

DESCRIPTIVE NOTES

Selwyn River map bridges a little known area that lies between Klotassin¹ and Carmacks² map-areas, to the west and east respectively, and includes parts of these areas. The following notes are compiled, in part, from information obtained in 1941 on an exploratory trip across the headwaters of Selwyn River, between Canadian Creek and Fort Selkirk, and, in part, from published accounts of the adjoining areas. The map covers almost the entire drainage basin of Selwyn River, which enters the Yukon 35 miles below Fort Selkirk.

The area is accessible from Yukon River and by trails up Selwyn River and Isaac Creek, or by trail direct from Fort Selkirk. A trail, in frequent use, runs up Selwyn River and Hayes Creek and thence up Selkirk Creek to Fort Selkirk, and a less used branch extends farther up Hayes Creek. Above the mouth of this creek the valleys of Selwyn River and its tributaries are narrow and rocky, but the divides at their heads afford comparatively easy travel up to an elevation of 5,000 feet.

Selwyn River heads in the Dawson Range, which consists of a belt of isolated mountains, 6,000 feet or more high, standing above the undulating upland surface of the Yukon Plateau. This surface varies from 4,500 to 5,000 feet in height, and slopes downward to the northeast and southwest.

The Yukon and Mount Nansen groups form the roof pendants and walls of a granitic batholith that constitutes the core of the Dawson Range. The eastern part of the batholith includes a variety of rock types, but along the route followed only granite and granodiorite were noted in any considerable amount. Granodiorite was observed northwest of Dip Creek. It is coarse grained, with large, scattered, hornblende phenocrysts. The granite is medium grained, and in places contains feldspar phenocrysts. In the southern part of the Mount Cockfield ridge a variety of minor intrusive bodies, mainly dykes, including some of peridotite, were observed cutting both the batholithic and older rocks.

The Tertiary rocks represent the northern fringe of a large area that extends southeast across the head of Big Creek. They are mainly lavas, and at the head of Colorado Creek they are warped and faulted, and interbedded with some conglomerate.

The Selwyn River area was not covered by continental ice in Pleistocene time, but a small area around Apex Mountain, the highest peak in the Dawson Range, contained alpine glaciers.

A terrace extends along both sides of Hayes Creek from above Fourmile Creek. Below Butterfield Creek it is mainly on the southwest side, and forms a broad bench for a distance of at least 3 miles. Below Klines Gulch the bedrock surface of the terrace is 150 feet or more above Hayes Creek and is overlain by about 100 feet of gravel. The gravel, in turn, is covered by "muck" back from the front of the terrace.

The map-area forms parts of a mineralized belt that extends along Dawson Range. Mineral discoveries have been made in its more accessible parts: in the southeast near Carmacks and to northwest close to Yukon River. In the southeast, gold has been mined from a number of small placer creeks, and gold and silver have been produced from lode deposits in the vicinity of Freegold Mountain, where lead, copper, and antimony minerals have also been discovered. In the west, Canadian Creek has been a source of a small production in gold and tungsten, and gold has been discovered on a number of nearby creeks.

The map-area has witnessed a little placer mining and lode prospecting along the south side of Hayes Creek and on Rude Creek.

In 1898 placer gold was discovered in Klines Gulch, and resulted in a small rush to Hayes Creek, which was prospected as far upstream as Apex Creek. Gold was found on Butterfield Creek and in places along Hayes Creek Valley below it. About 100 ounces of gold is reported to have been recovered at this time from the south side of the mouth of Klines Gulch. Some years later a partnership of four men worked the gulch for 5 years and recovered about 500 ounces of gold. They built a ditch to bring water from Butterfield Creek and used it to work the lower three-quarters mile of the gulch, but most of their work seems to have been in the lower 300 yards. During this time and a few years later an attempt was made to prospect the gravel on the terrace between Klines and Sonora Gulches by shafts, pits, and tunnels. One shaft near Klines Gulch showed 90 feet of "muck" over the gravel, and a tunnel, 150 feet long, in the gravel near Sonora Gulch, revealed numerous animal bones, but did not expose pay or bedrock. At the same time a number of quartz veins was found around Klines Gulch, and an adit was driven on one vein outcropping 100 feet below the mouth of Klines Gulch. The vein is said to be 8 feet wide and to have yielded values up to 0.4 ounce a ton in gold.

In recent years individual placer miners have done a little intermittent work at Klines and Sonora Gulches. In 1941 one man was working in Sonora Gulch about one-half mile from its mouth. His cut was in the moderately coarse gravels of the terrace, but did not expose bedrock. A stratum of hard, packed sand formed bedrock for the pay. The gold was moderately coarse and slightly worn. The average gold content for the deep narrow cut was given as 1.5 ounces a box length. A principal handicap to placer mining in these two gulches has been the small quantity of water available. The valley of Hayes Creek appears suitable for dredging, and in recent years two companies have leased it and have done some drilling, notably in the first few miles below Klines Gulch. On the south side of Hayes Creek, near Discovery cabin, float and quartz veins containing sulphides and fluorite have been found.

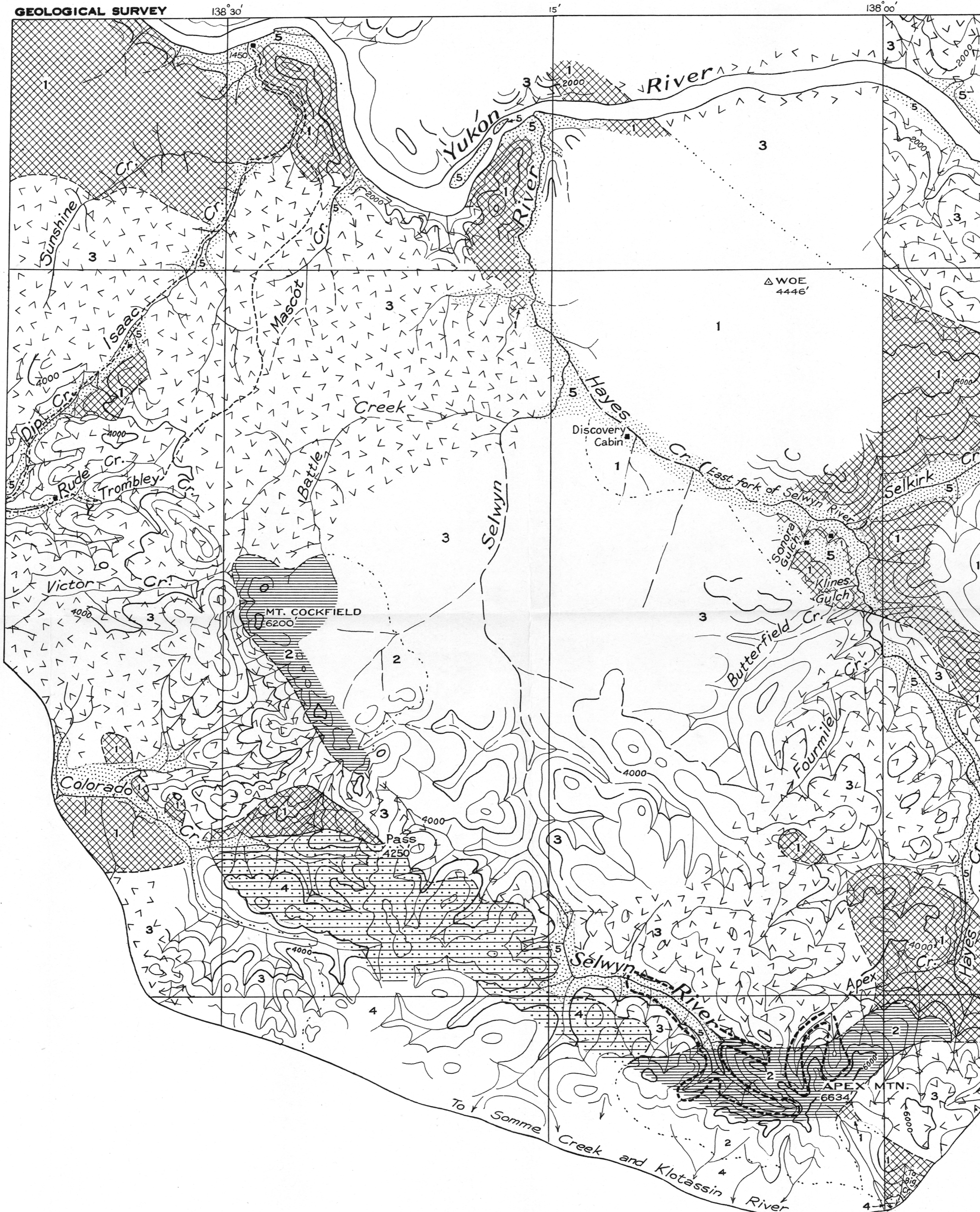
Interest in the western part of the Dawson Range first began about 1912, and in 1915 gold was discovered on Rude Creek. During the following year or two most of the claims on Rude Creek below Trombley Creek were worked. The chief working, about one-quarter mile below Trombley Creek, yielded about 100 ounces of gold from the bed of the creek. In recent years two miners have worked steadily on a low bench on the south side of the creek about 200 yards below Trombley Creek. Their cut runs along the face of the bench for 300 feet. The bedrock surface in the cut is 10 to 15 feet above the creek. The gold is fairly coarse and somewhat flattened. In 1916 a vein carrying galena was found one-half mile up Trombley Creek. The vein was explored in 1927 by a shaft and adit but, though the ratio of silver to lead was high, the work indicated that the deposit was small.

¹Cairnes, D. D.: Klotassin Area; Geol. Surv., Canada, Sum. Rept. 1916, pp. 20-33.

²Bostock, H.S.: Carmacks District; Geol. Surv., Canada, Mem. 189, pp. 1-67 (1936)

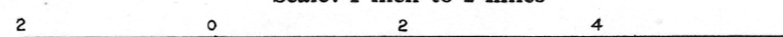
LEGEND

- QUATERNARY**
5 Stream gravel, sand, alluvium, glacial drift
- TERTIARY**
4 CARMACKS GROUP: basalt, andesite, dacite, and trachyte flows, breccias, and tuffs
- JURASSIC OR LATER**
3 Granite, granodiorite
- MOUNT NANSEN GROUP:** basalt, andesite, and dacite flows, breccias, and tuffs
- YUKON GROUP:** mica-quartz schist, quartzite, gneiss, limestone. Includes some granite-gneiss
- Limit of Pleistocene alpine glaciers U
- Adit Y
- Cabin ■
- Form line (shown at intervals of approximately 500 feet) 4000
- Geology by H. S. Bostock, 1941



PRELIMINARY MAP 44-34
SELWYN RIVER AREA
YUKON TERRITORY

Scale: 1 inch to 2 miles



Compiled by the Topographical Survey
Issued 1944.