PE - Chandalar 31
PE-031-01

BIG CREEK PLACER PROSPECT, CHANDALAR MINING DISTRICT, ALASKA

KX 31-1

The Chandalar mining district is a small compact area the center of which lies about 7 miles east of the north end of Lake Chandalar, approximately 190 miles north of Fairbanks, Alaska. It is one of the few old placer camps in Alaska in which mechanized methods of mining have not replaced hand methods. The richness and the nature of the placers of one or more of the creeks in the district appear to offer opportunity for profitable investment with the use of modern mining machinery.

Since about 1906 some placer mining by hand methods, shoveling-in, ground-sluicing, or drift mining, has been in progress each year on upper Big Creek in the Chandalar. Costs for hand operations were extremely high. Much of the time food and supplies were freighted 120 miles by dogteam from Beaver on the Yukon River. Timber for drift mining operations was also hauled by dogteam. The cost of wood on Big Creek Varied commonly between $50 and $80 a cord. An additional difficulty encountered in prodpecting and drift mining was thawed ground. Only part of the ground is frozen and often shafts nearly completed or drift mining operations no more than begun were flooded when thawed gravel was encountered.

Upper Discovery Claim, about ½ mile from the extreme head of Big Creek, and No. 1 Below Upper Discovery have been mined almost continuously for about 40 years and are now almost worked out by hand methods. KX 31-1 The ground averaged about 12 feet deep, the paystreak about 20 feet wide, and the values per square foot of bedrock about $5. Much of the ground on these two claims

ran about $1200 a box length or $8 per bedrock foot at the old price of gold[1].

From No. 2 Below Discovery through No. 5 Below the ground varies between 15 and 22 feet in depth. Small frozen spots were drifted on 2 and 3 Below. Drift mining was carried on each winter from 1920 through 1934 on 4 and 5 Below but the total area of ground drifted-out is very small. The average width of the paystreak is not known but appears to be well over 50 feet. According to the miners, where drifted between No. 1 Below Discovery and the lower end of No. 5 Below, the ground averaged, at the old price of gold, over $1.50 per square foot of bedrock. As only small, frozen spots were drifted there remains mostly virgin ground from upper 2 Below and downstream.

St. Mary's Creek, a right limit tributary entering Big Creek on No. 5 Below, is a short, steep creek about a mile in length. It was also very rich. Some open-cut and some drifting ground ran as high as $8 per square foot at the old price of gold[1]. On the lowest claim on St. Mary's Creek, where it enters the valley of Big Creek, drifting ground ran over $2 per bedrock foot with a depth of 15 to 20 feet and a width of about 25 feet. The paystreak was lost where it enters thawed ground on No. 5 Below on Big Creek.

Almost nothing is known of the extent or continuity of pay below No. 5 Below on Big Creek. A few shafts have been sunk between 6 and 12 Below. No reliable information on the results of this work is available. It appears very likely that the paystreak, augmented by that of St. Mary's Creek, should continue for some distance below No. 6 Below and that there will be very

very little change in depth of overburden.

In 1941 a 4 inch Kirk-Hillman drill was brought into the district from Fairbanks for the purpose of drilling on Big Creek. Only 6 or 8 holes were drilled. The results of the drilling are not available at present. The new drill still stands idle on the property.

The average grade of Big Creek from Discovery claim to No. 10 Below is about 5%. The valley width increases from about ¼ mile at No. 2 Below to over ½ mile at No. 12 Below. The overburden is medium to medium-coarse slabby gravel with no muck. On No. 2 Below a bedrock reef of greenstone throws some large boulders which would slow mining operations for a few hundred feet. On the other claims none were seen which would seriously hinder bulldozer or dragline operations. According to the drift miners no boulders were encountered in drifting which could not be moved by hand. Most of the gold is found near and in bedrock, but the gold content of the upper gravels is said to be appreciable. The schist bedrock is reported to be easy to work except where crossed by bedrock reefs of greenstone. In previous mining operations bedrock was taken up to a depth of about one and one-half feet.

Downstream from No. 4 Below water sufficient for mining purposes would be available even in very dry seasons. On the upper claims water could be taken from Pedro Creek in dry seasons, or by pumping a sufficient supply could be kept available.

The ground prospected so far could be worked to best advantage by bulldozers or by a bulldozer and dragline combination if further drilling bears out the information obtained from drifting operations. If the paystreak continues for a considerable distance down Big Creek below No. 6 Below, installation of a small dredge might be justified.

Unlike the placers in most districts of Interior Alaska, the deposits in the Chandalar can be traced directly to their origins in large gold-bearing quartz fissure veins, some of which are very rich in gold at their present outcrops.

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[1]Reed, I. McK., Report on the Little Squaw Area of the Chandalar Mining District, Alaska: Territorial Department of Mines, 1932