

The Pine-root river, which was ascended, empties into the west side of this bay two miles from the entrance. The mouth is hidden in a grassy flat and the valley through which it flows is not a prominent feature, as it is crooked and narrow. It drains three closely connected lakes at elevations estimated at 60, 65 and 75 feet respectively above Athapapuskow lake. The lower one is only about four miles from the mouth of the stream. Most of the fall occurs near the outlet from the lake where several cascades make a descent of forty feet. Lower down smaller rapids are met, but these are each not over five feet in height.

The rocks noted on the river are mainly at the several portages. Near the mouth the stream flows along the eastern face of a ridge of greenstone running with the strike, nearly due north and south and at several places on the faces of some of the more abrupt parts the rock is seen to be glaciated, the striae running down the valley. The rock showing at the foot of the lowest rapid is a black or dark green quartz-porphry. The particles of quartz are small and the matrix very fine grained. At the upper end of the rapid the rock is a dark quartzite-conglomerate with a few small pebbles of a bright red jasper. This band lies to the west of the quartz-porphry and the river crosses it again a short distance up. Irregular veins of a milk-white quartz appear on a boss of rock on the west side of the fall but they seem to be segregations and not fissure veins. At this portage a terrace of sand and gravel is crossed which is about fifteen feet above the water.

The strike of the rocks in this part of the valley is very nearly north-and-south, and the first two rapids cross and recross a band of conglomerate which to the north and south forms a distinct ridge. The stream cutting through this from the eastward leaves a small basin in which is a narrow lake. From the north-east corner of this lake to the larger one above, the rocks are all green schists striking along the course of the stream or about N. 20° E. and for most of the way the stream runs between high ridges of the schists. At the outlet from the lake the valley terminates and the water descends about forty feet in a series of cascades. A portage of $\frac{1}{4}$ mile on the east side passes over a ridge of greenstone and green schist striking N. 12° W.

The lake is not above two miles in length and scattered through it are several small islands lying in rows parallel to the strike of the schists. At the north-east corner a small round lake is separated from the main body by a ridge of dark-green rock, partly schistose, over which the water of the upward continuation of the stream flows, lakes.