

100 YEARS OF THE MERENSKY REEF MINERALS, METALS AND MINING

15-23 AUGUST 2024



Centenary Field Trip August 15-18, 2024: Eastern Limb of the Bushveld Complex

Fieldtrip leader: Dr Roger Scoon

The discovery of economic platinum mineralization by Hans Merensky and his Lydenburg Platinum Syndicate at Mooihoek, on 15th August 1924, is one of the most significant geological and mining events in South Africa. This initiated a “Platinum Rush” which led to discovery of three additional mineralized pipes and the Merensky Reef. The field excursion will include the following sites (dependent on permissions from mining companies):

- Famous geosites: Dunite Pipes (Driekop Mooihoek, Onverwacht); Merensky Reef, UG1 and UG2 chromitites; Discordant IRUPs
- Underground visit to historical workings on the Merensky Reef at Winnaarshoek
- Cultural sites: Botshabelo Mission (Hans Merensky’ place of birth, in 1871); Battle of Sekhukhune; Tsjate Cultural Centre



Historical decline on the Merensky Reef (brown weathered pyroxenite with a gossan in the upper part), Winnaarshoek (left); Glory hole at the Onverwacht Pipe showing an apophysis of “hortonolite dunite” (dark brown) within the “normal” dunite which contains magnesite veins in reticulate joints (scale provided by the late Morris Viljoen)

PRELIMINARY ITINERARY

THURSDAY, 15 August

- a. **Depart Johannesburg International Airport** (10.00 am).
- b. Drive via Middleburg; **Botshabelo Mission (lunch)**; Rooiberg Group; Loskop Dam (next to road); Views of Steelpoort Valley; De Grooteboom (marginal rocks next to road); View site at Steelpoort (time permitting)

FRIDAY, 16 August (Depart 8.30 am)

- a. **Onverwacht Pipe** (9 am), Modikwe mine property (this may require a 1 km walk).
- b. **Mooihoek Pipe** (11.30 am), surface outcrops in the village.
- c. **Driekop Pipe** (1 pm), short underground visit to the adit if possible and **lunch** in the secure mine site.
- d. **Circular road trip** (2-5 pm): Maandagshoek (outcrop of MR by road); Spitskop (IRUP next to road); View of Kennedys' Vale; Tweefontein (discordant body next to road).

SATURDAY, 17 August (Depart 8.30 am)

- a. **Winnaarshoek** (9.30 am), surface outcrops (1 km walk) and historical workings (supervised by mine personnel), Marula Mine property.
- b. **Marula Mine** (12 am), drill-core (Winnaarshoek Pipe; MR; UG2) and **lunch** in the secure mine site.
- c. **Tsjate Cultural Centre** (2 pm), free entrance; Memorial to Battle of Sekhukhune;
- e. **Hackney** (3 pm) UG2 surface outcrop, Twickenham mine.
- d. **Twyfelaar Pipe** (4 pm), view and magnesite quarry (lower zone) (time permitting)

SUNDAY, 18 August (Depart 8.30 am)

- a. **Dwarsrivier National Monument** (9 am), UG1 Chromitite/anorthosite.
- b. **Magnetite Heights** (12 am), Main Magnetite Layer (time permitting); **lunch** (Ultra City, Middleburg)
- c. **Return Johannesburg International Airport** (5 pm).