

angular or subangular, consist mainly of feldspathic porphyrites, and on fresh surfaces are often indistinguishable from the matrix, although plainly outlined where the rock is weathered.

In the Salmon valley, the greenstones are usually sheared and pass into coarse greenish and greyish schists, the lines of schistosity being roughly parallel to the eastern edge of the Coast Range granitic batholith and dipping towards it at a high angle. The shearing is irregular, some areas being only slightly affected, and usually, but not invariably, increases in intensity approaching the granite.

### NASS FORMATION.

The rocks of the Nass formation overlie the Bear River greenstone. They occur on the northern part of Slate mountain and extend northeasterly in a comparatively narrow band west of Long lake to the eastern shoulder of Mt. Dillsworth. A second area, separated from the first by the erosion of the valley of the East fork of Cascade river, is exposed east of Slate mountain in the western slopes of Bear River ridge. This area is largely buried in snow and ice and its upper contact with the greenstone was not seen. A third area, tentatively referred to the Nass formation, occurs bordering the Coast Range granitic rocks west of the Salmon glacier.

The rocks of the Nass formation are mainly dark argillites, always more or less altered and in places cleaved into slates. On Slate mountain they are fine-grained and very uniform in composition throughout. They rest on a massive-appearing, dark-coloured, volcanic breccia, below which are the greenish schistose fragmentals of the Bear River formation. On the western slope of Bear River ridge and north of Long lake, the argillites are associated with greenish and greyish beds and bands of tuffaceous sandstone. The material in these consists mostly of angular quartz and feldspar grains with fragments of slate and calcite.

In the area west of the Salmon glacier they consist of hard, siliceous, dark and striped slaty rocks resembling quartzites in places.

The Nass argillites and associated granular and fragmental beds occupy the Long Lake depression, and rise to the south in Slate mountain and the western slope of Bear River ridge. They have been folded in the mountain-making movements, and in places crushed into the underlying Bear River greenstones. The dips and strikes, while irregular, indicate a double fold trending in a north-northwest direction. The formation extends northwards beyond the district examined and its thickness was not ascertained.