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19 October 2013

Mr Koot Raubenheimer Maxim Planning Solutions (Pty) Ltd P.O.Box 6848 FLAMWOOD 2572

E-Mail: koot@maxim.co.za

Dear Mr Raubenheimer,

## Palaeontological Scoping Report – Proposed Alabama Township Development

As requested, herewith a letter of exemption with regard to the palaeontological aspect of environmental management relevant to the development of Alabama Extensions 4 and 5 Townships, Klerksdorp (Matlosana), Northwest Province.

As is evident from my report the proposed development should not have any impact on palaeontological heritage, but have included a mitigation clause.

Yours sincerely

Bruce Rubidge PhD, FGSSA, FRSSA, Pr Sci Nat

#### PALAEONTOLOGICAL SCOPING REPORT -

## **EXECUTIVE SUMMARY**

This is a scoping Palaeontological Impact Assessment report on the proposed Alabama Extensions 4 and 5 Township developments at Klerksdorp (Matlosana), Northwest Province. The entire area is underlain by igneous rocks of the Precambrian Ventersdorp Supergroup. Although not indicated on the geological map there is a possibility that Quaternary surficial deposits could be present.

In my opinion this development will not negatively affect palaeontological heritage. If, in the extremely unlikely event that fossils are exposed in superficial deposits in the process of development activities, a qualified palaeontologist must be contacted to assess the exposure for fossils so that the necessary rescue operations are implemented.

#### INTRODUCTION

The proposed township proclamation and development site is on the remainder of Portion 1 of the Farm Townlands of Klerksdorp 424IP, Alabama Extensions 4 and 5, west of Klerksdorp (Matlosana), approximately 249 hectares in size. It is situated west of the existing Alabama Township.

Maxim Planning Solutions (Pty) Ltd requested several specialist investigations to be done, including this Paleontological Assessment. The specialist inputs are required in support of a Phase 1 Heritage Impact Assessment for the development on the Remaining Extent of Portion 1 of Townlands of Klerksdorp 424IP and the subsequent comments received in response to this study from the South African Heritage Resources Agency (Ref 16/1/4/10 Alabama Ext 4 dated 20 May 2013) as well as in support of an Environmental Impact Assessment (EIA) required for several proposed listed activities in terms of the National Environmental Management Act (Act No. 62 of 2008) (NEMA).

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a. Specialist Expertise Palaeontology/ Stratigraphy/ Geology

> 19 October 2013 Date:

b. Declaration of Independence

Signature:

1. Developer:

6.1. RB

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2. Consultant:

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Report Date

19 October 2013

## BACKGROUND INFORMATION

The proposed Alabama Extensions 4 and 5 Township development is situated west of Klerksdorp (Matlosana), Northwest Province (Figure 1).

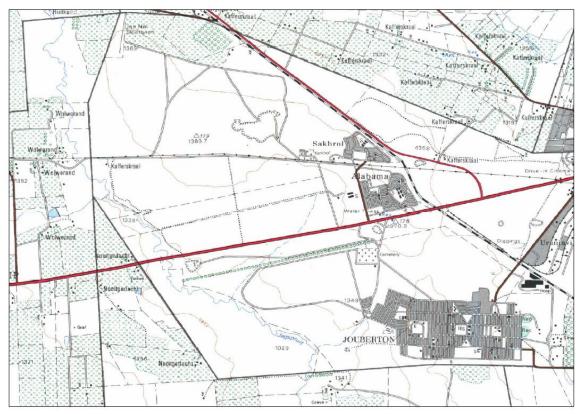


Figure 1: Topographic map of the study area (1:50 000 scale)

## DESCRIPTION OF PROPERTY

The proposed development area (of around 249ha) is situated along the N12 road west of Klerksdorp located on the Remaining Extent of Portion 1 of the farm Townlands of Klerksdorp 424IP near Klerksdorp in the Northwest Province. The development (Alabama Extensions 4 and 5) is located close to the existing Alabama and Jouberton townships. The topography of the area is very flat and consists mainly of rolling grass veld.

The Jagspruit forms the western boundary of the development, and an ESKOM Powerline forms the northern boundary. The area, which has been disturbed by agricultural activities, is very flat and there are no rock outcrops or hills.

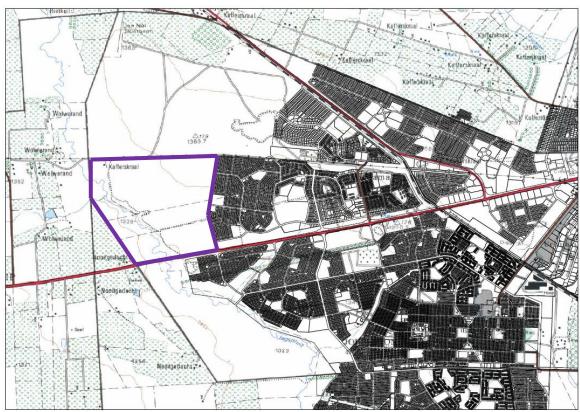


Figure 2: 1:50 000 topographic map showing the extent of the proposed township development in purple.

#### GEOLOGICAL SETTING

Following the 1:250 000 Geological Map Series of the Republic of South Africa - Sheet 2626 West-Rand, (1986) the area for the proposed development is underlain by amygdaloidal lava, agglomerate & tuff of the Rietgat Formation, of the Platberg Group, Ventersdorp Supergroup. These rocks are of Precambrian age and are of igneous origin (Figure 3).

## BACKGROUND TO PALAEONTOLOGY OF STUDY AREA

As the rocks of the Precambrian Ventersdorp Supergroup are of igneous origin there is no possibility of fossils being present. The geological map does not indicate the presence of alluvial deposits, and although the study area is covered by grassveld it has been affected by agricultural development.

## RECOMMENDATION

In my opinion this development will not negatively affect palaeontological heritage and suggest that, from a paleontological perspective, this development should proceed. If, in the extremely unlikely event that fossils are exposed in possible overlying unconsolidated Quaternary deposits, it will create a unique opportunity to explore the area for fossils.

It is thus recommended that, should fossils be exposed, a qualified palaeontologist be contacted to assess the exposure for fossils so that the necessary rescue operations are implemented. Depending on the nature of the fossils discovered, this could entail excavation and removal to a registered palaeontological museum collection. A list of professional palaeontologists is available from South African Heritage Resources Agency (SAHRA).

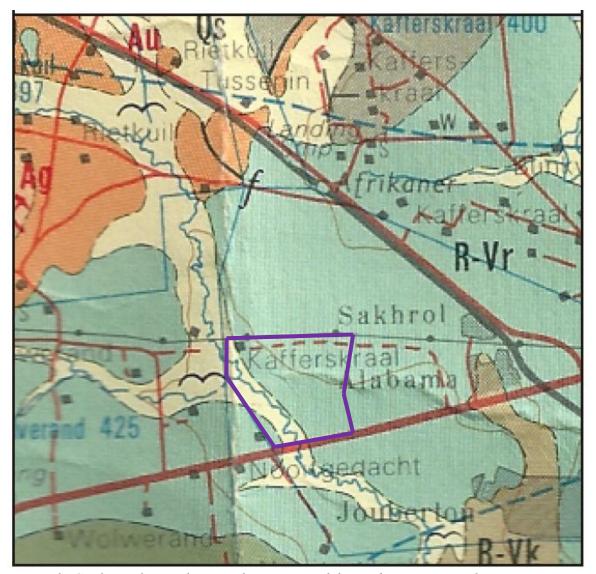


Figure 3: Geological map showing the position of the study area in purple

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