

that point it is necessary to travel by steamer to the Indian village of Nootka, on Friendly cove, and take launch from there to the head of Head bay, a distance of about twenty miles, from which point there is a trail to the deposits, about one mile and a half in length.

The last mentioned is the most northerly deposit of magnetite on Vancouver island so far as at present known. There are deposits of bog-ore near the shore on the West arm of Quatsino sound.

There are two routes to Quatsino sound; one being by steamer from Victoria to Quatsino Landing, and by launch to the West arm, a distance of about ten miles; the other route being by steamer from Vancouver up the east coast of Vancouver island to Hardy bay, thence by trail across the island, a distance of about ten miles, to Coal harbour, on the West arm of the sound, distant about two miles from the iron-ore deposits. On the east side of Vancouver island deposits of iron ore, so far, have only been found in two localities; one on the Upper Qulniam lake, the other on the Kluanch river.

Upper Qulniam lake is situated about eighteen miles, in a straight line, from the village known as Campbell River, in a south-westerly direction, but by trail the distance is about twenty-five miles. The lake is the source of the Qulniam river, which is a tributary of the Campbell river, that flows into the strait of Georgia nearly opposite to Cape Mudge, the south end of Quadra island, distant about 120 miles in a north-westerly direction from the city of Vancouver. The occurrences of iron ore are reached by steamer from Vancouver to Campbell River Landing; thence by auto or wagon along the Strathcona Park highway seventeen miles to Gosseneck lake, where the main highway is left and a pack-trail followed for a distance of about five miles in a south-westerly direction to the north end of the Upper Qulniam lake; here a canoe is used to the south end of the lake, from which point a trail has been built for a distance of about half a mile to the mining camp.

The Kluanch River iron-ore deposits are situated about seven miles above the mouth of that river, which empties into the south-east end of Nimpkish lake, that drains through the Nimpkish river into Broughton strait at a point directly opposite to Alert bay. These deposits of iron ore are reached by steamer from Vancouver to Alert Bay Landing; thence by launch or canoe across Broughton strait to the property, a total distance from Alert bay of about twenty-seven miles, and from Vancouver of about 207 miles.

The Texada island iron-ore deposits are situated on the west side of that island about six miles from the north end, and about the same distance westerly from the village of Vananda, on the east coast, which is the port of call for all steamers plying between Vancouver and the island. Texada island is one of the largest islands situated between the mainland of British Columbia and Vancouver island in the strait of Georgia. Vananda is about seventy miles distant from Vancouver in a north-westerly direction. There is a good wagon-road connecting the village with the iron-ore deposits.

TOPOGRAPHY.

The following description of the topography of Vancouver island is copied from the report of Chas. H. Clapp, in Memoir No. 13, page 16, Geological Survey, Canada:—

"Vancouver island is a mountain range characterized by both flat-topped and ridge-like summits, and is the result of the mature dissection of an uplifted, subdued surface formed during a Tertiary erosion cycle acting on a heterogeneous group of deformed rocks. It lies to the west of the great marginal depression of North America, known as the Pacific Coast down-fold, and is one of the border ranges which characterize the western shore of the American continents. The Pacific Coast down-fold extends from the gulf of California to north of the Queen Charlotte islands. This down-fold is in part above sea-level in California, Oregon, and Wash-