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Description of a thin section of basalt from the Wesley Vale borehole

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The following are descriptions of thin sections of basalt from the Wesley Vale borehole. The first is from near the surface, the second from deep in the borehole.

1. In thin section the rock is rather fine grained, consisting of thin elongated laths of plagioclase up to 0.3 mm long and prisms of colourless or faintly purple augite in a matrix of pale brown glass. Magnetite is fairly common in small rods and aggregates. Euhedral phenocrysts of olivine altered to serpentine with rims of iddingsite are very common.

   Chlorite is plentiful as a lining to irregular cavities filled with zeolite.

2. In thin section the rock is fine, although coarser than the foregoing. The texture is ophitic with laths of felspar partly enclosed in pale purplish titan augite. Olivine is prominent in larger crystals up to 1 mm in length, largely altered to olive green bowlingite. Magnetite is plentiful in rods and aggregates and occasional larger crystals up to0.03 mm. There are also occasional patches possibly zeolitic of fine cryptocrystalline material, and a little dark interstitial glass.

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