

mountain, overlooking the valley of Pokomoonshine Brook, are not unlike many of the iron-bearing beds of the Silurian, and they may possibly be an outlier of that formation, but it seems more probable that they are Cambro-Silurian and the equivalents of the similar beds described by Mr. Ellis and others in Gloucester county. The point where they occur being in a dense forest and the exposures therefore few, nothing definite either as to their thickness or relations could be determined. Their dip, where observed, was N. 20 W. $> 80^\circ$. Beyond these beds, but at a much lower level, there are, in the valley of the brook last referred to, ledges of very hard greenish-grey vesicular rock, containing dark-brown prismatic crystals of augite, as well as beds of white weathering felspathic quartzite; these being in turn overlapped by the ribbanded calcareous slates which here represent the base of the Silurian system.

Contact of
systems.

West of Oak Mountain this belt of rock becomes less conspicuous, both it and the associated syenite sinking out of view beneath the low and artificially flooded area along the upper course of El River. Boulders, however, which are evidently derived from it, and consist chiefly of extremely coarse and highly crystalline amygdaloid, of bright-green, red and purple colors, and contain much chlorite and epidote, are thickly scattered over the country to the south, more particularly along the Dinnen road, where the latter traverses Pokowagamis settlement. Near Kirkland post-office in South Richmond similar beds are seen *in situ*, consisting in part of amygdaloidal diorites, but chiefly of a coarse agglomerate, in which both pebbles and paste are alike composed of chlorite, epidote and vesicular diorite. Here also their relations to the Silurian are well exhibited, they being directly overlaid by the ribbanded calcareous slates, while only a short distance to the westward are the coarse calcareous conglomerates of Bull Creek, through which fragments derived from these amygdaloids are abundantly distributed.

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Contact of
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Eastward of Oak Mountain the relations of the two systems of rocks are equally clear. Their unconformable contact at O'Donnell's crossing near Debec, has already been described. Here the supposed Cambro-Silurian rocks consist of flinty felsites and of very hard white-weathering felspathic quartzites, together with beds of amygdaloid, both of which are similar to those of Pokomoonshine Brook, and are covered by a Silurian conglomerate containing fragments derived from these rocks; and further east similar felsites outcrop on the branch railway leading into Woodstock; but in approaching the last named town these are less clearly seen, while beds more like those of Oak Mountain again come prominently into view. Along the west bank of the St. John River they are exposed at intervals all the way from Bull's Creek,

Woodstock.