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## DEPARTMENT OF MINES JUNEAU, ALABKA

April 1, 1953

MEMORANDUM REPORT:

TO: Phil R. Holdsworth, Commissioner of Mines

FROM: James A. Williams, Associate Mining Engineer

SUBJECT: Limited Examination and Radiometric Reconnaissance of the Mountain View Property, Hyder District, September 16, 1952.

As a result of correspondence between Mr. Arthur O. Moa of Hyder, manager of the Mountain View property, and the Commissioner of Mines, it was decided that an examination of the property should be made in the fall of 1952. Consequently, the examination was performed by the writer and Arthur E. Glover, Assayer-Engineer stationed at Ketchikan, on September 16, 1952. Included in the party were Mr. Moa and Robert Velikanje, member of the USGS Trace Elements Unit. Only one day was spent on the property. Mr. Moa expressed the desire for the Department of Nines to assist in the promotion of the Mountain View, so it will be quite in order to make this report available to anyone interested.

The examination consisted of a brief inspection of several veins, both surface and underground, radiometric observations at all likely places, and an investigation with a mineralight for fluorescent minerals underground. In the radioactive work, a Model MX-5 Beckman

radiation detector was used, and the readings were taken by Mr. Glover. Only one sample was cut for assay.

The property has been extensively sampled and examined by other engineers from the Territorial Department of Mines, as well as by the Bureau of Mines, USGS, and Mr. Moa. Former Department of Mines engineers who have investigated the Mountain View are as follows:

- N. L. Wimmler, 1924-1925
- J. G. Shepard, 1926
- J. C. Roelm, 1941
- H. M. Fowler, several visits from 1948 to 1951.

The reports of Wimmler and Fowler appear to be missing from the files.

N. M. Muir and A. W. Erickson of the Bureau of Mines investigated the Mountain View in 1942 and 1944 respectively, and R. I. 3944 dated September, 1946, was written to cover their work. A large number of USGS geologists have reported on the geology of the area, among whom is A. F. Buddington who wrote Bulletin 807 on the Hyder District and individual properties within the district. USGS Trace Elements Unit men investigated the property for radioactive occurrences in 1949 and 1952, but the final reports on their findings have either not yet been published or have not been furnished to the Department of Mines. The TE Memorandum Report 235, dated March, 1951, outlines the radioactive possibilities of the Hyder District on pages 49 to 56 and mentions briefly the 1949 investigation

(West and Eenson) of the Mountain View property. Houston and Velikanje were the 1952 TE investigators.

The location of the Mountain View is about six miles north of the town of Hyder by road and trail as shown in the accompanying vicinity map. The trail leaves the road just above Fourmile, and is in excellent condition all the way to the property, which is at the confluence of Fish and Skookum Creeks. Outcroppings exist on the various claims at elevations from 400 to 1,000 feet. The geographical coordinates are 130°03'W Long. and 55°59'N Lat. Hyder is located on the west side of the northern end of Portland Canal and is close to the Canadian boundary.

The Mountain View group includes nine patented claims, one patented fraction, nine unpatented claims, and is owned and held by the Mountain View Gold Mining Company of which Mr. Moa is manager. The area is in the Hyder Recording Precinct, and the recording office is at Hyder where the records on the Mountain View are recorded and kept. Claim and geological maps of the property drawn by Mr. Moa are on file in the Department. They are well drawn and appear to be accurate.

The topography of the area in question is very rugged. The slopes are covered with large timber of apparent good quality. Rainfall and snowfall average about 75 and 220 inches per year, respectively, at nearby Stewart, B. C., but are probably a little heavier at the property. Mr. Moa reports that the snow is usually gone by May and that the weather is usually best in June.

The Mountain View is along the contact between the Texas Creek granodiorite and the Hazleton series, which consist of gray-wacke, slate, argillite, and volcanics. Numerous veins and exposures are included in the property, but only two of the veins were very closely scrutinized in the investigation—the Canyon vein and the Gray Copper vein. The Ruby Silver vein was checked briefly. Some of the veins are in the granodiorite and some are in the Hazleton series.

The Canyon vein was found to be a large vein, possibly twenty feet wide, of quartz and granodiorite, and barren-appearing. It was reported that this was where the best radioactive samples had been taken by H. M. Fowler and W. S. West in their respective investigations, and Mr. Moa has high grade samples from there, but the writer and Glover could find high radioactive indications only in occasional small pods. It has been found that the radioactive material from this vein can be concentrated into a fairly high grade concentrate, but it is believed that the amount is insufficient for an economical tonnage. West found a sample here that was 0.009% eU, and he concentrated it to 0.398%. In testing the high grade samples that Mr. Moa has taken, one has to turn them about to get the "hot spot" next to the counter tube for a high reading. This indicates fracture filling by circulating radioactive solutions or possibly an uneven dissemination of small radioactive specks or particles through the material. The USGS has identified a secondary uranium mineral on the property as uraconite (?). The Canyon vein

should be developed more, and then channel-sampled in two to fivefoot sample lengths for other mineralization as well as radioactives.

Sample JW 52-36 was taken of some small stringers in the footwall
where no sampling had been done before. Glover assayed the sample
and determined that it contained no radioactivity, no scheelite,
and a trace each of gold and silver.

The Silver Falls vein also needs further development before an estimate can be made of its value.

The Gray Copper vein is exposed underground as well as on the surface. This vein is in the granodiorite. Underground, the mineralight revealed some good scheelite showings, but they are not sufficient to encourage further development in that locality before more surface work is done. In computing from the assay results that are reported by the Bureau of Mines in R. I. 3944, it is found that the largest exposed ore shoot averages 1.23% WO<sub>3</sub> at an average width of 1.39 feet for a distance of about 140 feet. The values decrease in both directions from this shoot. A green fluorescent mineral was also noted underground, samples of which were taken by the USGS men for identification. It was largely a coating and appeared to have been created or deposited after the tunnel was excavated. Phosphorescence was also shown by this mineral.

The surface showings of the Gray Copper vein are exposed in 15 or 16 pits and trenches over a distance of approximately 470

feet. The vein is generally larger here than underground, and gives a more favorable appearance, but the Bureau sample results show it to have lower values. According to the writer's calculations from the above mentioned sampling figures, the surface exposures average 2.10 feet in width and 0.44% WO3. This is based on far fewer samples, and there is one space of over 100 feet where trenching failed to expose the vein. The difference in elevation between the surface showings and the underground work is nearly 300 feet and the dip of the vein averages in the neighborhood of 45° to 50°. Radio-activity in the Gray Copper vein is negligible. Small values in gold and a few good values in silver were reported by the Bureau of Mines.

It appears from the foregoing facts that the Mountain

View property's chief hope for commercial importance is in its

scheelite. High hopes have been held that commercial grade radio
active minerals exist or that a marketable radioactive concentrate

can be made from the property's mineralization, and these hopes

may yet be justified, but Mr. Glover and the writer are of the

opinion that nothing now exposed is more than 0.01% eU unconcentrated

and that there is not sufficient of that to make a commercial

concentrate. It appears that most of the highest grade spots are

of the order of 0.006 to 0.008% eU. As a result of their examination,

it was reported verbally that the USGS Trace Elements Unit report

on the property will conclude that further radiometric investigation

here is not warranted. The possibility of better radioactive material

showing up with further development of the property is always present

however, but it is not strong enough to warrant development expenditures for radioactives alone. If further development is undertaken, a strict watch for radioactives should be kept.

It is recommended that the Canyon and Silver Falls veins be further exposed, if possible without much expense, and be prospected at night with a mineralight to better evaluate their scheelite possibilities. Channel sampling is also advisable.

Other features of the Gray Copper vein besides those already mentioned are that it is reported to be similar in nature to that of the nearby Riverside Mine, and that it strikes in the right direction (NW) to be a possible extension to the Riverside vein.

exposed, are not of commercial interest, but the possibility outlined in the preceding paragraph makes it advisable to do more surface exploration. The next logical step in the development of the vein is to trace and expose it by trenches NW to the property boundary. If size and values improve, more underground development could be then undertaken. Since the values seem to improve with depth, possibly then a winze could be sunk in the ore shoot mentioned previously for lower drifts, in addition to lateral development to the NW by drifting. Also, if after further surface development the vein still strikes toward the Riverside, arrangements should be made for further surface tracing on the Riverside property to

definitely prove or disprove its relationship with the Riverside vein. If it should be determined to be the same vein, development expenditures could be made with more assurance of continuity and improvement of values.

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