MI-091-02

PRELIMINARY REPORT OF

GRANITE CREEK

ANIAK-TULUKSAK DISTRICT

ALASKA

September 1938

Location and Description:

Granite Creek is a small tributary of the Tuluksak River which it joins ten miles below the junction with Bear Creek. It is located in the western portion of the Aniak-Tuluksak District. Its entire length, counting its longest tributary, is six miles. The North and East Forks join at a point three and one-fourth miles up from its mouth and form the main river. The size of the creek at this point averages ten feet in width and it has an average depth of six inches. The East Fork has the largest flow of water and drains the largest area. The lower tributaries, each about a mile in length, are Middle Fork, Willow and Mary Lou Gulch. The total area drained by this creek and its tributaries is twenty square miles. The elevation at the junction of the North and East Forks is 880 feet above sea level. At the mouth the elevation is 720 feet. This has a fall of nearly 50 feet to the mile. Above the junction the tributaries have steeper gradients, but they, like the main river are comparatively low. The area drained is a well worn down basin with very gentle slopes and surrounded by gentle rising mountains with elevations at their peaks ranging from 1500 to 2000 feet above sea level. The valley in the center is nearly three miles in width and a noteworthy feature is that it narrows to less than half a mile in width just above its mouth where it leaves the basin and empties into the Tuluksak River. This basin was not glaciated, but shows evidence of having been a lake both prior and during part of the Glacial Period. Evidence that points to a lake basin prior to Glacial times is the extreme flat benches, the shape of the basin, the unsorted lower gravels mixed with considerable granite sands, and the widespread abundance of iron oxides in the lowest pay gravels. Evidence that points to the basin as having been a lake during the Glacial Period is the presence of from two to three feet of fine silt and sand thinly bedded and covering the gravels.

Geology:

The geology of this basin is very favorable for gold in its wide range of acid and basic rocks. The upper half of the valley lies in the southwest end of the main mass of granite that extends from this point north to Mt. Hamilton, crossing Bear Creek on the east and extending towards Mt. Plummer. This granite is rather soft, weathers rapidly and produces a yellowish gray sand much on the order of monzonite. Whether or not this granite is a monzonite will be determined later by examination of slides. The lower half consists of various lavas ranging from rhyolites to basalts. Near the contact the lavas are fractured and in places schisted and mineralized. In the cut opened by Marsh on the right limit below the bench and one mile up from the mouth, the bedrock is a fractured rhyolite. It is somewhat weathered and contains numerous soft gouge veins, some of which contain small quartz lenses and stringers. This wide mineralized contact zone and the intrusive granite itself are believed by the writer to be the source of the placer gold.

Gravels:

The gravels are medium small to fine, mainly angular, and the largest noted had diameters up to three inches. They consisted of the various kinds of lavas and granite, the rocks that make up the surrounding basin. In the open-cut the gravels range between three and four feet in thickness and are covered with three to four feet of sands and silts. Generally the gravels contain considerable granite sands and sufficient iron oxides to color them brownish red.

Description Gold and Associated Sands:

The gold is fine and rough and has a shotty nature. It appears to be evenly distributed and mainly on or within a foot above bedrock. A few small nuggets have been found. Good prospects were found on similar appearing gravels on the benches, which have the same thickness. Here the silts and sands appear to be lacking. The benches with granite bedrock contain disintegrated granite sands of various depths.

Reported Values:

No attempt was made by the writer to determine the average values of the ground, nor is the extent of the pay known. From the opencut totaling 3,300 square feet, Mr. Marsh reports a value of 30¢ per bedrock foot. From four drill holes at fifty foot intervals on a line and extending from this cut across the creek, Mr. Marsh reports better values with the holes averaging eight feet in depth.

Present Operation:

Mr. Marsh is sluicing at the present time using 50 feet of steel boxes and an R. D. 7 Caterpillar with a LeTourneau Bulldozer, the latter used to push the gravels into the boxes. He also uses a 33 H. P. Caterpillar Diesel Motor direct connected to a 8x8 inch Allis Chalmers pump with 100 feet of 8 inch pipe and giant to stack tailings. He also has a 5-inch Airplane Drill on the property and expects to drill this winter.

Future Possibility:

The pay may extend from near the mouth to the junction of the East and North Forks, and possibly for some distance up them. The head of East Fork contains numerous large granite bowlders which have weathered from the formation. Mary Lou Gulch may contain good pay, as it runs over granite bedrock near the contact.

The following sketch shows Granite Creek with its tributaries and the extent of its drainage basin.

TERRITORIAL DEPARTMENT OF MINES
JUNEAU, ALASKA

J.C.Rochm Associate Engineer

Scale 1"=⅔Mile Contour Interval 250'