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TERRITORY OF ALASKA
DEPARTMENT OF MINES

REPORT ON THE EXAMINATION OF THE QUARTZ CREEK LEAD-SILVER PROSPECT, TANANA QUADRANGLE, ALASKA

KK 48-56

by

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The Quartz Creek lead-silver prospect is at 65° 16' N latitude and 151° 23' W longitude in the south-central part of the Tanana Quadrangle. It is on the right limit side of Quartz Creek, tributary to the Yukon River, about one-and-one-half miles from the mouth of the creek. The mouth of Quartz Creek is about 24 miles by river upstream from Tanana. On June 22-23, 1955, I made an examination of the prospect in order to obtain information for the Department of Mines so that the prospect, if worthy of further exploration, could be brought to the attention of potential investors.

In Bulletin 631, THE YUKON-KOYUKUK REGION, ALASKA, 1916, Henry M. Eakin of the U. S. Geological Survey gives the following description of the Quartz Creek prospect:

> "This prospect was not visited by the writer, but it is described by prospectors as a close stockwork of silver-bearing veins cutting limestone for a width of about 10 feet. Specimens from the deposit contain galena, quartz, calcite, and ferruginous materials. The galena in places froms veins several inches across, but usually it occurs as smaller stringers. Much of it shows a curved cleavage, indicating the presence of impurities, possibly due to the silver. The quartz gangue is in part milky vein quartz, stringers of which separate the galena veins in the stockwork. The contacts between the milky quartz and galena are irregular, and in places the extensions of quartz into the galena mass have a clear glassy aspect. There are also clear, glassy, euhedral quartz crystals embedded in the galena that are not connected with the vein

quartz. The ores are said to contain gold and silver in profitable amounts, the silver content having the greater value, but no tests were made by the writer to verify this statement."

The geology of Quartz Creek and vicinity is described by Henry M. Eakin in USGS Bulletin 631. The bedrock in most of the area is a Devonian and pre-Devonian metamorphic complex of schists, limestones, quartzites, and greenstones. The nearest known granitic intrusive is about four miles to the east on the east side of Morelock Creek.

The only underground workings on the prospect are two adits, both of which are caved. The portal to one adit is on a steep slope that faces south toward the Yukon River. It is about 500 feet above the elevation of the river, and, if the portal were not caved, it would be visible from the river. From the size of the dump this adit appears to have been about 50 feet long. The other adit is about 20 feet above the elevation of the creek. It is on the right limit side of the creek 100 yards downstream from the remains of an old log building that probably served as a bunkhouse and mess-hall. The adit enters the hill in a due west direction. From the size of the dump, it appears that 300 to 400 feet of underground workings were driven inside this portal. The dump is composed of fine-grained, dark-colored, gouge-like material with small pieces of quartz scattered throughout.

The dump and portal are hidden by a dense growth of alders. On the dump there are a pile of steel rails, a pile of ties, and an ore car. Up the hill from the portal there are several prospect pits, and near one of the pits there are a few small pieces of galena.

On a discovery monument near the upper adit there is a location notice for the Bonanza King lode claim, which was located on September 4 and 5, 1947, by Henry Parker, an employee of the U. S. Smelting Refining and Mining Co at Fairbanks. The claim may have been allowed to lapse through failure to do assessment work.

A stockwork of galena-bearing quartz veinlets is exposed above the upper adit where caving of the adit has caused subsidence on the surface above. At that place the stockwork strikes N 10° W and dips vertically; its total width is about 10 feet, and in that width there are six quartz veinlets from one to six inches wide.

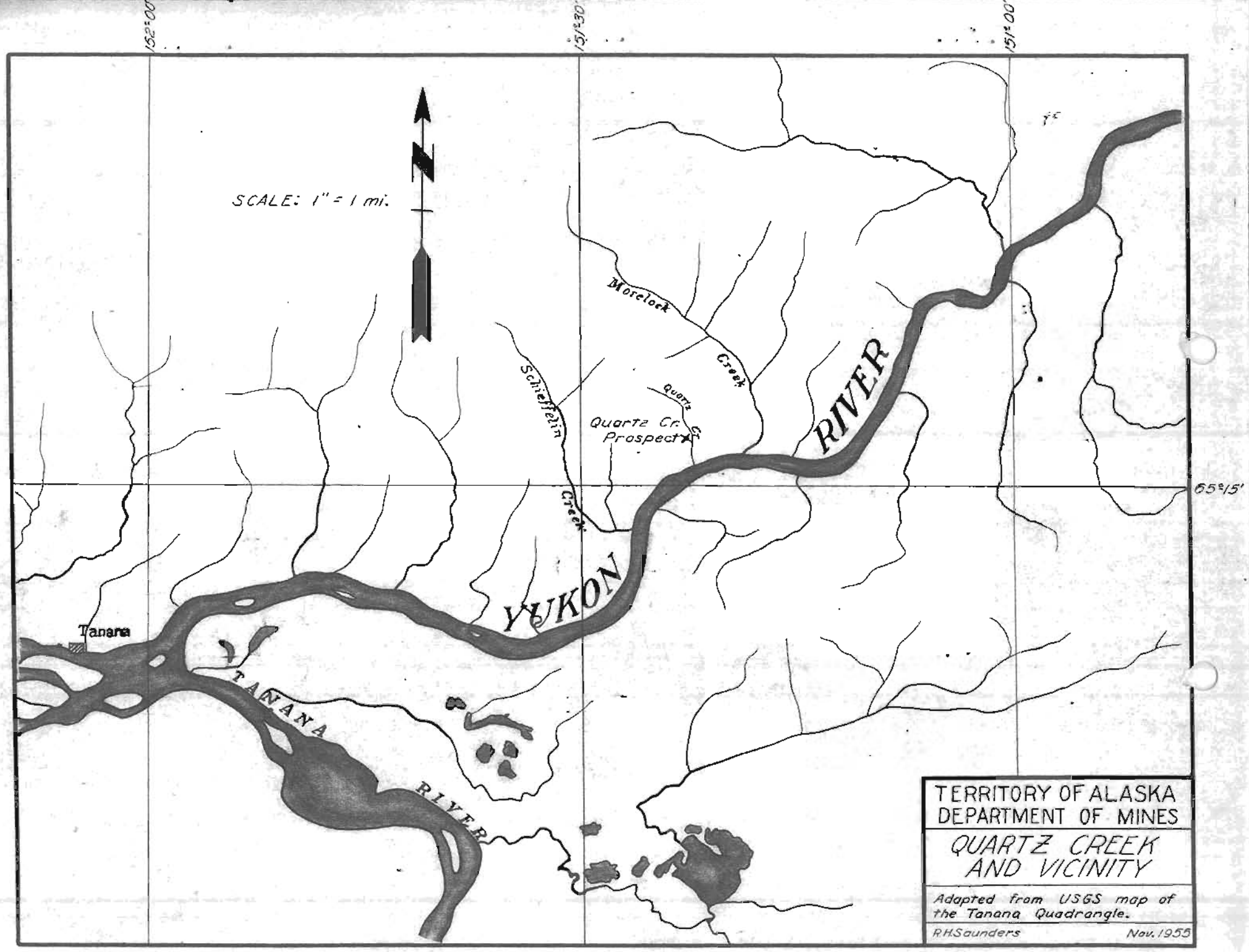
Two samples were taken during this examination, and they were assayed at the Territorial Department of Mines Assay Office at College. A sample taken from the quartz veinlets exposed above the upper adit contained no gold, 9.32 ounces per ton of silver, 8.0 per cent lead, and 1.5 per cent zinc. The other sample was taken from the dump at the lower adit; it contained no gold, silver, nor lead, and only a trace of zinc.

In order to mine the stockwork it would be necessary to mine the intervening country rock with the quartz veinlets. The sample taken from above the upper adit represents only the veinlets, and these would constitute not more than one-fifth the total volume of material to be mined; the remaining four-fifths would be barren country rock. In a pile near the upper adit there are pieces of galena as large as eight inches in diameter; these pieces probably came from the adit, and they indicate that the adit encountered a part of the stockwork in which the veins were larger than those now visible in the exposure above the adit. There is no record of any lead-silver ore having been shipped from this property, and there is no appreciable amount of galena near either adit. Apparently neither adit encountered mineable ore-shoots, and the stockwork, in the one place where it outcrops, is too low-grade to be mined.

Caved portal of upper adit.

Caved part of stockwork above upper adit.

Outcrop of stockwork above upper adit. "X" shows location of portal.


152°00'
151°30'
151°00'
SCALE: 1" = 1 mi.
N
Moreclock Creek
Schieffelin Creek
Quartz Cr. Prospect
Quartz Cr.
YUKON RIVER
65°15'
Tanana
TANANA RIVER
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QUARTZ CREEK AND VICINITY
Adapted from USGS map of the Tanana Quadrangle.
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