

the upper or south end of it: we did not pass any bad rapids to-day. The mountains on both banks are high and the shores rocky. On the easterly side of the lake the mountains are composed of slate. The Indian trail from the mouth of Jordan Creek terminates at the entrance of a low, narrow valley, through which a stream flows. At the southwesterly end of this lake a large stream also falls into Kinbaskit Lake, at its southeasterly corner, and the Indians tell me there is coal a short distance up it. Dense woods covered the banks of river and mountain sides all the distance traveled to-day.

Monday, September 10th.—Left camp at 8 A. M., and immediately at the foot of lake we encountered rapids that extended the whole distance, 9 or 10 miles, traveled to-day. It might be possible at a high stage of water to get a steamer over these rapids with lines, but now they are too shallow, and there are many boulders which are not covered with water. The mountains on both sides of river are high and steep, and road building along the most of this portion of the valley would be expensive. I walked the whole distance traveled to-day, and the Indians ran, dropped and portaged the canoes over the rapids, &c., and were most of the day in the water.

Tuesday, September 11th.—Started at 7 A. M., with the intention of running to the Boat Encampment and getting the latitude, and then proceeding on to Wilson's Landing; but I unfortunately lost my protractor and was obliged to go back for it, which delayed me for two hours, and I did not reach the above place until 1 P. M. I therefore camped, as I was anxious to determine the latitude of this place accurately. The whole distance traveled to-day was a succession of rapids, and about  $\frac{1}{4}$  of a mile from the junction of the Columbia with the Canoe River is a cañon, through which the water runs at a very rapid rate. A bridge might be thrown across at this place. The Boat Encampment, which is on the angle formed by the Columbia and the river that flows from the Athabasca Pass, is a point I think destined, before very long, to become of some importance, as it is the confluence of three large rivers, and is the terminus of the Athabasca Pass. There is a good deal of level land all around it, and the mountains to the eastward are of a slate formation. The color of the water of the Canoe River is a dark, muddy brown; that of the Columbia River, and also of the large tributary flowing from the Athabasca Pass, of a dirty, whitish color. The junction of the Canoe with the Columbia River is the most northerly point of the latter.

Wednesday, September 12th.—Took the latitude of the Boat Encampment, which is  $52^{\circ} 7' 31''$  N., and then ran down the river about 25 miles and camped. The current of the river for the seven miles immediately below the Boat Encampment is very swift, and will probably average 7 miles per hour; there are several rapids on this portion of the river. For the next 18 miles the current is not so rapid, and will probably not average more than  $4\frac{1}{2}$  miles per hour.