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03 May 2022

Dr Ragna Redelstorff  
Heritage Officer Archaeology, Palaeontology & Meteorites Unit  
South African Heritage Resources Agency  
111 Harrington Street  
Cape Town 8001

Dear Dr Redelstorff

**RE: Request for Exemption of any Palaeontological Impact Assessment for the  
proposed Tharisa Waste Rock Dumps, near the town of Marikana in the Bojanala  
District Municipality and Rustenburg Local Municipality  
within the North West Province  
SLR Project Reference: 720.20002.00058**

In my capacity as a professional palaeontologist, I am requesting exemption for palaeontological impact assessment in terms of the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) which requires that the proposed development must be preceded by the relevant impact assessment, in this case for palaeontology.

Tharisa Minerals (Pty) Ltd is an opencast mining operation that produces chrome and platinum group metals (PGM) concentrate. The opencast mine is located on the farms 342 JQ and Elandsdrift 467 JQ. Tharisa holds existing environmental authorisations and licenses under the Mineral and Petroleum Resources Development Act, 28 of 2002 (MPRDA), the National Environmental Management Act, 107 of 1998 (NEMA) and the National Water Act, 36 of 1998 (NWA).

Tharisa mine has been operational since 2008. Mining is undertaken in two mining sections, namely the East Mine and West Mine. The two mining sections are separated by the perennial Sterkstroom River and the D1325 (Marikana Road). Key existing mine infrastructure includes haul roads, run-of mine, a concentrator complex, various product stockpiles, topsoil stockpiles, waste rock dumps (WRDs), tailings storage

facilities (TSF) and supporting infrastructure such as offices, workshops, change house and access control facilities.

As part of its on-going mine planning, Tharisa has identified the need for additional waste rock storage on site. In this regard, Tharisa is proposing the following:

- the expansion of the existing and approved Far West WRD 1 by a footprint of 109 ha. The expanded area will be referred to as the West Above Ground (OG) WRD. Portions of the West OG WRD will be located on backfilled areas of the West Pit; and
- the establishment of a waste rock dump (referred to as the East OG WRD) on backfilled portions of the East Pit. The proposed East OG WRD will cover an area of approximately 72 ha.

The proposed additional waste rocks dumps shown in Fig. 1 are outlined in lilac and the whole mine area is shown within the yellow rectangles (Figs 2, 3). The northern part of the mine property is on the Mathlagame Norite (Vcm) and the southern part on the Kolobeng Norite (Vn), both of the Rustenburg Layered Suite, Bushveld Igneous Complex (Fig. 2; Cawthorn et al., 2006). These are intrusive volcanic rocks (igneous) so do not preserve any fossils at all. This is confirmed by the SAHRIS palaeosensitivity map grey shading (Fig. 3). Therefore, we request exemption from SAHRA for any further Palaeontological Impact Assessment.

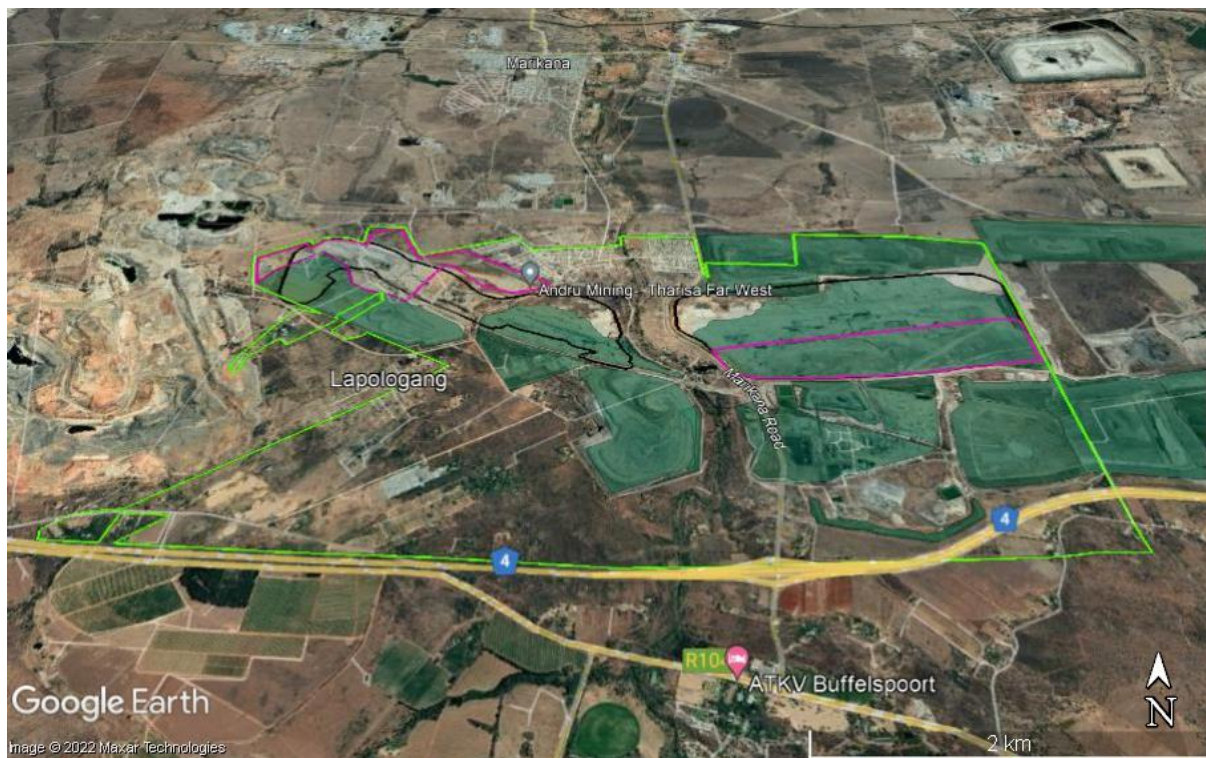


Figure 1: Annotated Google Earth map for the Tharisa Minerals project. Areas of relevance are outlined in lilac, the additional waste rock dumps. Mine boundary is indicated by the green line.



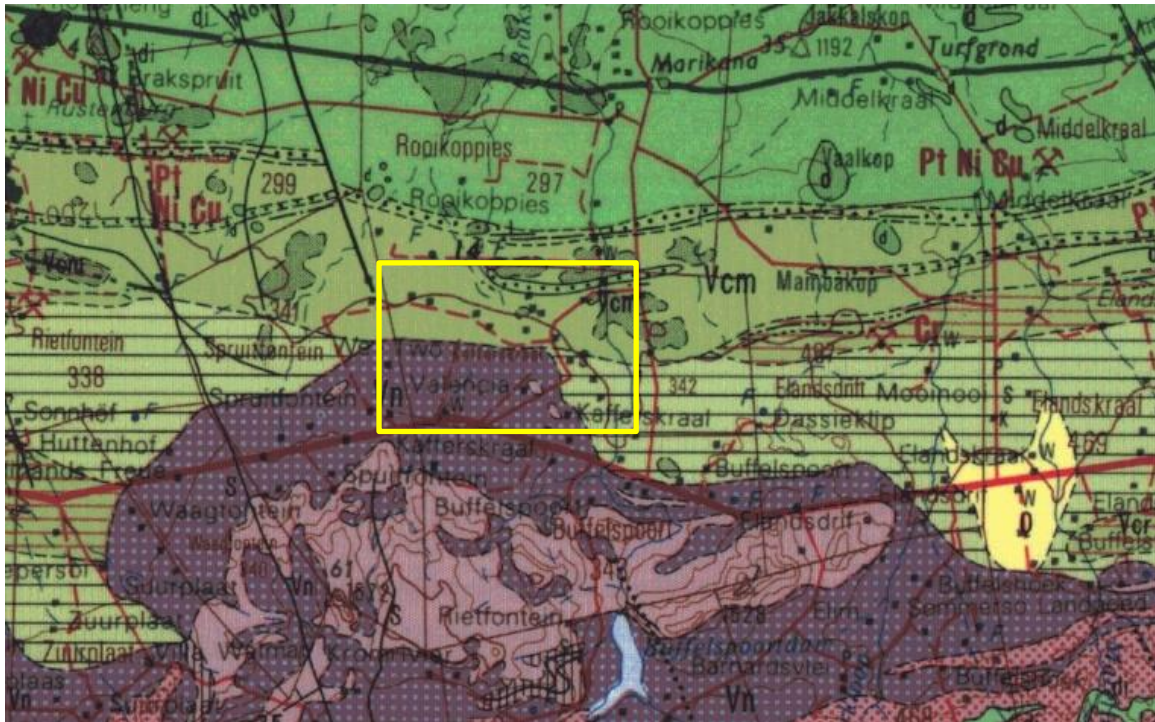


Figure 2: Geological map of the area around the Tharisa Mines. The location of the proposed project is indicated within the yellow rectangle. Abbreviations of the rock types are: Vcm = Mathlagame Norite; Vn = Kolobeng Norite. Map enlarged from the Geological Survey 1: 250 000 map 2526 Rustenburg.

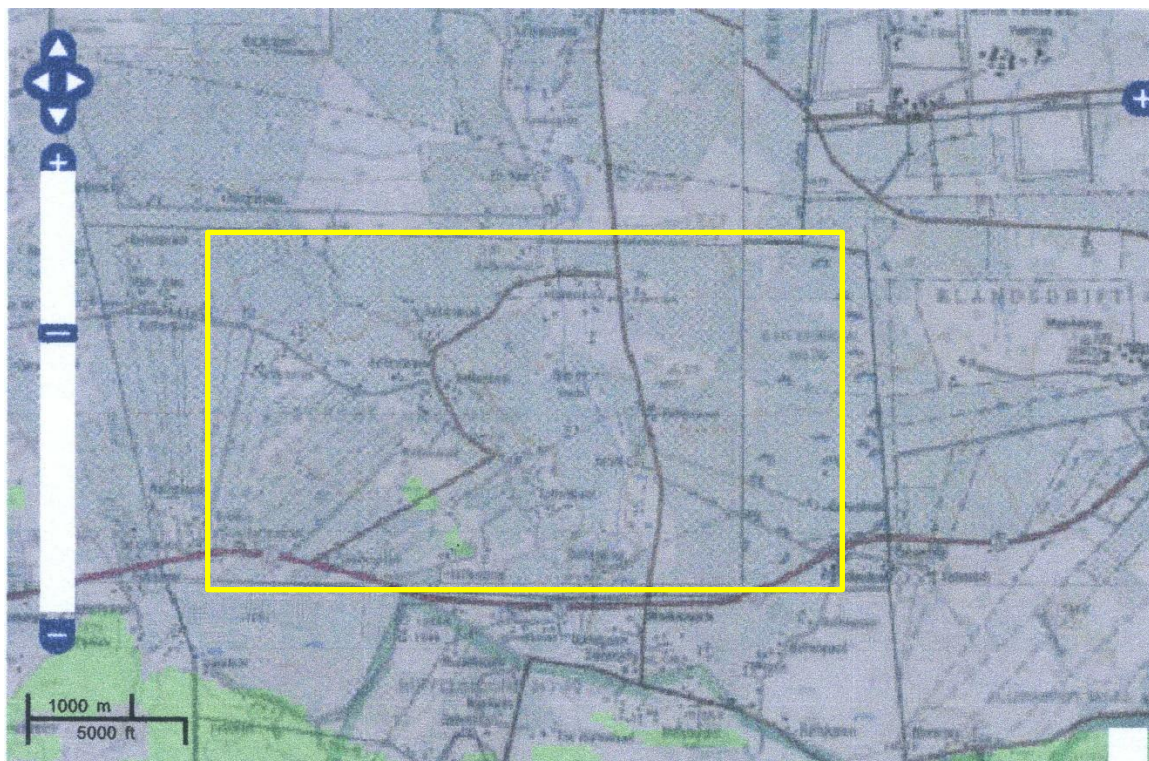


Figure 3: SAHRIS palaeosensitivity map for the site for the proposed Additional Waste Rock dumps for Tharisa mines shown within the yellow rectangle. Background colours indicate the following degrees of sensitivity: red = very highly sensitive; orange/yellow = high; green = moderate; blue = low; grey = insignificant/zero.

Yours faithfully



Prof Marion Bamford  
Palaeobotanist; PhD (Wits 1990)

**Reference cited:**

Cawthorn, R.G., Eales, H.V., Walraven, F., Uken, R., Watkeys, M.K., 2006. The Bushveld Complex. In: Johnson, M.R., Anhaeusser, C.R. and Thomas, R.J., (Eds). The Geology of South Africa. Geological Society of South Africa, Johannesburg / Council for Geoscience, Pretoria. pp 261-281.

**Declaration of Independence**

This letter has been compiled by Professor Marion Bamford, of the University of the Witwatersrand, sub-contracted by SLR Consulting (South Africa) (Pty) Ltd, South Africa. The views expressed in this report are entirely those of the author and no other interest was displayed during the decision making process for the Project.

Specialist: Prof Marion Bamford



Signature: