Box 8 92-N

P R E L I M I N A R Y

REPORT

ON

HOMATHKO GOLD PROSPECT

HOMATHKO RIVER, B.C.

1964

CLINTON

MINING DIVISION

J.J. McDougall
Geologist

PRELIMINARY REPORT ON

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Vancouver, B. C.
March 10, 1965.

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contents

PRELIMINARY REPORT ON
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J.J. McDougall

This report describes an interesting prospecting area in west central B.C. where work is planned in 1965. It is meant primarily as a guide for the prospectors in the field. Geological information, etc. is very limited as the writer spent only a couple of hours on the ground sampling a few of the more accessible veins spotted from the air. Thus descriptions obtained herein are quite preliminary in nature.

NAME

Homathko Gold.

LOCATION

Elevations 4000 to 8000 feet on the north slope of Homathko Peak south of the Homathko River about 8 miles southwest of Tatlayoko Lake. The mineralized zone as observed to date starts from a point tentatively termed the Bluff Showing, which is about 2 miles south 40° west from the Mantle Creek - Homathko Junction and continues, generally at elevations 4500 - 6500 feet, for a mile or so beyond Reliance Creek - a total distance of at least 5 miles. This will be termed the "South Contact".

A paralleling second area of possible interest, the "North Contact", occurs a similar distance north of the river but at a slightly greater elevation. A number of gossans (?) are visible north and west of the river in the vicinity of the Mosley Creek junction and may be of related interest.

Tri-camera airphotos B.C. 454: 17 - 29, 455: 15 - 27, and 453: 65 - 77 are on hand and meant to show the South Contact Zone at a

scale of about 1" to ½ mile. Photos 453: 73 and 74, best show the areas of current interest and a photocpy of #74 is included in this report. In addition, vertical air photos A12108, 117-125, 166-170, 198-206 and A12109, 46-52, are on hand and cover a larger included area of general interest. Photos A12108 (#119-121, 201-203) and A12109 (#50-52) show the areas of immediate interest.

Map 92N (4 mile) "Mt. Waddington" depicts topography quite well and shows existing trails and roads. A copy is included in this report.

The general area is in a precipitation zone of 40-60 inches with rapid gradation to dry-belt within a few miles. Timber is light.

The slopes on which the observed showings occur are north sloping thus snow can be expected to remain much longer than on the other side of the valley. The higher portions of the mineralized zone will be snow-covered until mid-summer. The upward (+ 6500 feet) extent of the zone is ice capped and it is doubtful if this immediate area can be prospected effectively before July. The lightly timbered north contact area should be workable in June given normal weather.

ACCESS

Several access routes are available. A car can be driven to the vicinity of a lodge on Tatlayoko Lake, then a boat taken to the Homathko Outlet - a distance of about 13 miles, from where a good trail runs down the Homathko coming within a few thousand feet of some of the showings about 8 miles from the lake. During high water it may be possible to take a canoe down the upper portions of the river. Tatlayoko Lake (elev. 2900' ±) will probably remain "iced in" until late May or June.

Float planes from Campbell River about 110 miles south can be used to reach the lake by flying up the Homathko from Bute Inlet. (This route was once surveyed for a transcontinental railway but was abandoned in favour of the Fraser River).

Helicopter landings can be made within a thousand feet of most points of interest.

With further reference to the road route, Tatlayoko Lake, about 170 miles northwest of Vancouver, can be reached via a 30-mile south branch of the Williams Lake - Bella Coola (#20) road which it joins about 4 miles west of the small settlement of Tatla Lake. The latter point is about 120 miles from Williams Lake on the Cariboo Highway.

PROPERTY

No claims at present are held. A large portion of the area of interest is under a 4-mile wide Reserve in which recording of claims is prohibited. This was set up to prevent uncontrolled contamination of the Upper Homathko River by mining or logging interests as a major hydro-electric project is planned for the Tatlayoko-Homathko system. Our showings are far above any proposed water level and there should be no area of conflict. However, permission is required to obtain claim records with the main prerequisite to the application being that proof of financial responsibility (apparently against contamination of the river) be established. For this reason claims staked should be as 'agents for Falconbridge' rather than by later bill-of-sale. Claims thrown uphill, as well as the location line if along the main zone, will be outside the boundaries referred to.

HISTORY

Mineralization as noted was first discovered in late September of 1964 during helicopter recce of the Southgate-Homathko area. Several stops were made at the time and samples of the more accessible veins taken by the writer and Roy Hepworth. A number of additional veins were located but not sampled due to lack of time. Some of the material collected assayed well in gold and silver, and as structure and rock type are favourable over appreciable and apparently unprospected distances, current interest has been built up.

The closest claims recorded in the district (Clinton Mining Division) occur about 8 miles to the east where considerable work including drifting was done, prior to 1924, on a gold-bearing zone. The property is known as the Tatlayoko Lake Gold Mines and photocopy descriptions are included here. Another property, Homathko Mines on Blackhorn Mountain, which received work about the same time, is located on Razor Creek, tributary to Mosley Creek, about 15 miles to the northwest. Descriptions are found in the 1938 B.C. M.M. Report and in the 1924 and 1925 Pt. "A" Summary Reports.

Although occurring in an easily accessible, well-defined zone, the showings we discovered may have been largely ice covered 30 years ago and the zone not as attractive prospectingwise at it seems now. Reports indicate that "arsenopyrite veins" carrying low gold values were found by prospectors "west of the Lake".

ORE

Gold bearing sulphides in quartz veins.

GEOLOGY

The general geology of the district is shown on the accompanying photocopy portion of the latest geological map of B.C. The work of immediate interest was apparently done for B. C. Hydro and under the supervision of W. Matthews of U.B.C.

The mineralized zone consists of quartz veins concentrated within a several hundred foot wide altered buff-weathering shatter (?) zone occurring at the south contact of a quartz-diorite sill or satellite of the Coast Range (East side) and a banded series of volcanics and possible included sediments of substantial but undetermined thickness. The main coast batholith contact is shown slightly south. The age of the volcanics, which appear to be andesites although locally altered, is probably Upper Triassic and these can probably be correlated with much similar rock along the east contact of the batholith. As shown quite clearly on the accompanying photo, a distinct sheeting dipping into the hill (southerly) is evident. The contact would appear to be steep southerly and the trend east-west.

Faulting is much in evidence with preliminary interpretations showing strike and oblique faults, being presented on the airphoto. Such is of importance, the zone being distinctly anomalous in this respect. The direct relation to mineralization will have to await ground work. Away from the immediate contact area, however, the stronger (?) steep throughgoing faults contain quartz veins directly in their plane. - i.e. #"D" on photo.

Except for the veins last mentioned, the arrangement is uncertain. Certainly within the zone many of the veins parallel the major structure

but many, and possibly the more important ones, cut across it. None appear to have a persistent strike length of any magnitude, at least along the strike of the zone, although those that cut across it and are lost under ice or talus could have greater dimensions.

The width of most of the veins is seldom over a foot although local widenings to 3 feet have been noted. The persistent "fault plane" veins at "D" are probably a couple feet wide and exposed through a vertical range in excess of 500 feet.

Most of the hundreds of veins exposed in the lode-like deposit are made up of quartz and minor sulphides including pyrite, slight pyrrhotite, and minor chalcopyrite. Those sampled at "C" contained only small amounts of gold and silver (4 samples between 0.01 and 0.14 Au). The one vein outcropping intermittently in a talus slide at "B" was slightly less than a foot in width and composed of 70% massive sulphides, chiefly gray arsenopyrite and pyrite. The better outcrop location produced a 5-pound sample which ran 6.54 oz. Au, 4.7 oz. Ag, while float from the same zone a couple of hundred feet to the southeast returned 0.76 Au, 0.5 Ag.

SUMMARY & CONCLUSIONS

Sulphides associated with the quartz veins at the Homathko Prospect are distinctly gold-bearing and the reasonably accessible but little prospected area deserves some detailed ground prospecting.

RECOMMENDATIONS

It is recommended that two 2-man prospecting parties spend up to 6 weeks in the area carefully searching for sizeable sulphide deposits associated with the numerous quartz veins.

After preliminary supplying of gas, camp equipment, powder, etc. with the helicopter the crew could be self-supporting using one of our boats on Tatlayoko Lake for further supplies.

A fly camp and cache should be left at the south end of Tatlayoko Lake and a further camp established on or south of the Homathko River opposite the main showing. A further fly camp will be needed, unless the helicopter is handy, on Reliance Creek in order to prospect that section thoroughly.

It is suggested that a 2-man party headed by Bob Mickle prospect the A-B-C zone south of the River while another one run by Dave Kimball first check the visible contact area north of the River and look after the precipitous prospecting country around Reliance Creek. Anomalous structural features evident on airphotos would also be checked. Snow cover will determine timing. Claims should be staked if interest warrants it.

REFERENCES

1. B.C. M.M. Reports - 1910, 1938
2. G.S.C. Summary Reports - 1924 (Pt. A), 1925 (Pt. A)
3. Geological Map of B.C. (932 A) - 1962 - Homathko Section
4. Monthly Report - October, 1964 - J. J. McDougall.

Vancouver, B. C.
March 10, 1965

J. J. McDougall
Geologist.

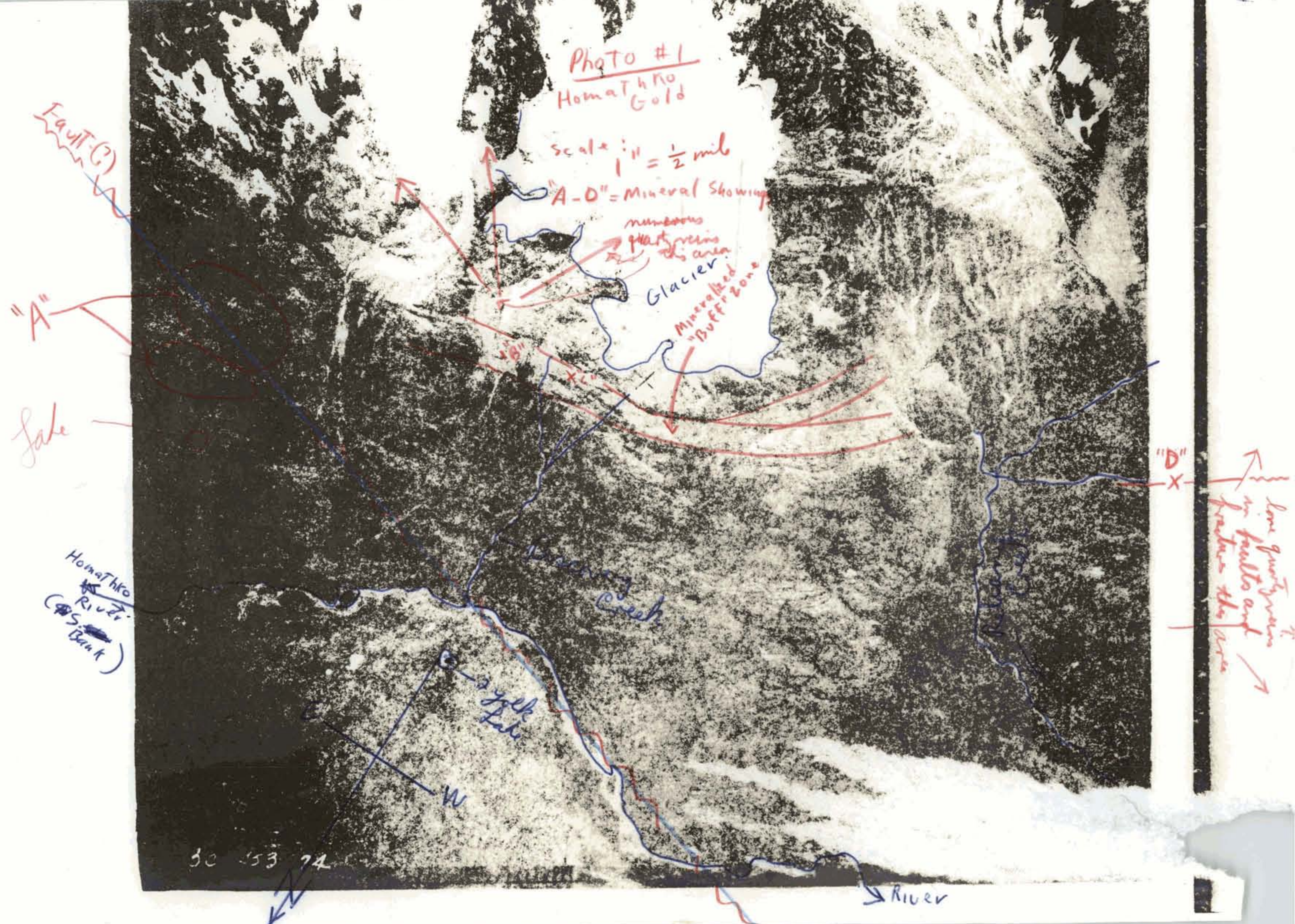
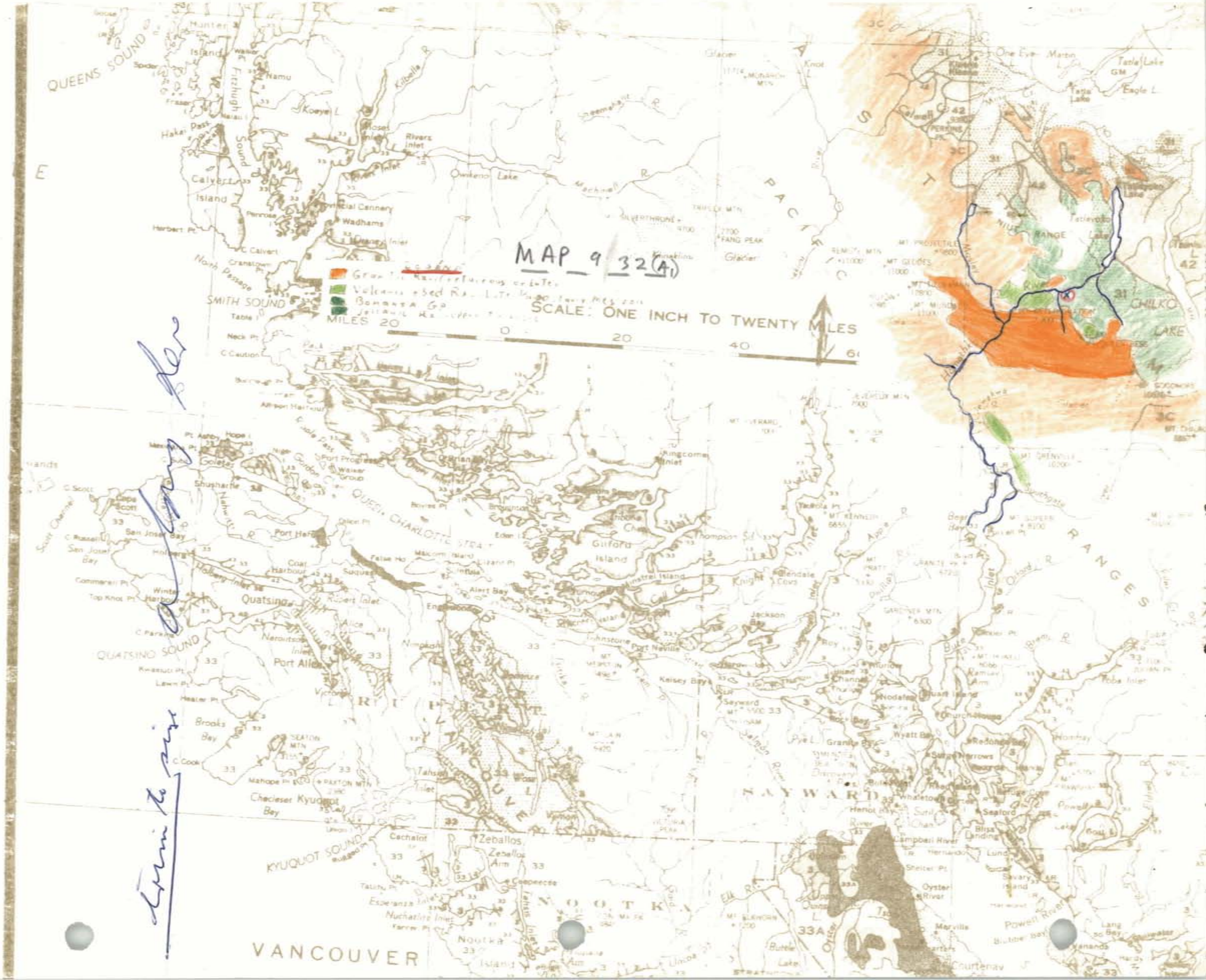


Photo #1
Homathko Gold
Scale: 1" = ½ mile
"A-D" = Mineral Showings
numerous quartz veins this area
Glacier
Mineralized "Buff" zone
Fault (?)
"A"
"B"
"C"
"D"
Homathko River (S. Bank)
Creek
W
River


MAP_9_32(A1)
SCALE: ONE INCH TO TWENTY MILES
MILES 20 0 20 40 60
QUEENS SOUND
SMITH SOUND
QUATSINO SOUND
KYUQUOT SOUND
QUEEN CHARLOTTE STRAIT
PACIFIC
RANGES
CHILKO LAKE
Calvert Island
Gilford Island
Rivers Inlet
Knight Inlet
Port Hardy
Port Alice
Alert Bay
Zeballos
Campbell River
Courtenay
SAYWARD
NOOTKA
VANCOUVER

NANAIMO DISTRICT.

—:o:—

NANAIMO MINING DIVISION.

REPORT BY WM. FLEET ROBERTSON, PROVINCIAL MINERALOGIST.

TATLAYOKO LAKE DISTRICT.

In July, 1910, the Provincial Mineralogist made a trip into the country at the headwaters of the Homathko river, in the vicinity of Tatlayoko lake, where some prospecting had been going on. This district is of interest, as it is also on the contact of the Coast Range granites with the sedimentary rocks of the Interior. That this contact is the most likely section near the Coast for prospecting, and will probably be found mineral-bearing at various points, has been pointed out in these reports, and is particularly noticed on page 67 of this Report, on Portland Canal Mining Division. In this particular section of the contact mentioned, few prospectors have been in the field; it is, so far, virgin ground, and is well worth examination.

At the present time there are no transportation facilities for the shipping of ores, unless of exceptionally high value, nor does it seem probable that such transportation will be provided in the near future; there is, however, no great difficulty in getting supplies or machinery into the district. For this reason it may be advisable for the prospector to give more particular attention to gold-ores, which may be treated on the ground, until such time as sufficiently large and numerous deposits of the base metals have been proven to justify the construction of a railway.

The following report on the district was made by the Provincial Mineralogist to the Honourable the Minister of Mines in August, 1910:—

DEPARTMENT OF MINES,
VICTORIA, August 18th, 1910.

SIR,—With regard to the country in the vicinity of Tatlayoko lake, the headwaters of the Homathko river, on which, at the request of the Honourable the Minister of Works, you instructed me to report, and to advise you whether the mineral probabilities justified the building of a waggon-road into the district.

I have just returned from an inspection of the properties held by Mr. A. H. Sheppard and associates on Tatlayoko lake, and find that they have some eleven or twelve mineral claims, divided into two groups which they call the *Copper Camp* and the *Gold Camp*.

These groups adjoin and are situated on the eastern side of the valley in which Tatlayoko lake lies, some two miles south of the southern end of the lake and directly opposite the pass by which the Homathko river—the outlet of the lake—breaks to the westward through the Coast range of mountains and flows to the south-west into the head of Bute inlet, a distance of from fifty to seventy-five miles.

Tatlayoko lake is at an elevation of about 2,700 feet above sea-level, and the mineral claims referred to are at an altitude of 5,900 feet, or 3,200 feet higher than the lake.

The property is in the Nanaimo Mining Division, being in the Coast watershed, but at present is only to be reached through the Clinton Mining Division—from Ashcroft by waggon-road, *viâ* the 150-Mile House, thence, *viâ* Williams lake, crossing the Fraser river by the

Chimney Creek bridge to Chilcotin, Hanceville, and Alexis Creek. The distance by waggon or stage road from Ashcroft to Alexis Creek is about 225 miles, to which point there is a regular bi-weekly stage and mail service, over good roads.

An alternative route leaves the Cariboo waggon-road either at Clinton or at 99-Mile House, crossing the Fraser river by the Government ferry at Churn creek, thence *viâ* the "Gang Ranch" to Hanceville; this latter route is shorter and is preferred by freighters, but, as these roads are in poor condition and there are no stopping-houses, the former route is taken for passenger service.

From Alexis Creek a fairly good waggon-road continues westward for some fifty miles to Tatla lake, and is much used by the settlers of the district.

From the end of the established waggon-road, Mr. Sheppard has had no special difficulty in continuing to the northern end of Tatlayoko lake, an estimated further distance of some fifty miles (I went a short cut by pack-train, so did not see this part of route), using an ordinary Studebaker waggon with two horses—taking in a fair load of freight, with, to my knowledge, in one instance, a woman seated on top of the freight. This would indicate to me that the unbuilt waggon-road is through easy country, and that comparatively little and inexpensive work would render the road quite serviceable to the north end of Tatlayoko lake. These Chilcotin waggon-roads have been in use for twenty or thirty years and are quite good enough for the service required; no automobile has passed over all of them.

In passing from the watershed of the Chilcotin river over to the watershed of the Homathko, the divide is so low (about 3,600 feet) and gradual as to be imperceptible, and, to quote Dr. G. M. Dawson, in Geological Survey Report, 1875, on the point, "but without mention it would hardly be known that so important a feature in the hydrography of the country existed here."

From inquiry I learn that the usual freight rate from Ashcroft to Alexis Creek by team has been from 2½ to 3 cents a pound, but this last season, due to the rush on the Cariboo roads, the rate went up to 4 cents a pound. I should estimate that 3 cents a pound would take freight from Alexis creek to the north end of Tatlayoko lake. The time occupied by a freight team between Ashcroft and the lake would be from two to three weeks.

Tatlayoko lake is from fifteen to twenty miles long, running north and south in a narrow valley flanked on the west by high mountains rising abruptly from the water's edge; on the east side the mountains do not rise so abruptly, the slope being more or less terraced, but these terraces are broken in continuity by granite or other plutonic masses of rock, which would render difficult and expensive to construct a waggon-road along this shore.

On this point, however, I might say that on the eastern shore of the lake the location stakes of the original route laid out for the Canadian Pacific Railway are still visible, the plans and estimates for which, from Fraser river via Tatlayoko lake to Tatla lake, etc., are still available.

Further, if I am correctly informed, it was by this route that Waddington attempted to find a route for the first waggon-road into the Cariboo country, and his reports thereon should also be available.

There is a road along the eastern side of Tatlayoko lake which might easily be made a very good one, but is now sadly in need of attention and relocation in places.

Mr. Sheppard uses his waggon only to the head of the lake, and transports his freight down the lake in a boat; from the foot of the lake the trail starts up to the claims, a climb of 3,200 feet, and this calls for pack-horses, a condition which would not be altered, however much the transportation facilities into the district might be improved.

I met Mr. Sheppard at Ashcroft—his partner, Mr. Thomas Morris, was at the mines, in charge of the work.

The Copper Camp Group.

The *Copper* group (*Copper Dyke, Copper Dyke Ext.* mineral claims, etc.) is the most northerly of the Sheppard claims, and on this from 480 to 500 feet of tunnelling has been done. At an altitude of about 6,200 feet, on a bare, rocky peak, a certain amount of copper-carbonate and copper-stain led to the belief that there was a copper vein below, and at an altitude of 5,900 feet a tunnel was driven in (S. 45° E.) for 300 feet. This tunnel is driven in on a basic dyke, about 4 feet wide, with a seam of calcite, about half an inch wide, on either side of it.

I could not see even an *indication of mineral* in the tunnel, except a little copper-stain in the ½-inch calcite seam, so there was nothing to sample.

I told Mr. Morris my opinion, and asked him to break me a sample of what he considered "*the very best rock in the tunnel.*" This he did in my presence, and I have brought the sample down and have had it assayed; it does not contain more than a trace of copper, gold, or silver.

Some 400 feet lower than the upper tunnel a crosscut tunnel has been started and driven for 180 feet, but, as Mr. Morris explained, "it had still to be driven 250 feet farther before they expected to cut the lead."

Mr. Morris quotes Mr. Sheppard as authority for the statement that the rock from the upper tunnel "averaged 2.13 per cent. copper, and some assays gave as high as 16 per cent. copper."

The fact is, there never was any ore in the tunnel that assayed in copper, and the 500 feet of drifting done never had any justification. Why money was thus expended I am unable to say; no work has been done on this group this past year.

Tatlayoko Lake Gold Mining Co.

The *Gold* group, of which the principal claim is the *Tyee* mineral claim, lies to the south of the *Copper Camp*, at an altitude of 5,900 feet and above timber-line. The country-rock here is a network of dykes, mostly basic, frequently cut by more recent acid dykes; these dykes are so numerous as to completely obliterate most signs of the original sedimentary formation.

Cutting through this network of dykes there was seen, outcropping on the surface, a quartz vein, having a strike of about S. 20° E., and dipping to the east, into the hill, at an angle of 37 degrees—very persistent in its course, but of variable width, varying from a few inches to several feet. I took a rough sample of this outcrop, at one of the wide parts where it seemed to be most heavily mineralised, and find it to assay: Gold, 3.50 oz.; silver, $26 to ton, being ore worth about $85 to the ton.

Associated with this quartz vein, apparently in lenses lying alongside the vein, were considerable quantities of stibnite—sulphide of antimony—mixed with quartz. These lenses assayed about the same in gold as did the main vein, and such experiments as I have been able to make did not indicate any increased gold values with an increasing percentage of antimony, from which I argue that the gold value is not associated with the stibnite, although it seems probable that the silver values are so carried.

To strike this outcrop at a depth, a crosscut tunnel had been run, S. 55° E, for 60 feet without cutting the vein; a raise was then put up from the tunnel for 18 feet, and the vein was found, being here about 12 inches wide. I sampled it at this point, and found it to carry: Gold, 0.28 oz.; silver, 2.60 oz.; about $7 ore. The raise indicated that the tunnel was too far to the right, so a deflection was made to the left for 30 feet, when the vein was struck at the tunnel level, and subsequently this vein has been drifted on for 20 feet, but the last 18 feet only of the tunnel might be considered as in commercial ore.

At the face of the tunnel the whole drift was in ore, and apparently had not disclosed the full width of the ore-body. What was considered the "hanging-wall" was quartz, which I had sampled, and it assayed: Gold, $8; silver, 16 oz. to the ton; below this the vein was exposed for a width of 90 inches, which I sampled, in three parts of 30 inches each, and assayed, as follows:—

	Gold, oz.	Silver, oz.
30 inches, next hanging wall	Trace.	0.4
30 inches, middle of vein	0.14	1.0
30 inches, bottom of vein	0.20	30.4

The lower 30 inches of the exposure in the face of the tunnel contains a considerable percentage of sulphide of antimony; this part of the vein continued into the floor of the tunnel, for a depth not determined, so that the 30 inches sampled does not represent the full thickness of this grade of ore.

These samples were certainly encouraging, but not as yet commercial ore in this locality, and not nearly up to the indications of the surface outcrops.

At an elevation some 100 feet lower than the upper tunnel, a lower tunnel has been driven in on another quartz vein, which vein is from 6 to 12 inches in width, having a strike of about S. 55° E. (mag.), and a dip to the north-east of 35 degrees. This vein was followed in by the tunnel for 105 feet, when another vein, having a strike S. 32° E., and a flatter dip, was encountered, and the tunnel was deflected to the left along this for 54 feet, when a further deflection was made to the left—to S. 32° W.—and the tunnel continued for 90 feet; in which latter portion it could not be seen that any vein was followed or cut. The quartz in this lower vein was sampled and assayed, and contained: Gold, 2.90 oz., and silver, $1.50 a ton, equivalent to about $59 to the ton.

The property stands as a prospect upon which they have driven 12 feet on a body of ore, as indicating by assays, of increasing and as yet undetermined size.

As to the geology of the district, the granite and other plutonic rocks forming the Coast Range mountains extend eastward as far as Tatlayoko lake; on the east side of this lake are the sedimentary rocks of the Interior, and along this contact there is a strong probability that productive mineral deposits occur, particularly where the dykes from the main Coast upheaval have struck off into the sedimentaries. It is on this contact that the mineral locations of Portland canal, the Telkwa, and of Lillooet are found.

While the Sheppard locations are merely prospects, and in no way justify the expenditure of any serious amount of money by the Government for better transportation, still the district in general is so promising that, in my opinion, it is highly desirable that a trail be put through from the Coast (Bute inlet) into the district, but I do not think there is any present need for a waggon-road.

I am, Sir,

Yours truly,

W. F. ROBERTSON,

Provincial Mineralogist.

During the season Mr. Morris, discoverer of the Morris mine, and Mr. Feeney discovered some arsenopyrite veins in the mountains west of Tatlayoko lake, but the gold content of the ore was found to be disappointingly low.

Some small, rich pockets of placer gold are reported to have been found in Lingfield creek by the prospector for whom the creek is named, but much careful panning has failed to reveal any more gold. This gold may have originated in the vicinity of the intrusive lying north and east of Tatlayoko lake.

MORRIS MINE

The most important deposit in the district is that of the Tatlayoko Lake Gold Mines, Limited, better known as the Morris mine. It was discovered in 1907 by Mr. I. T. Morris of Vancouver, who is still one of the principal owners. Considerable development was done shortly after the discovery and more recently a small sawmill was built about a mile from the south end of Tatlayoko lake. The company still maintains offices in the Dominion building in Vancouver.

The deposit is situated 3 miles southeast of the south end of Tatlayoko lake. It is at an elevation of 5,900 feet, just above timber-line, and 3,200 feet above the lake. A good wagon road extends south from the lake for about a mile, to where the sawmill was built. From near the end of the road a trail leads up the steep slopes to the mine. The trail is at present partly overgrown and difficult to follow, but could be repaired at a small cost. There is a comfortable camp site at the lake shore, and at timber-line about one-half mile from the mine a good camp was built but has since been destroyed by snow.

The deposit consists of three quartz veins outcropping on the sides of a steep rocky gulch (*See* Figure 5). The veins cut Triassic sediments, chiefly argillites and fine sandstones, but with one thin bed of fine cherty conglomerate. A short distance northeast of the veins is a stock of quartz diorite probably related to the Coast Range batholith, the edge of which is situated a few miles to the south. Many dykes cut the sediments and range in composition from diorite to basalt, the majority being basaltic. Many, if not all, of them are younger than the veins, since they cut the veins or cut other dykes which cut the veins. One basalt dyke follows the main vein throughout its length, crossing it and recrossing it and holding included fragments of it.

The largest or main vein is exposed on a steep, rocky slope for a vertical distance of 450 feet and an horizontal distance of 850 feet and is followed underground for 382 feet by a tunnel beginning at its lower outcrop. The vein varies in width from 8 inches to 5 feet, but probably averages less than 2 feet.

At a point 345 feet southwest and 200 feet lower than the above tunnel is No. 2 vein. This could not be traced on the surface owing to the precipitous nature of the slope up which it passes, but has been traced underground by a tunnel for 240 feet. Owing to its irregular dip it was difficult to follow and the tunnel is, therefore, crooked. The vein is comparatively uniform in width, averaging about 8 inches.

Above the main tunnel and nearer the quartz diorite stock occurs No. 3 vein. This was not seen by the writer, but Mr. Morris states that it

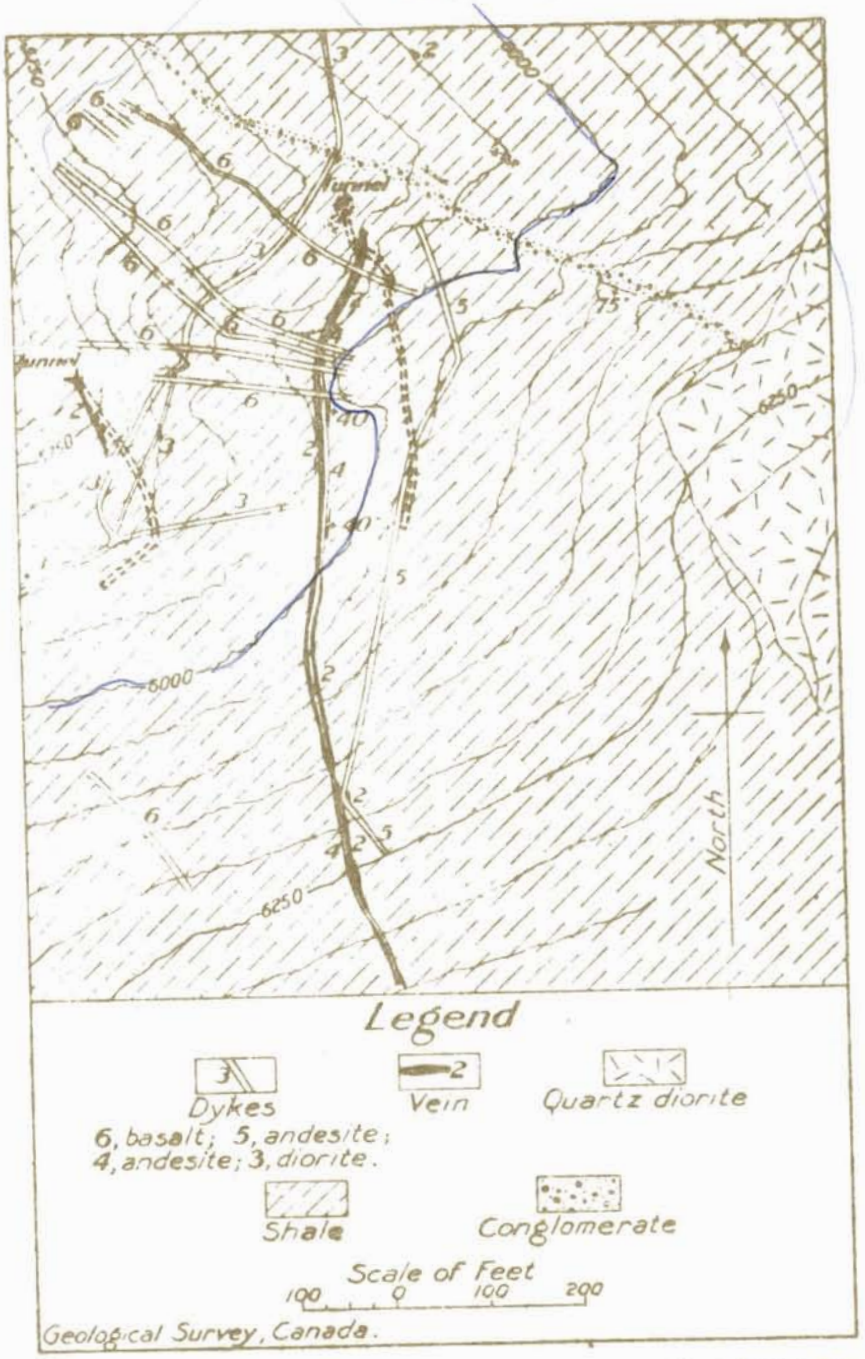


FIGURE 5. Tatlayoko gold-antimony deposits, Tatlayoko lake, Coast district, B.C.

was traced for several feet and is similar in width and composition to the other veins.

The veins consist of quartz through which is disseminated fairly evenly arsenopyrite, pyrite, stibnite, and two or three undetermined minerals visible only under the microscope, but which, judging from the assays, are probably silver-bearing. These minerals are closely associated with the stibnite which tends to occur in the central parts of the veins, whereas the gold, arsenopyrite, and pyrite are more plentiful along the margins. The rock adjoining the veins has been altered to a very dense greyish green material resembling chert.

The following assays were made from samples taken from the tunnels by the writer at points which appear to contain an average amount of metallic minerals.

No.	Location	Width of vein sampled	Gold	Silver	Antimony	Arsenic
		ins.	ozs.	ozs.	%	%
1	324 feet from entrance to main tunnel	18	1·68	46·06	1·79	5·54
2	31 feet from entrance to lower tunnel	12	0·19	3·17	0·3	2·0
3	164 feet from entrance to lower tunnel	13	1·19	7·59	3·9	4·11

Samples collected by J. D. Galloway[1] gave the following results.

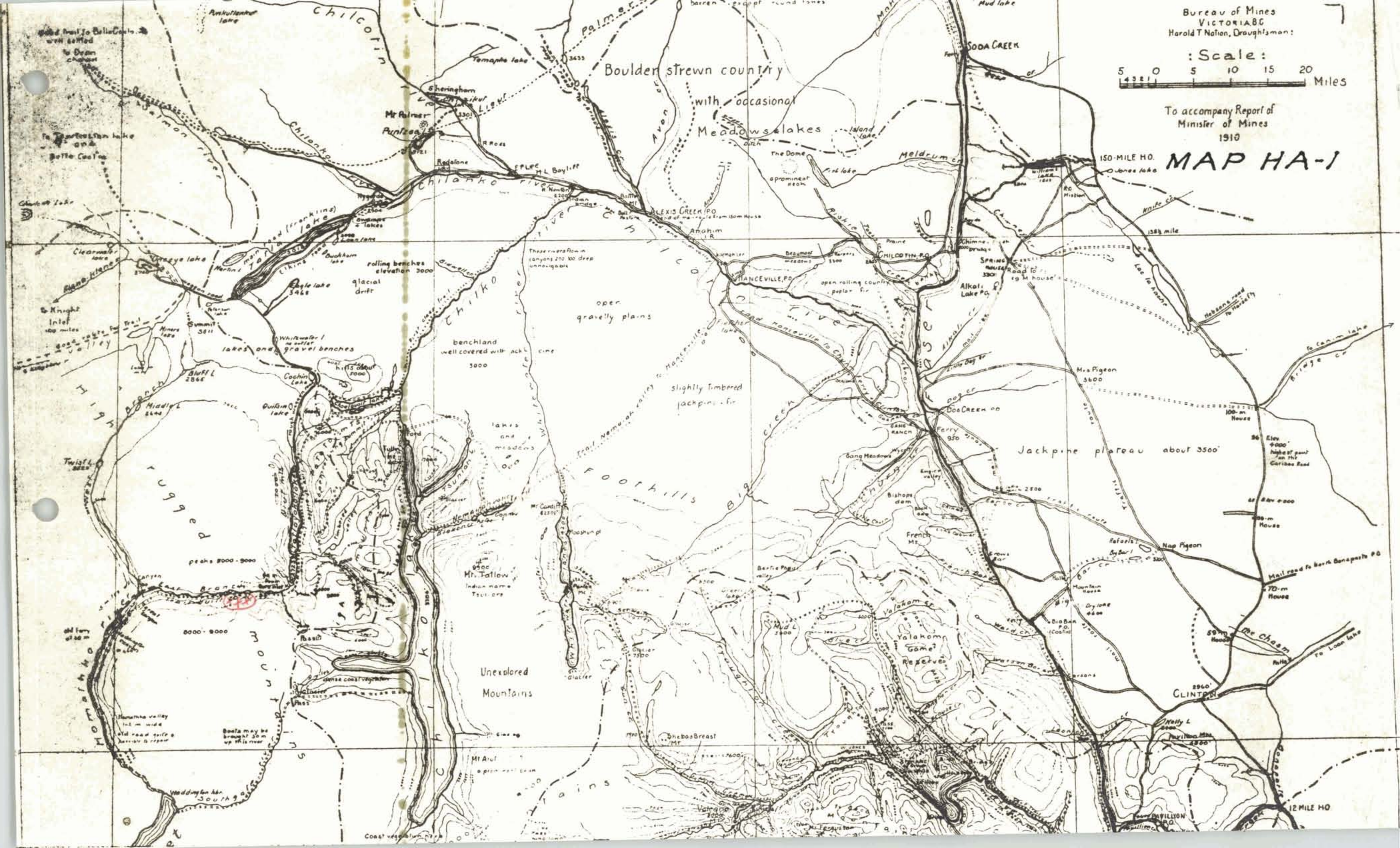
	Ozs.
Across 6 inches, 286 feet from portal main tunnel	gold 0·06
	silver 0·8
Across 18 inches, 110 feet from portal main tunnel	gold 0·5
	silver 10·3
Across 18 inches, 163 feet from portal main tunnel	gold 0·06
	silver 0·9
Picked specimens from dump showing high proportion of antimony	gold 0·02
	silver 6·2
Across 8 inches, 139 feet from portal lower tunnel	gold 0·5
	silver 6·2

Samples taken by W. Fleet Robertson[2] assayed as follows:

	Ozs.
(1) Across 12 inches from raise 69 feet from portal main tunnel	gold 0·25
	silver 2·6
(2) Hanging-wall, quartz 80 feet from portal of main tunnel	gold [illegible]
	silver 16
(3) Across 30 inches, 90 feet from portal main tunnel	gold, trace
	silver 0·4
Across 36 inches, 92 feet from portal main tunnel	gold 0·14
	silver 1·0
Across 30 inches, 89 feet from portal main tunnel	gold 0·2
	silver 23·4
Lower tunnel	gold 2·79
	silver 31.80

Mr. Morris has many assays showing values higher than any of the above and in some instances amounting to $90 to the ton in gold and silver

[1] Rept. Minister of Mines, B.C., 1926, p. 179.
[2] Rept. Minister of Mines, B.C., 1926, pp. 126 and 127.


Bureau of Mines
VICTORIA B.C.
Harold T Nation, Draughtsman:
:Scale:
5 0 5 10 15 20
Miles
To accompany Report of
Minister of Mines
1910
MAP HA-1
Boulder strewn country
with occasional
Meadows lakes
SODA CREEK
150-MILE HO.
Jones lake
Meldrum cr
The Dome
a prominent peak
Island lake
Fish lake
Chilcotin
Chilanko river
Chilanko
Sheringham
Mr Palmer
Puntzeat
Redstone
H.L. Bayliff
ALEXIS CREEK P.O.
Anahim I.R.
HANCEVILLE P.O.
CHILCOTIN P.O.
Alkali Lake P.O.
SPRING HOUSE
Chimney cr bridge
Lac la Hache
Williams Lake
R.C. Mission
Knife cr
rolling benches elevation 3000
glacial drift
Eagle lake 3465
Tatla lake
Puntzi lake
Tatlayoko lake
Clearwater lake
Choelquoit lake
Bluff L 2866
Middle L
Twist L
Quitsin lake
Cochin lake
Whitewater L
lakes and gravel benches
hills about 5000
Summit 3611
Minera lake
Knight Inlet
open gravelly plains
benchland well covered with jack pine
3000
slightly timbered jackpine - fir
Chilko river
Chilko
lakes and meadows
foothills
Big creek
rugged
peaks 8000-9000
8000-9000
mountains
Unexplored Mountains
Mt. Tatlow
Homathko river
Waddington hbr.
South gate
Mt. Alexander
French Mt.
Gang Ranch
Gang Meadows
DOG CREEK P.O.
Ferry 950
Mrs Pigeon 3600
Jackpine plateau about 3500'
100-m House
Big Bar L
Nap Pigeon
Mail road to North Bonaparte P.O.
70-m House
Mountain House
BIG BAR P.O. (Costin)
Yalakom cr
Yalakom Game Reserve
Mud L 3600
Shebas Breast Mt
59 m House
Bonaparte
Loon lake
Clinton 2960'
CLINTON
Kelly L
Pavilion Mtn
PAVILLION P.O.
12 MILE HO.
Coast vegetation

off Bracewell

Fuel + Powder ... three tons.

Sleeping Bags needed.

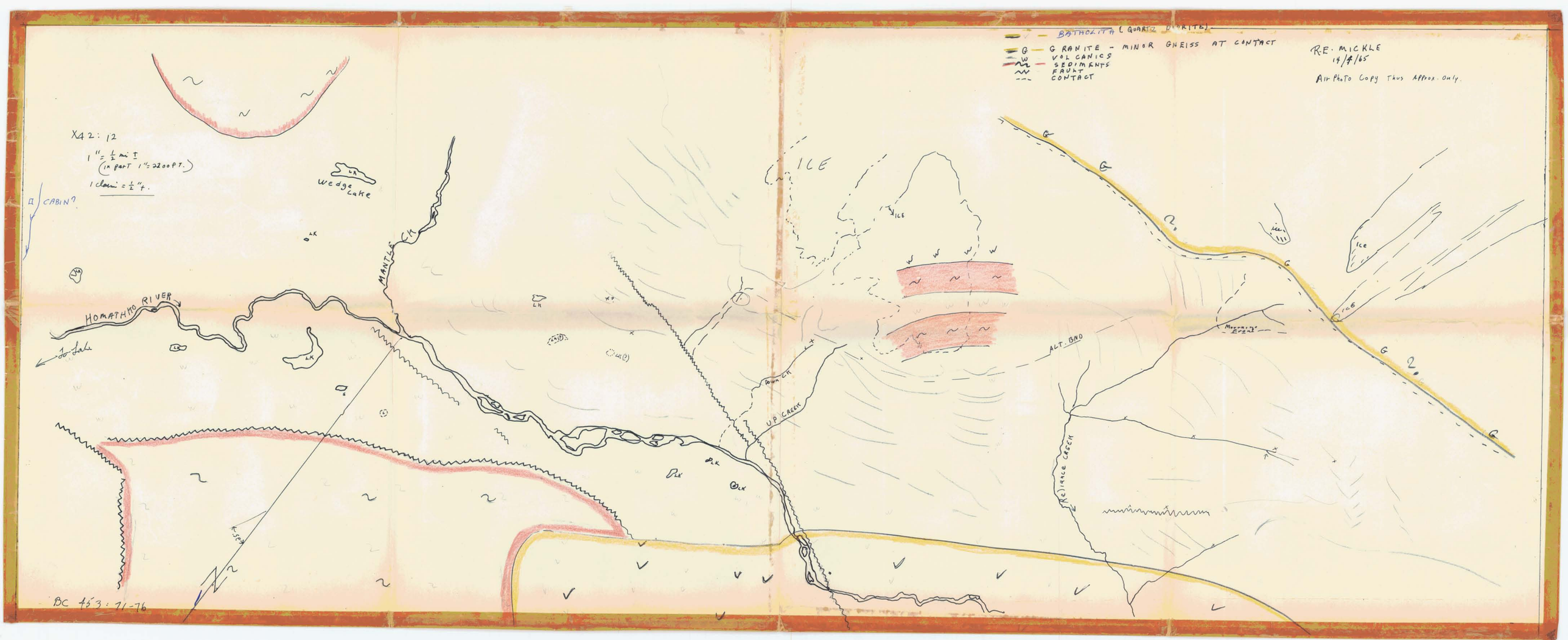
Advise

CKWL

Williams Lake.

Agent Bob Carson.


(QUARTZ DIORITE)
G GRANITE - MINOR GNEISS AT CONTACT
W VOLCANICS
SEDIMENTS
FAULT
CONTACT
R.E. MICKLE
14/4/65
Air Photo Copy Thus Approx. Only.
X42: 12
1" = 1/2 mi ±
(in part 1" = 2200 FT.)
1 claim = 1/2" +.
CABIN
Wedge Lake
HOMATHKO RIVER
To Lake
MANTLE CK.
ICE
LK
DOWN CK.
UP CREEK
ALT. BND
Reliance Creek
BC 453: 71-76
need 10 posts


BATHOLITH (QUARTZ DIORITE)
G — GRANITE - MINOR GNEISS AT CONTACT
W — VOLCANICS
SEDIMENTS
FAULT
CONTACT
R.E. MICKLE
14/4/65
AIR PHOTO COPY THUS APPROX. ONLY.
X42: 12
1" = ½ mi I
(IN PART 1" = 2200 FT.)
1 claim = ½"
CABIN?
Wedge Lake
MANTLE CK
HOMATHKO RIVER
To Tatla
ICE
BROWN CK
UP CREEK
ALT. BND
(R.) RACE CREEK
BC 453: 71-76

LADY ROYAL

fossils & mr down (walking)

also on N. mountain 3 mi W of

on main R.

Better maps
at B.C. H. Lib.

GEOLOGY OF THE UPPER HOMATHKO BASIN

LEGEND

	Mainly sedimentary rocks A - Lower Cretaceous arkose, shale B - Lower Cretaceous argillite, siltstone and greywacke C - Mesozoic greywacke, conglomerate and argillite	Outcrops distinctly bedded and rusty weathering.
	Red Shales and closely associated sediments, (Mesozoic?)	Conspicuous brick red to maroon colour.
	Mainly volcanic rocks - greenstone and greenstone breccia, minor tuff	Outcrops massive, dark grey to dark green.
	Highly metamorphosed rocks - gneiss, mica and chlorite schists, etc.	Outcrops medium to dark grey, generally banded.
	Granitic rocks Tiedemann batholith - pale granodiorite, minor diorite gneiss at margin	outcrops very pale, jointing simple and relatively sparse.
	Shelter Canyon stock - quartz diorite	Pale outcrops, blocky jointed
	Undifferentiated pale granitic rocks	
	Undifferentiated dark granitic rocks- diorite to quartz diorite, possibly some metamorphic rocks.	Massive to banded, medium grey outcrops, irregular to sheeted jointing, many dikes.

- Strike and dip of bedding
- Strike and dip of gneissic banding
- Synchline axis
- Axis of plunging anticline
- Contact, closely located
- Contact, position approximate
- Fault
- ② Proposed power project (numbered as in accompanying report).

Observations on Homathko River and Mount Success are based on ground traverses. Data on the northern edge of the map and around Tatlayoko Lake has been compiled from Geological Survey of Canada maps. Elsewhere, mapping is based on aerial reconnaissance only.

W.H.Mathews, 1957.

REFERENCE DRAWINGS	REFERENCE DRAWINGS	REVISIONS		DIVISION APPROVALS	BRITISH COLUMBIA POWER COMMISSION	
		No. REMARKS BY DATE APP'D	No. REMARKS BY DATE CH APP'D	DATE L.E. I.R. T.R. C.H. SCALE: 1" = 2 Miles	STRUCT. HYDRA. MECH. ELECT. FINAL	LOCATION HOMATHKO RIVER PROJECT HOMATHKO DEVELOPMENTS SECTION HOMATHKO - MOSLEY AREA SUB SECTION GEOLOGY DETAILS (REPORT DR. W.H. MATHEWS)

W.A. No. J.O. No.
PROJ. OR DIST. No. 704
DRWG. No. D.2794

2 pack Std.
Seymour + Dennison
6th floor
Miss Clay.