

Peace and Athabasca river-basins to the east of the Rocky Mountains, enables the characters of glacial evidence to be defined further north, and has aided in the decision of some theoretical points referred to in the sequel. Most of the facts observed to the west of the Rocky Mountains resemble so closely those previously described for the regions south and east of this that they do not require lengthened notice. The southward or south-eastward passage of glacier-ice in the valley of Babine Lake is indicated by glacial grooving, while the valley of the Skeena has formed a main channel of discharge of glacier-ice toward the coast. In the mountains between the valley of this river and Babine Lake a somewhat irregular, but still, I believe, distinct terrace-flat was observed on the watershed at an elevation of 4300 feet. Its surface is strewn with water-rounded stones differing from those of the mountains of the vicinity. The region north-east of Stuart Lake, extending to McLeod's Lake and the Parsnip River at the base of the foot hills of the Rocky Mountains, is deeply drift-covered, the surface consisting either of Boulder-clay charged with erratics of varied origin, or terrace-flats formed by its rearrangement. This region lies to the north of and somewhat higher than the Nechaco basin, which is characterized by the white silts of a former paper*. The highest part of its surface crossed by the trail has an elevation of 2900 feet.

In the valley of the Misinchinca, flowing westward from the summit of the Pine pass of the Rocky Mountains, glaciation was observed in a few places parallel to the direction of the main depression. In the Pine-River valley, draining eastward and joining the Peace, no glaciated surfaces were seen—a circumstance which may arise from the comparatively soft character of the rocks.

Peace and Athabasca Basins.

In the comparatively level country drained by the Peace and Athabasca rivers, to the north-east of the mountains, underlain by unaltered rocks of Mesozoic and Tertiary age, the chief evidences of the glacial period are found in the distribution of erratics, and the existence of extensive "drift" deposits. In travelling eastward from the mountains by the Pine-River valley, a remarkable absence of such deposits is noted in that part of the valley which traverses the eastern foot hills; but at the Middle Forks the plateau, with an elevation of 1000 feet above the river, or 3000 feet above the sea, and at a distance of thirty miles from the indurated rocks of the mountains, is strewn with rounded pebbles of quartzite &c. from these rocks, though material of local origin preponderates. Eighteen miles further east, at the Lower Forks, the superficial deposits are much more important, covering the surface of the plateau to a considerable depth, and consisting of gravelly beds passing upwards into finer silty materials; the elevation of the plateau is here 2350 feet. In continuing eastward after passing over a summit of 3300 feet on the line followed, Laurentian boulders which must have come

* Quart. Journ. Geol. Soc. vol. xxxiv. p. 105.