

will complete the Similkameen triangulation via Okanagan lake to the Railway Belt triangulation by the Department of the Interior. This gives the first triangulation connection between the International boundary and the main line of the Canadian Pacific Railway, and furnishes the control for surveys in the Similkameen and Okanagan districts.

Considerable new topographic work is being undertaken. A control traverse is being run by S. C. McLean in southern Nova Scotia. A. G. Haultain will make a transit and micrometer eye-piece survey of Lake Athabaska on a scale of 4 miles to 1 inch. This survey will serve as the hub control for all exploratory surveys in the surrounding country. Mapping of the Sheep river area on a scale of 1 mile to 1 in. and a contour interval of 10 ft. will be done by E. E. Free-land. This includes townships 19 and 20, and the southern third of 21 in ranges 2 and 3 west of the fifth meridian, the area in which boring operations are being actively prosecuted. A. C. T. Sheppard will map in the Crowsnest district an area of 1,500 square miles lying between longitudes 114° and 115° and latitudes $49^{\circ} 30'$ and 50° . The mapping of 1,500 square miles lying between longitudes 118° and 119° and latitudes 51° and $51^{\circ} 30'$, and including the portion of the Columbia River valley between Revelstoke and Downie creek, as well as the valley of Jordan river will be done by F. S. Falconer. W. E. Lawson will survey 1,000 square miles of an area extending from the British Columbia Alaska boundary in a direction parallel to Chilkat river and embracing the valley of this river and Rainy Hollow. The north-east corner of the sheet will extend into Yukon.

Botany and Zoology.

Botanical work will be done on Vancouver Island and on islands in the Gulf of Georgia by John Macoun and J. M. Macoun. P. A. Taverner and C. H. Young will study the life and conditions of the fauna of the Maritime Provinces and make collections for scientific studies and exhibition in the museum. During the summer advantage will be taken of an order made by the Department of Marine and Fisheries, to scale Perce-Rock, Gaspe peninsula. Perce-Rock is probably one of the few undisturbed breeding grounds of the gannet in America, and there is no authentic record that this rock has ever been scaled. Francis Harper will accompany an exploratory expedition into the country between Athabaska and Great Slave lakes under the leadership of C. Camsell. This will be a new field for zoological study. C. L. Patch will do some collecting in the vicinity of Ottawa.

Anthropology and Archaeology.

The field parties of this division will be widely distributed throughout the country. E. Sapir, the chief anthropologist, C. M. Barbeau and F. W. Waugh will in addition to completing certain reports, attending to office routine and museum work, make occasional field trips. Field work will be conducted among the Ojibways of Ontario and Manitoba, the Sioux of Manitoba, the Iroquois of Ontario and Quebec by Paul Radin, W. D. Wallis and F. H. J. Knowles respectively. A. A. Goldenweiser will carry on work among the Iroquois of Ontario, and E. W. Hawkes among the Eskimos of Labrador. A study will probably be made of the Miamaes of the Maritime Provinces by W. H. Mechling, while J. A. Teit will carry on work among the Interior Salish and Northern Athapaskan of British Columbia.

Harlan I. Smith, archaeologist, will carry on intensive exploration in the shell-heaps of Merigomish, Nova Scotia, where important results are anticipated, especially since the country lying around the Gulf of St. Lawrence was formerly inhabited by no less than four totally different peoples. W. B. Nickerson will continue explorations in the mounds, earth works and village sites of south-western Manitoba, and W. J. Wintemberg will explore a section of country between Prescott and Peterborough for a site of a culture different from that of more easterly parts of Ontario.

PETERSON LAKE ANNUAL REPORT

The eighth annual report of the Peterson Lake Silver Cobalt Mining Company, covering the financial year ending April 30th, 1914, is the most satisfactory yet presented. The company made a profit of \$167,377.76 during the year. The cash balance on hand is \$209,245.55, and the balance of assets is \$246,938.20.

Income from royalties during the year amounted to \$181,824.89. Ore bagged is estimated at \$18,000. Interest and rent brought in \$7,541.39.

Expenditures included: Mining and supplies, \$15,691.87; power and light, \$5,259.49; depreciation written off, \$11,663.99; other expenses, \$7,373.17.

Mr. R. B. Lamb, consulting engineer says of the vein discovered at No. 2 shaft in January:

"The work of re-equipping and unwatering No. 2 shaft was commenced December 1st, 1913, and actual development work started January 21st, 1914. Both surface and underground equipment is adequate for the present. Later on it may be advisable to enlarge the rock house and install additional dressing machinery in order to recover the silver in the fines from the bumping table. The cost of equipping this property was \$5,645.00, for hoist, pumps, drills and drill steel, pipe and fittings, cars, tracks, cage, ore scales, etc., including also the erection of a new change and ore storage house. In addition to unwatering and cleaning up the mine, installing necessary pumps, water and air pipes, new guides in the shaft, track, switches and otherwise putting the mine into proper working condition, the station at the 200 ft. level has been widened and double-tracked to facilitate handling the cars; suitable ventilating pipes carried to all headings and electric lights installed on the station and at switches along the main crosscut. A concrete dam has been built in front of the winze from the 200 to the 300 ft. level, the hoist chamber enlarged and winze re-timbered part of the way, thus putting it into proper order to resume work on the third level at short notice.

"When the company commenced work on the No. 7 vein, the upper part of the drift was in conglomerate. After seventeen feet of driving an oreshoot was encountered on January 31st. The first sample assayed 69 oz. silver. After the next round it assayed 141 oz., and after the succeeding round 1,506 oz. The average is over 1,300 oz. The first thirty feet of driving on the vein was in the conglomerate-Keewatin contact. This indicates that the contact is somewhat flatter than was expected. Twenty feet after striking the oreshoot the vein split. The branch which continued along the original strike carried silver in niccolite for twenty-one feet. The vein was followed for fourteen feet beyond the point where the values ceased when a water seam was cut and the vein disappeared. The other branch turned south and it is from this portion that the greater part of the ore has been mined to date. The ore proved to be 110 ft. long in the drift.