

Q. POTBERG AREA

Field Note Q2b. Geology – Gravel terraces



Gravel terrace south of the Breede River.

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There are several gravel terraces on either side of the Breede River, of Tertiary and Quaternary ages (Figures 1 to 4). Some terraces are small, and others are quite extensive.



Figure 1. Satellite image of the Potberg (yellow arrow) – Breede River (white arrow) area.

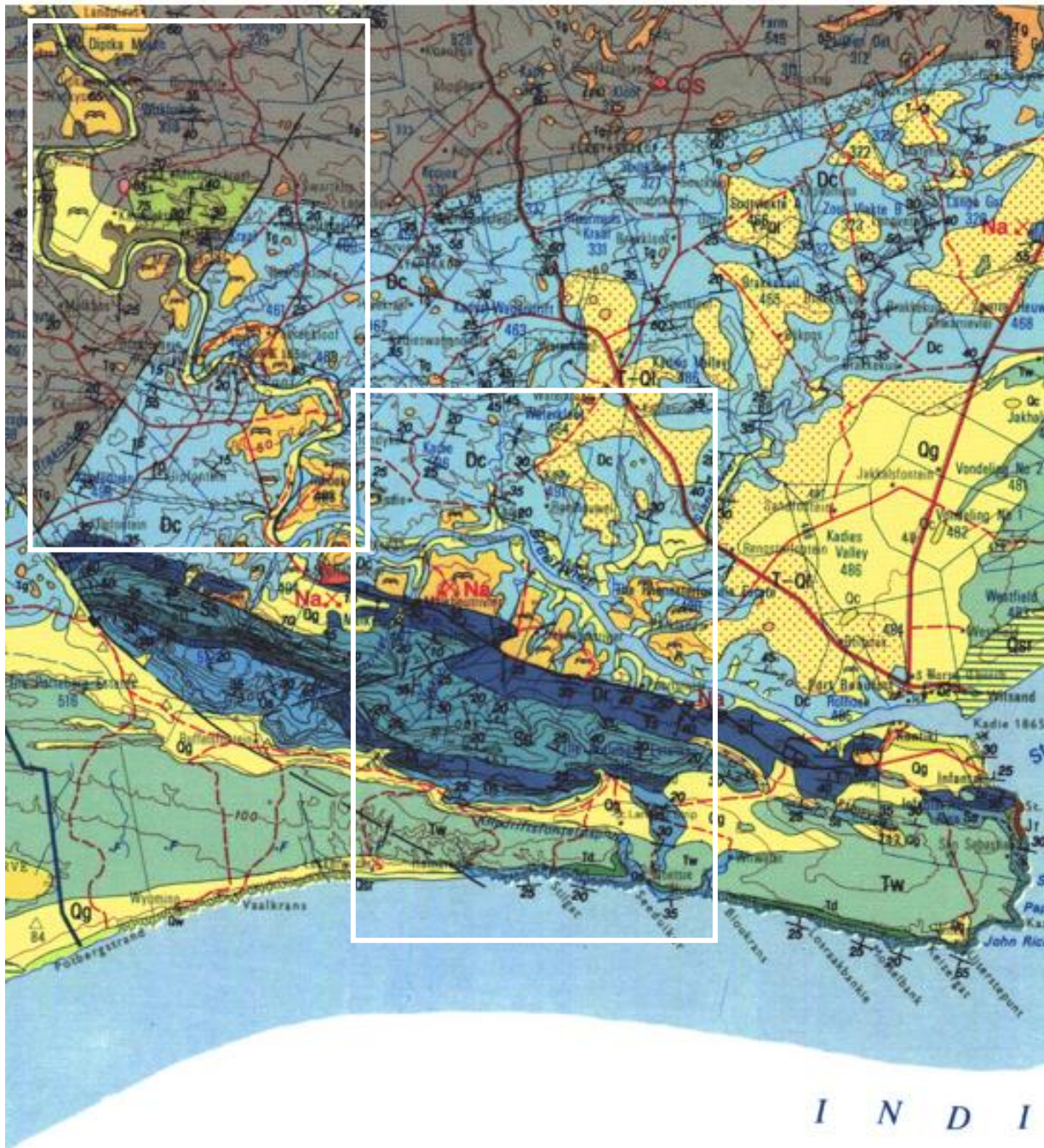


Figure 2. Geology map (3420 Riversdale Sheet, 1993) of the Potberg – Breede River area showing the distribution of gravel terraces along the Breede River. Boxes indicate the confines of the geology maps in Figures 3 and 4. The symbol below denotes gravel terrace:



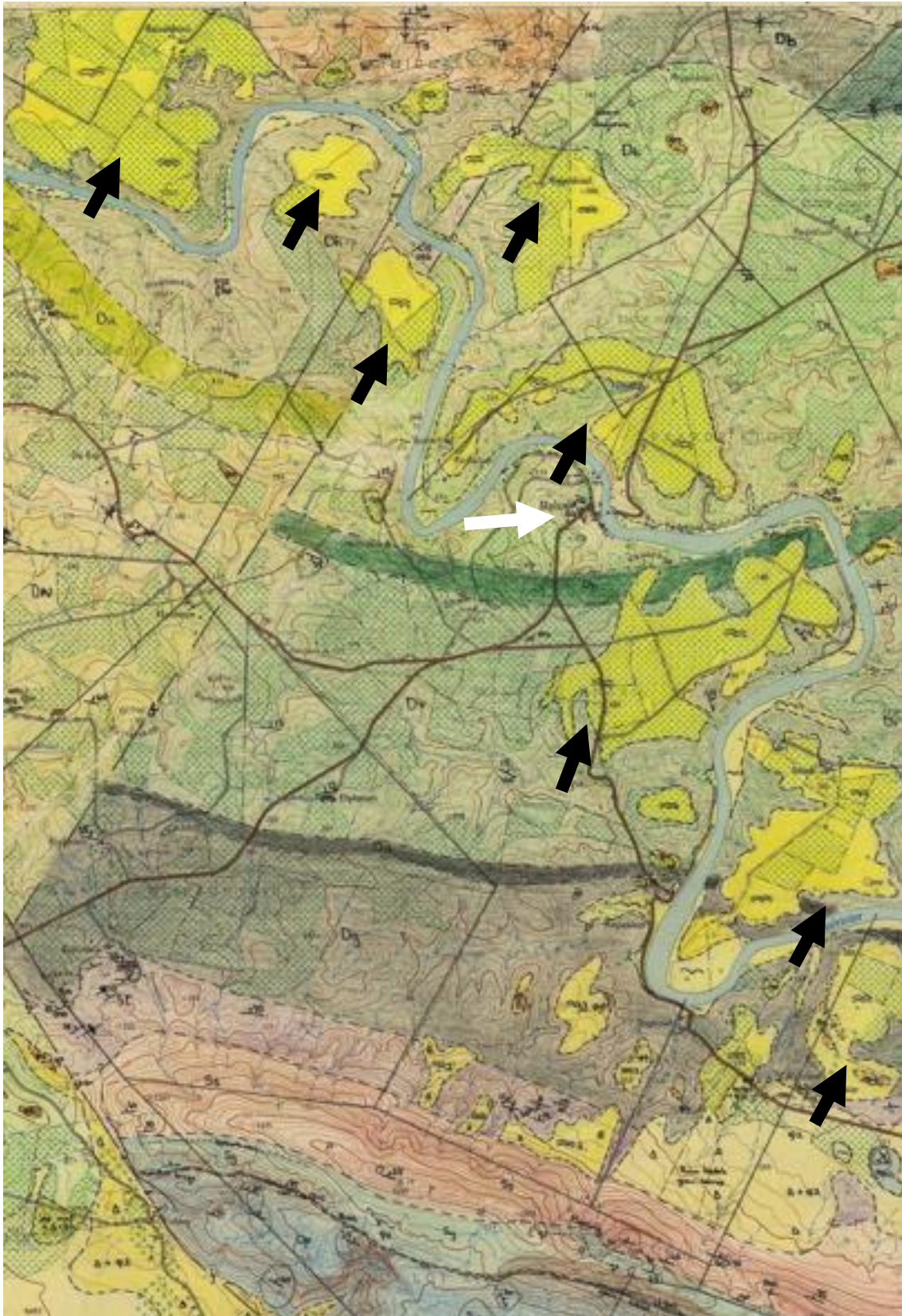


Figure 3. Geology map of J Malan, 1985, of the Breede River area NW and SE of Malgas (white arrow), showing the locations of gravel terraces along the river (black arrows). The symbol below denotes gravel terrace:





Figure 4. Geology map of J Malan, 1985, of the Breede River east of Malgas, showing the locations of gravel terraces along the river (black arrows). The symbol below denotes gravel terrace:



The boulders and pebbles which comprise the gravel are mostly from the rocks of the Table Mountain Group Formations, consisting of sandstone, siltstone, quartzite and quartz, ranging in size up to over 0.5 m in diameter (Figure 5).



Figure 5. Top and bottom - the terraces comprise boulders and pebbles of various sizes.

The terraces vary in size from 0.5² to 5 km². They are horizontal or slightly inclined towards the Breede River (Figures 6 and 7).



Figure 6. Views on horizontal gravel terraces (arrows).



Figure 7. Views on; top – a horizontal gravel terrace (arrow); bottom – a gravel terrace slightly inclined towards the river.

The terraces elevations range from a few meters to about 90 m above the river (Figure 8).



Figure 8. Terraces elevations: Top – 10 m above the river; bottom – 50 m above the river.

Farmers are using most terraces for crops, vineyards and groves (Figures 9 to 14).

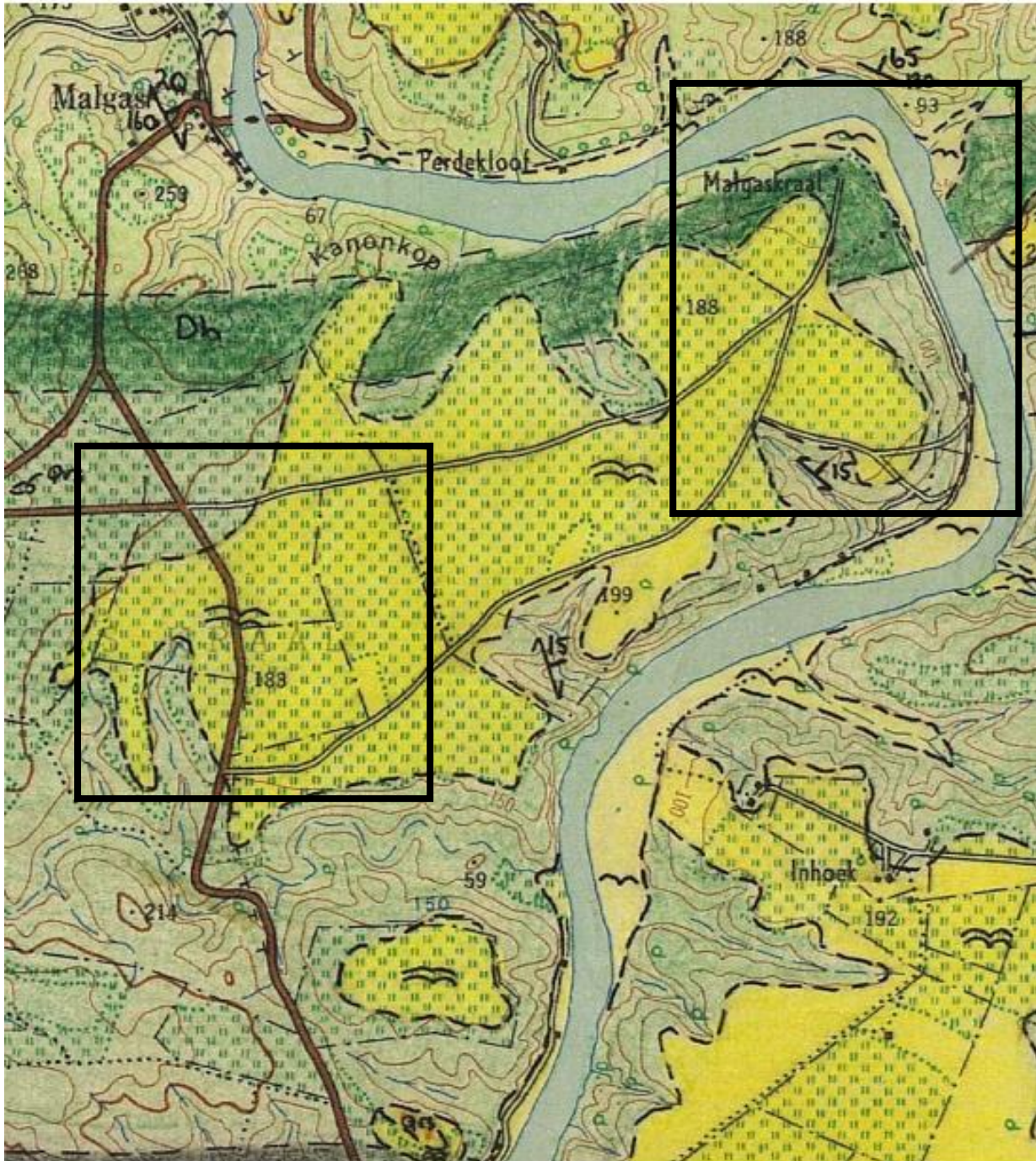


Figure 9. Gravel terrace close to Malgas – geology map (J Malan, 1984). Boxes show the approximate confines of the topography maps in Figures 10 and 11.



Figure 10. The southwest part of a gravel terrace close to Malgas. Top – topography map. Bottom – crops. Potberg at the background.



Figure 11. The northeast part of a gravel terrace close to Malgas. Top – topography map. Bottom – vineyards. Potberg at the background.



Figure 13. Gravel terrace between Malgas and Infanta on the farm Milk Wood River, ~50 m above sealevel– topography map.



Figure 14. Gravel terrace between Malgas and Infanta on the farm Milk Wood River, ~50 m above sealevel – satellite image. Most of the terrace is under olives.

Ferricrete is abundant on the terraces (Figures 15 and 16).



Figure 15. Ferricrete forms: top – ferruginised gravel. Bottom – ferricrete nodules (the small, black pebbles).



Figure 16. Ferricrete forms: top – massive ferricrete. Bottom – ferricrete conglomerate.

See also Chapter D for a Field Note on the Breede River gravel terraces ferricretes.