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ANNUAL REPORT OF THE MINIST[illegible] OF MINES FOR 1937

Part B -- Special Report by

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HOMESTAKE GROUP. This group of four claims comprising the Homestake No. 1 to No. 4 inclusive, is owned by P. McNamara of "Quartz City", McDames Creek, and is located on the south-westerly slope of Table Mountain. The claims were staked in 1936 and 1937, subsequent to the Vollaug discovery on Table Mountain, and adjoin the Comfort and Bird groups on the south and the King George claim on the east. During the 1937 season, the property was under option to the Consolidated Mining and Smelting Company of Canada, which carried out appreciable exploration of the showings by stripping, open-cutting and pitting before dropping their option.

The property is reached by a good trail extending for 7 miles from the Consolidated Company camp on the south shore of McDame Lake. From McDame Lake (3054 feet elevation) this trail extends south-westerly for about 2 miles along a comparatively level gravel-bench, lightly timbered with jack-pine, with one intervening swamp, and skirts the north-westerly shore of Callison Lake at 3259 feet elevation. At this point it turns south for about 1½ miles and ascends the draw of "Aeroplane Pass" to 3670 feet elevation, from where a branch-trail descends the west slope of Table Mountain to the aeroplane landing at Cook Lake in Machita Pass. From 3670 feet elevation, the main trail continues southerly for about 2 miles up "Aeroplane Pass" to 4100 feet elevation on the slope of Cottonwood River, from which point it extends easterly and north-easterly for

1½ miles to the Consolidated Company Vollaug group camp at 4418 feet elevation on the south-westerly slope of Table Mountain.

The showings are located around 4230 feet elevation, about a quarter of a mile southerly from the camp, in a gently-sloping, open-timbered, meadowed, knolled and ridged area covered with a light overburden of soil and products of nivation, with some clay. In the depressions the overburden is of similar type and moderately thick.

The locality is situated about 4 miles north-easterly from the main eastern contact of the Cassiar granodiorite batholith which, in this area strikes north across the Cottonwood River about one miles west of Petefowler Mountain (Needle Point.) The rock-formation of the locality of the claims consists mainly of carbonatized tuffs, some bands of quartzite and some irregular outcrops of altered, fine-textured, crystalline igneous rocks of probably intrusive origin, of the McLeod series of possibly Jurassic age. The intrusive rocks are also altered by carbonatization, but the main alteration in them is by development of epidote, chlorite, sericite and kaolin. They may have originally possessed the composition of dacite. The tuff outcrops are rusty and locally, adjacent to the veins, sparsely disseminated pyrite occurs in them. The veins occur in the altered tuffs.

The main showing is a white quartz replacement vein 3.2 to 11.3 feet in width, striking north 87 degrees west and dipping 60 to 80 degrees northerly. Irregular quartz bodies also out-

crop and probably represent, in part, blocks of float from contiguous veins and lenses. Definite, superficial quartz float commonly occurs. The quartz is generally barren of sulphide mineralization, but sparsely distributed blebs of pyrite occur locally on the walls of the main vein. Stringers and blebs of ankerite occur in the quartz. The walls of the vein are not well-defined and the lateral boundaries are indicated by diminishing silicification. Locally, the adjacent wall-rock contains sparsely disseminated pyrite.

The main vein is exposed along the 15-degree slope of a low ridge, about 40 feet northerly of the trail. It had been traced a distance of 102 feet by two shallow pits and two open-cuts, between 4230 feet and 4255 feet elevation.

At the east end of the workings at 4230 feet elevation, the vein, barren of sulphide mineralization, is 6.2 feet wide and is exposed in a pit 6 feet deep and 12 feet long, excavated in 5 feet of light overburden. It is enclosed by carbonatized tuffs.

At 4235 feet elevation and 60 feet westerly, a pit 4 feet in depth and 6 feet long exposes the vein, 3.4 feet in width in similar rock. Some stringers of oxidized ankerite occur in the quartz which is very sparsely mineralized with blebs and patches of pyrite, more especially on the hanging-wall side.

At 4250 feet elevation and 48 feet westerly, an open-cut and stripping exposes similar conditions, the vein being 11.3 feet wide and vertical. The quarta is rusty and contains some ankerite stringers but no sulphide mineralization.

At 4255 feet elevation and 24 feet westerly, the vein outcrops and is also exposed by shallow stripping for a width of 7 feet. The dip is 60 degrees north. At this working the hanging-wall rock is silicified and mineralized with disseminated pyrite. About 30 feet westerly from this point a crystalline igneous rock outcrops with quartzite adjacent to it on its east side. At 4265 feet elevation and 72 feet westerly from the last working, trenching for the establishment of further continuity of the vein was proceeding on July 30th.

About 400 feet north 53 degrees east from the most easterly described working and southerly from the trail, white and barren quartz float is irregularly scattered on the surface, or partially buried in soil and talus material, in a flat depression sloping at about 10 degrees. Some of this float is several feet in width, and in part could readily be mistaken for vein outcrops. In this locality at 4235 feet elevation, a pit 2.5 feet in depth exposes two blocks of barren quartz float 1 and 2 feet in width, in soil and talus material. At 4225 feet elevation and 60 feet south 73 degrees east from this, quartz 2 feet in width is exposed in an opencut. This appears to strike north-westerly and dips 30 degrees south-westerly, and may possibly be float. At 4225 feet elevation and 70 feet westerly from this, an irregular body of barren white quartz 5.7 feet in width is exposed in a trench and open-cut. The attitude of this is not clear, and it is possibly also float. Around 4210 feet elevation, and about 50 feet southerly of these exposures, argillite and bedded carbonatized tuff are exposed striking easterly and dipping steeply northerly.

On the south side of the trail, about 350 feet southerly of these showings at 4275 feet elevation, trenching in soil 1 to 5 feet deep exposes a body of rusty barren quartz in oxidized carbonatized tuff. The attitude of this is not clear, but it appears to strike north 12 degrees west and to dip vertically. In a cross-trench there is a width of 21 feet of quartz with a fairly well-defined wall on the west side. At the east end of this trench the quartz is still continuous and is exposed in a connecting-trench to the south, for a length of 19 feet.

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