 ha Chicken Layer and 0.07 ha packing Facility located on the farm Kaialama 1387 near Kroonstad, FS Province (**Fig. 1 & 2**).

The site is underlain by geologically recent and well-developed aeolian sand that has been severely degraded by previous and ongoing farming activities (**Fig. 2 & 3**).

The archaeological footprint in the region is primarily dominated by Late Iron Age stone wall complexes. Maggs' classification of settlement patterns (1976) provided the first major contribution to our knowledge of the Iron Age prehistory of the Free State. Type Z settlements are sparsely scattered over a relatively limited area in the vicinity of Doringberg between Winburg and Ventersburg and to the northwest along the Vals River in the districts of Kroonstad and Bothaville, including a few sites on the Renoster River, east of Viljoenskroon (Walton 1956; Maggs 1976; Dreyer 1997). Stone enclosures are found on and around dolerite koppies along the Vals river valley near Kroonstad between Bothaville and Lindley.

Given the scale of substrate disturbance within the study area, potential impact on archaeological or palaeontological remains within the development footprint is considered to be highly negligible and it is recommended that the planned development is exempt from a full Phase 1 Archaeological and Palaeontological Impact Assessment.

## References

- Dreyer J. 1992. The Iron Age Archaeology of Doornpoort, Winburg, Orange Free state. *Navorsinge van die Nasionale Museum Bloemfontein* 8(7): 262-390.
- Johnson, M.R. *et. al.* 2006. Sedimentary Rocks of the Karoo Supergroup. In: M.R. Johnson, *et. al.* (eds). *The Geology of South Africa*. Geological Society of South Africa.
- Maggs, T.C. 1976. Iron Age communities of the southern Highveld. *Occasional Papers of the Natal Museum* No. 2.
- Walton, J. 1965. Early Ghoya Settlements in the Orange Free State. *Memoirs of the National Museum* 2.

### Specialist Info

Lloyd Rossouw matriculated at Robertson High School in the Western Cape and obtained his Honours in Archaeology at the University of Stellenbosch where he gained wide-ranging fieldwork experience by participating in Historical and Stone Age archaeological excavations (Stellenbosch & Franschhoek built environment, farmsteads, Klasies River Mouth) as well as rock art surveys (Cederberg Mountains). He received training in mammalian osteology and Quaternary palaeontology at the Bernard Price Institute of Palaeontology (Wits), as well as instruction in human anatomy at Duke University in Durham, North Carolina, USA, and participated in multiple field surveys and excavations in the south-western Cape (Cango Valley, Hoedjiespunt, Zwartklip, Basaanskop, Langebaanweg), the central interior (northern Karoo, central Makgadikgadi, Orange, Vaal, Modder, Vet and Sand River basins), Laetoli, Tanzania, as well as at the Florisian and Cornelian Land Mammal Type sites at Florisbad and Cornelia-Uitzoek in the Free State. He gained his PhD-degree at the University of the Free State, specializing in plant microfossil research and palaeoenvironmental reconstruction of Stone Age environments in Southern Africa. He is currently Head of the Archaeology Department at the National Museum in Bloemfontein, research associate and part-time lecturer in the Department of Plant Sciences (UFS) as well as a guest lecturer in the Department of Basic Medical Sciences (UFS). He is a member of the Association for Southern African Professional Archaeologists (ASAPA) and the Palaeontological Society of Southern Africa (PSSA).

### 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 and have no interest in secondary or downstream developments as a result of the authorization of this project.

Yours truly,

A handwritten signature in black ink, appearing to read 'L Rossouw', with a stylized, cursive script.

Dr L Rossouw

PO PO Box 38806 Langenhoven Park 9330



**Figure 1. Aerial view, position (above) and layout (below) of the proposed chicken layer (red square) and packing facility (green square).**



Figure 2. Portion of 1:250 000 scale geological map 2726 Kroonstad shows that although the impact area (white star) is located within the Permian Eccca Group (Karoo Supergroup) it is underlain by well-developed, late Quaternary aeolian sand (Qs).