occur. both well characterized and blended with each other. The Syenite is often divided by joints so as almost to appear stratified, and to give its perpendicular walls the semblance of artificial construction. The gneiss is found both horizontal, and displaced by the intrusion of trap. Associated with these are also serpentine, conglomerates & porphyry. Almost all these rocks pass by insensible gradations into one another, and their relative positions are excessively complicated.

There appears to be a very great resemblance between the geology of this part of the Cascades, and that of the Shasta Mountains as described by Wilkes in his memoir on Western America.

The rocks in place on the Columbia between the Chelam and the mouth of the Okinakane was Syenite, varying somewhat in character. It was frequently intersected with large veins of felspar. In crossing from Fort Okinagan to the forks of the Methow, the Syenite changed to granite with white and flesh colored felspar. The bend of the Columbia at Fort Okinagan seems to be the northern limit of basalt to the east side of the river, as the Dalles is on the west. The prevailing rocks on the Okinakane as far up as its forks, were Syenite and gneiss; above that point granite and gneiss overlaid with coarse conglomerate containing granite

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