CHAPTER I.—INTRODUCTION

Work was started in the Antler Creek area as a continuation of a project initiated at Yanks Peak by Stuart S. Holland. That project started as an investigation of lode and placer occurrences in the Cariboo District but developed into an entirely new interpretation of the structure and stratigraphy. Work in the Antler Creek area extends the mapping at Yanks Peak and Roundtop Mountain to the gold-mining camp of Wells. Conclusions of regional importance have led to the work being continued to the east and southeast, and a preliminary account of this regional work is given in this bulletin.

LOCATION AND ACCESS

The Antler Creek map-area (see Fig. 1) is situated in east central British Columbia about half-way between the northwesterly and southerly flowing parts of the Fraser River. The 53rd parallel and the 121° 30' meridian pass through the centre of the area. The mapped area includes approximately 130 square miles in a polygon whose long dimension is parallel to the northwesterly structural trend of the Cordillera.

The area has a humid continental climate, with a cool short summer. This climate supports a dense coniferous forest with a considerable amount of undergrowth extending from the valleys to within a few hundred feet of timberline (about 6,200 feet). Much of the upland is just below timberline and so is park-like with sparse trees and little undergrowth. Rock outcrop is not abundant on the upland except in small cirques. Below timberline, outcrop is rare except along creeks that are actively down-cutting and in hydraulic pits.
The Antler Creek area includes the town of Wells and the village of Barkerville. Wells is 51 miles by gravel road east of Quesnel, and Barkerville is an additional 4 miles. Dirt roads lead from Barkerville southeast to the Cariboo-Hudson mine and east to Bowron Lake; these and several minor roads provide access within the area.

The Antler Creek area is an important source of lode and placer gold. The Cariboo Gold Quartz and Island Mountain lode-gold mines at Wells have produced more than 32 million dollars in bullion since 1932. Placer-mining has probably produced an equivalent or greater amount. Current annual lode-gold production has a value greater than 1½ million dollars, but current placer production is but a small fraction of this figure.

PREVIOUS WORK

The area surrounding Barkerville has been the chief centre of interest to placer-miners in the Cariboo since the discovery of gold on Antler Creek in the winter of 1860–61. Following the discovery, production rose sharply to a peak in 1863 of about 4 million dollars and by 1874, the date of the earliest detailed records, fully a third or a half of the placer gold produced to date had been mined.

As the revenue from placer mines dropped, interest turned in part to the numerous quartz veins of the region. The first systematic geological investigations were begun by Amos Bowman in 1885 to aid such development (see Bowman, 1889, 1895). From two seasons' field work he produced topographic and geological maps, on a scale of 2 miles to the inch, which covered more than a degree square from Bowron (Bear) Lake in the north to Quesnel Lake in the south, and, in addition, he produced detailed maps of the richer placer creeks. Although later investigations have been made of parts of Bowman's map-area, much of it has not yet been re-examined.

W. L. Uglow (see Johnston and Uglow, 1926) mapped the Barkerville area in 1922 at 1 mile to the inch and studied the lode deposits; W. A. Johnston studied the placer deposits from 1921 to 1924.

G. Hanson (1934, 1935) mapped the Willow River area in 1933 at 1 mile to the inch, and in 1934 mapped a narrow zone, the "Barkerville Gold Belt," between Island Mountain and Grouse Creek at 1,000 feet to the inch.

N. F. G. Davis (1937) continued mapping of the "Barkerville Gold Belt" on Island Mountain at 1,000 feet to the inch.

A. H. Lang (1938) mapped the Little River and Keithley Creek areas in 1935–37 at 1 mile to the inch.

The present map-area includes part of all of the foregoing areas.

P. C. Benedict (1945) and A. C. Skerl (1948b), in papers on Island Mountain and Cariboo Gold Quartz mines, respectively, made important contributions to knowledge of the region.

Stuart S. Holland (1954) mapped the area from Yanks Peak to Roundtop Mountain in 1948–51 on a scale of 1,200 feet to the inch.

FIELD WORK AND ACKNOWLEDGMENTS

This report is based on the following field work: A three-week preliminary examination of the area in September, 1951, four months in 1952, and three months in 1953. The earlier part of the 1951 season was spent mapping in the Roundtop Mountain area under Dr. Holland's supervision. A month each in 1954 and 1955 were spent in reconnaissance southeast and east of the Antler Creek area.

Geology was mapped directly on low-level vertical aerial photographs and transferred to a plot prepared at a scale of 1,000 feet to 1 inch by the Air Surveys Division of the British Columbia Department of Lands and Forests. After the geological mapping was completed, a topographic map was prepared at 2 inches to 1 mile by the Air Surveys Division, with drainage and culture taken from aerial photographs and contours from
previous maps. The geology was transferred to this map, which is accurate as to drainage and moderately accurate as to topography.

Part of the laboratory work was done at the Department of Geology of Princeton University, and much helpful advice was received from members of the faculty, particularly Professors B. F. Howell, J. C. Maxwell, F. B. Van Houton, and E. F. Roots. Professor Howell, and Professor V. J. Okulitch of the University of British Columbia, examined fossils collected in the area and adjacent regions. Capable assistance in the field was rendered by G. E. Apps in 1951, G. A. Kezin in 1952, Y. Kawase in 1953, E. Burton in 1954, and by W. S. Hopkins and Y. Kamachi in 1955. The mining men, prospectors, and residents of the area were generous in their help, especially W. E. Thompson, J. J. Gunn, E. S. Dowsett, and the management and staffs of the Cariboo Gold Quartz and Island Mountain mines.

BIBLIOGRAPHY


—— (1940): Little River and Keithley Creek Map-sheets, Geol. Surv., Canada, Maps 561A and 562A.


