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GEOLOGICAL REPORT

"H" CLAIMS, NAHATLATCH AREA, B.C.

Kamloops Mining Division, bordering
New Westminster Mining Division

by

J. A. Chamberlain, P.Eng., Ph.D.

Claims: H-5, H-7, H-9, H-11 to H-19, Incl.

Location: Approximately 14 miles N.W. of Boston Bar

Date: July 4, 1973

July 26, 1973

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Nickel Assays, Bondar-Clegg

Statement of Expenditures

Consulting Services

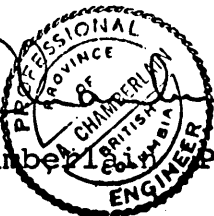
Field examination of subject claim group, mapping, petrography, mineralogy, evaluation, compilation, report

1.5 days @ \$150.00	\$225.00	
5.1 days @ \$100.00	<u>510.00</u>	\$ 735.00

Expenditures

May 23 Vancal reproductions	\$ 7.76	
July 5 Western Tech. Supply	8.03	
July 5 J. A. C. Cash expenses, Nahatlatch	42.00	
July 5 Mileage charge	40.80	
July 5 Field Assistant	45.00	
July 5 Air Photo rental	14.90	
July 6 Xeroxing 10 X 15	1.50	
July 6 Postage	2.65	
July 9 Coats; thin sections	16.00	
July 11 Bondar-Clegg, assays	45.00	
July 12 CRM, pol. sections	24.54	
July 12 Okanagan Helicopters	208.80	
July 23 Western Technical	1.18	
July 25 Xeroxing 70 X 15	10.50	
July 26 Williams Bros.	<u>4.10</u>	<u>472.76</u>
Total		<u>\$1207.75</u>

Certified correct

J. A. Chamberlain

 J. A. Chamberlain, P.Eng., Ph.D.



Introduction

This report describes the results of a geological survey of 12 contiguous mineral claims designated H-5, H-7, H-9, H-11 to H-19, incl. The survey was carried out by the writer personally on July 4, 1973.

Location

The subject claims are located about 14 miles northwest of Boston Bar along a summit ridge separating Log Creek from the Fraser River. The center of the claim group is approximately $121^{\circ}37'W$, $50^{\circ}04'N$. Their elevation ranges between 5300 and 5500 feet. See location insert map included as part of Figure 1.

Access

Access to the claims is best obtained by helicopter, chartered from Okanagan Helicopters at Lytton, some 25 miles north. Other access would be by a jeep road from the junction of the Nhatlatch and Fraser Rivers northwest to an elevation of 4000 feet, then on foot some four miles northwest along the summit ridge to the center of the claim group.

References

Duffel, S. and McTaggart, K.C., 1947, Geological Survey of Canada Map 1010A, "Ashcroft", With Marginal Notes.

General Geology

The area under discussion lies along the eastern margin of the B.C. Coast Range, adjacent to the Interior Plateau to the east. The rocks show a wide range in type, age and degree of metamorphism, but their structural trend remains fairly consistent to the northwest-southeast.

The oldest rocks are phyllites of probable Mesozoic age. Another thick sequence of volcanic and metasedimentary rocks is probably Cache Creek (Permian?). Intrusive into these units are extensive bodies of granodiorite and quartz diorite as well as localized zones of ultramafic rock. The latter group are an extension of the Coquihalla ultramafics which form a semi-continuous belt for some 50 miles to the southeast and which cross the Fraser Canyon in the vicinity of Boston Bar.





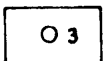
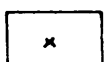
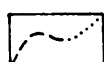
Local Geology

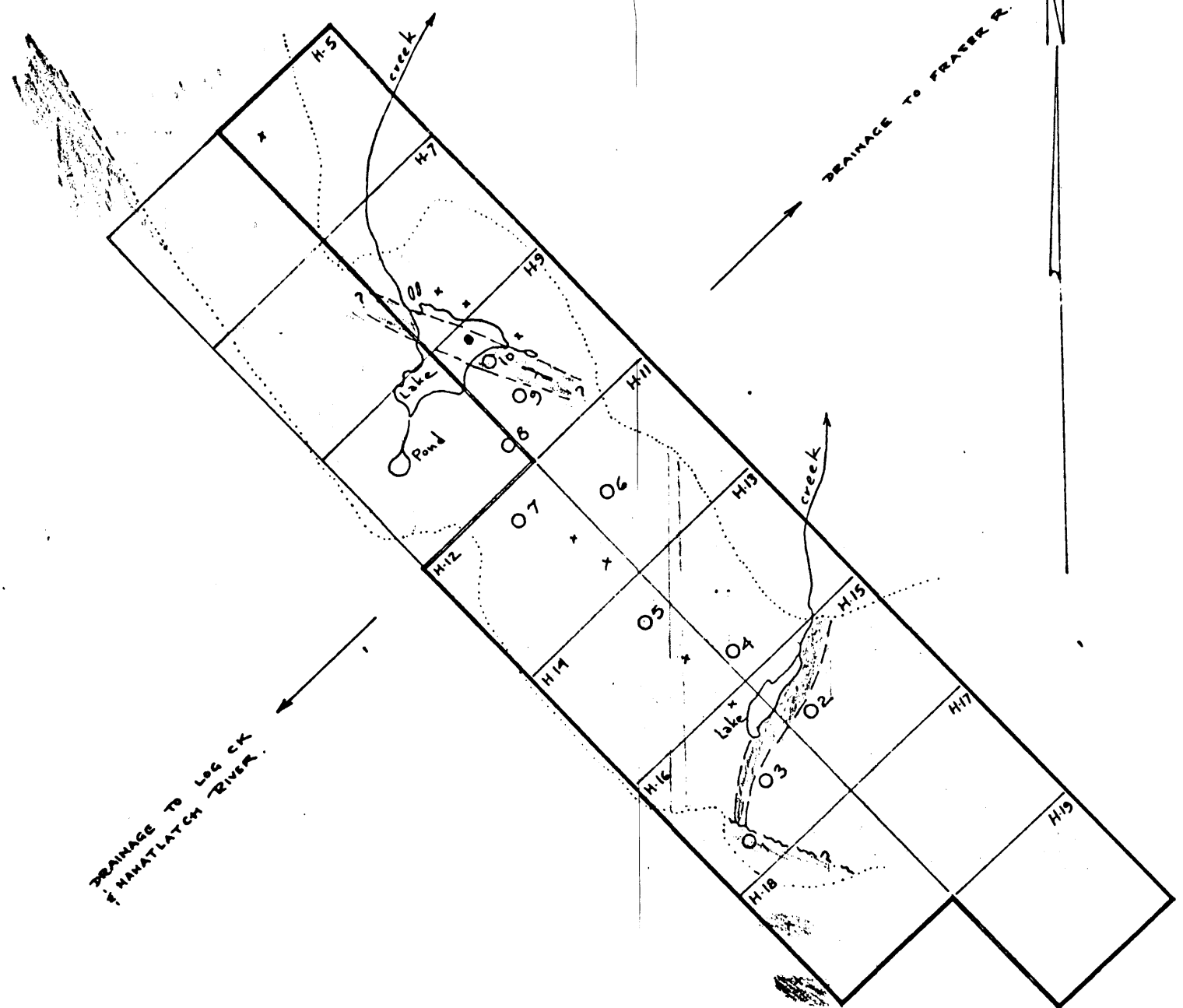
A geological map of the subject claims on a scale of one inch to 1500 feet is shown in Figure 1. The principal rock is an ultramafic which underlies all the claims, at least in part. The ultramafic body is at least 12000 feet long and 3000 feet wide with its long axis trending northwest, parallel to the centre-line of the claim group.

The northern extension of the ultramafic is in contact with quartz diorite to the southwest. The northeast contact-rock is not known. The southern end of the ultramafic is in probable contact with phyllite to the southwest. In addition, a band of phyllite about 300 feet wide trending northeast is preserved in the ultramafic (Figure 1).

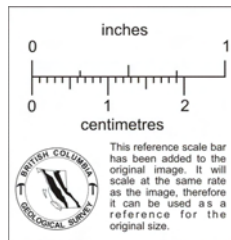
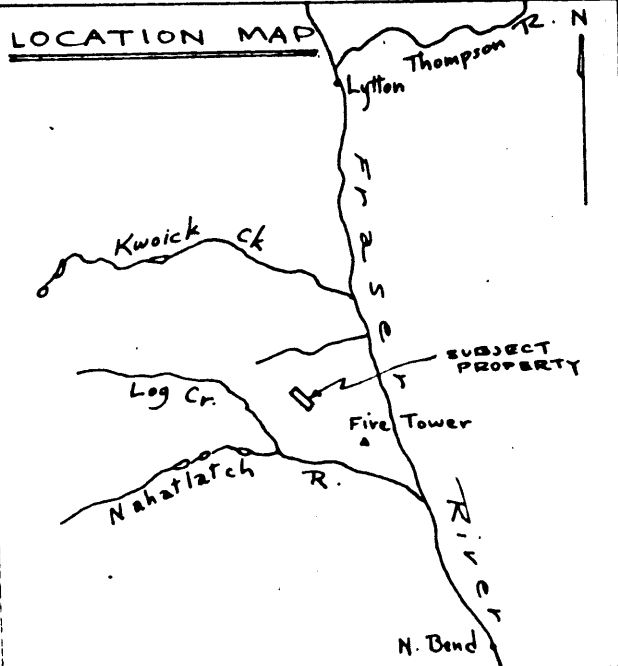
The ultramafic itself is buff to reddish brown on weathered surfaces, and dark green to black on fresh surfaces. The apparent weathering effects are less than $\frac{1}{4}$ inch in depth. The rock is fine grained and generally massive in texture. In thin section, it is observed to be composed mainly of

LEGEND


-  TALC
-  PERIDOTITE
-  PHYLLITE
-  QUARTZ DIORITE
-  SAMPLE SITE
-  OUTCROP CHECK POINT
-  CONTACTS: ROCK, OVERBURDEN.



LOCATION MAP



J.A. Chamberlain

 J.A. CHAMBERLAIN CONSULTANTS LTD. West Vancouver Canada		
NAHATLATCH PROJECT		
Geological Plan. MINERAL CLAIMS H-5, H-7, H-9 H-11 to H-19, incl. (KAMLOOPS M.D., BORDERING NEW WESTMINSTER M.D.)		
Scale 1" = 1500'	July 8, 1973	Fig. 1

serpentine with minor patches of carbonate. A single remnant grain of orthopyroxene occurs in one section. Secondary magnetite constitutes about 5 percent of the rock. A few scattered grains of chromite are noted in places in most handspecimens.

Two talc-rich zones were discovered during mapping of the claims, the main zone trending across the larger of the two lakes in the claim group (Figure 1). The talc is described in more detail under Economic Geology.

Economic Geology

General

The area west and southwest of Lytton contains several mineral showings, but no metal production has been achieved from this eastern segment of the coast range. McTaggart (1954; see References) lists the following properties within a few miles of the ultramafic belt discussed herein:

(a) Serpentine and Summit Groups (Gold prospect, about 2 miles northwest of the larger lake, shown in Figure 1).

(b) Paystreak Group (Silver prospect, about 4 miles northwest of the larger lake at Pyramid Mountain).

(c) Glacier Group (Gold-silver prospect, about 11 miles northwest of the larger lake, Figure 1).

(d) Clarke Group (Antimony prospect, south side of Skihist Mountain, about 15 miles northwest of the larger lake, Figure 1).

Nickel

Nine nickel assays were obtained from samples taken in the ultramafic. Results are given in Table 1 along with sample numbers which correspond to numbers shown on the map in Figure 1. The average of the 9 assays is 0.19% Ni.

Talc

Two talc zones were discovered during geological mapping. The south zone appears to occupy a shear zone, indicated at station 1 in Figure 1. Outcrop is scarce at this location, so little additional information was obtained.

The north zone occurs at the larger lake, also shown in Figure 1. The talc zone strikes 110° and dips 55° south. Its apparent width at surface is at least 300 feet, with a known strike length of 700 feet and a possible strike length in excess of 2000 feet.

The north zone talc weathers to a creamy buff. Surface samples are characterized by the presence of disseminations of brown oxide. These seem to decrease with depth and are no doubt related to surface weathering. The fresher talcose samples are pale green to white in colour and contain small quantities of disseminated magnetite as obvious impurities. Scrapings of talc are white to greenish white in colour. Under the microscope, the talc constitutes about 50 percent of the rock, the balance being mainly carbonate, probably magnesite (Figure 2). The talc exhibits a characteristic platey, shredded texture, without development of a schistose fabric. Parts of the talc in outcrop, however, appear to be strongly schistose, parallel to the trend of the body as a whole.

Assuming that the talc zone as a whole contains 50 percent talc and has a conservative strike-length of 700 feet, this suggests talc tonnages on the order of 10,000 tons per vertical foot. The possible strike-length of 2000 feet suggests talc tonnages on the order of 30,000 tons per vertical foot.

The principal uses for talc are as fillers in paints, ceramics, roofing, paper and rubber industries. It is also used as talcum powder, tailor's chalk and in slate pencils. Some slab talc is used as laboratory table tops and sinks. Talc (soapstone) is finding increasing use as a carving medium for both Eskimo and non-Eskimo artists.

Conclusions

The 12 contiguous subject claims are largely underlain by serpentinized ultramafic rock. One of two talc zones discovered during mapping has a talc potential from 10,000 tons (probable) to 30,000 tons (possible) per vertical foot available to surface mining methods.


Research should be carried out to determine the extent of the talc market in western Canada and northwestern United States. To the writer's knowledge, no talc is currently being produced in the west, though one company (Black Mastodon Minerals Ltd.) attempted to develop a talc deposit in 1966 at Ruby Creek, west of Hope, B.C. This project was terminated, but whether for reasons of ore or marketing problems is not known.

If the market research is favourable, a bulk sample of several hundred pounds of fresh talc should be obtained and tested for grade, colour and related physical characteristics. This work would be followed by test drilling of the talc zone to prove continuity, after which a decision to proceed with a full scale feasibility study would be undertaken.

In summary, the sequence of contingent studies leading to development of the talc body should be:

- (a) market research
- (b) evaluation of surface samples
- (c) drilling; confirmation of grade and tonnage
- (d) feasibility study

Respectfully submitted



J. A. Chamberlain, P.Eng., Ph.D.

July 25, 1973

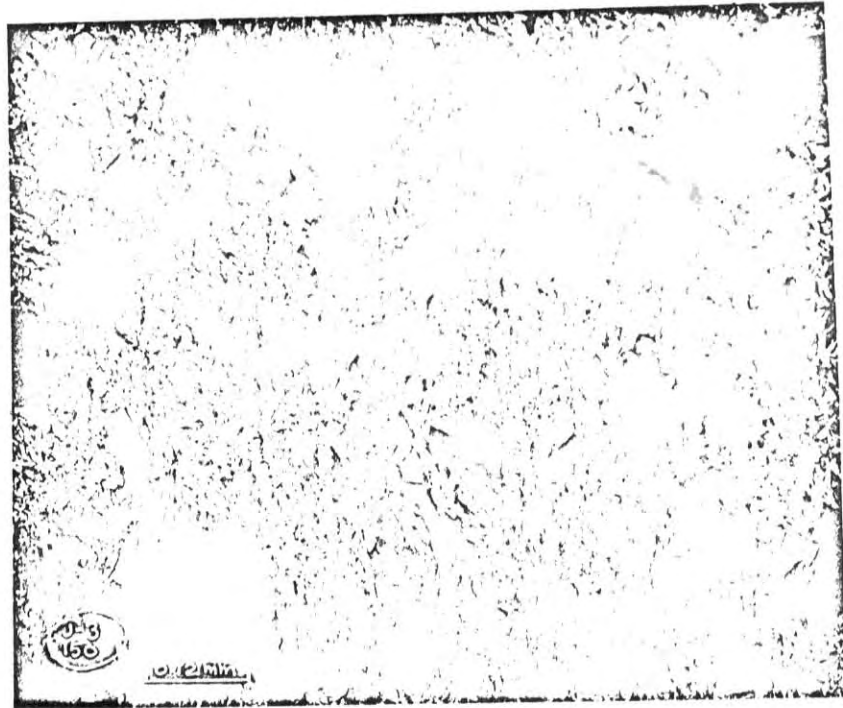


Figure 2. Thin section J3-150, showing typical textures and fabric of talc. Black areas are carbonate or voids in section. Crossed nicols. Mag. = 110 x.

Table 1

Sample Numbering Key and Nickel Assay Results

Sample No. (Map, Fig. 1)	Sample Tag No.	Thin Section No.	Polished Section No.	Nickel (%)
1	1681	-	-	-
2	1682	-	-	0.21
3	1683	J3-147	-	0.21
4	1684	J3-148	-	0.22
5	1685	-	J3-144	0.18
6	1686	J3-149	-	0.21
7	1687	-	J3-145	0.12
8	1688	-	J3-146	0.21
9	1689	-	-	0.20
10	1690	J3-150	-	-
-	1691	-	-	0.19

Appendix

Nickel Assays, Bondar-Clegg


875 Esquimalt Avenue
West Vancouver, B. C.

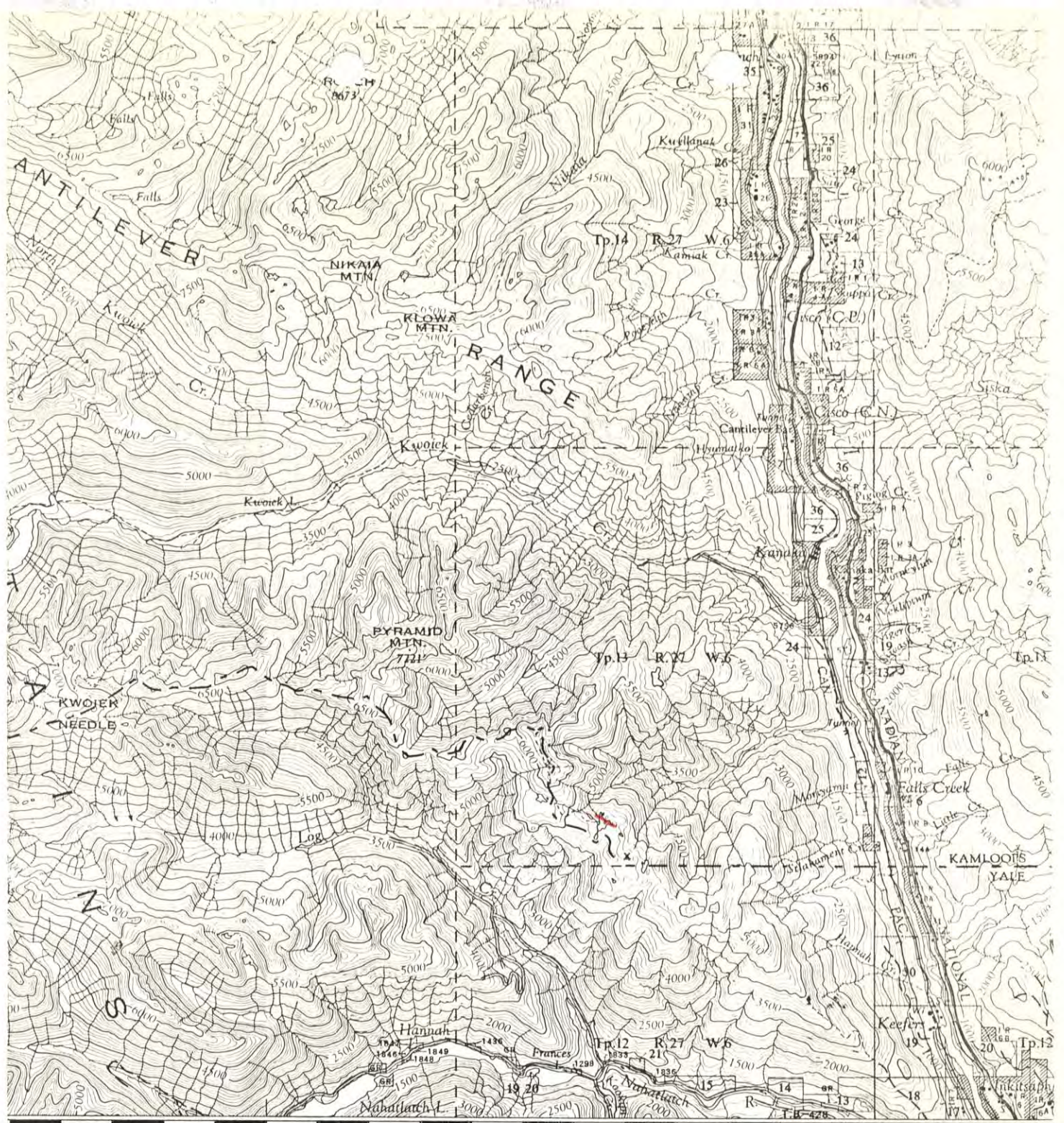
CERTIFICATE OF ASSAY

Samples submitted: July 6, 1973
Results completed: July 9, 1973

I hereby certify that the following are the results of assays made by us upon the herein described ore samples.

MARKED	GOLD		SILVER	Ni							TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
1682				0.21							
1683				0.21							
1684				0.22							
1685				0.18							
1686				0.21							
1687				0.12							
1688				0.21							
1689				0.20							
1691				0.19							


Registered Assayer, Province of British Columbia

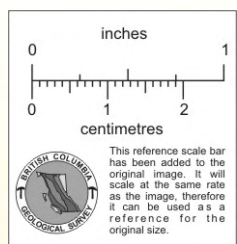


45'

30'
To Yale—39 M

REFERENCE

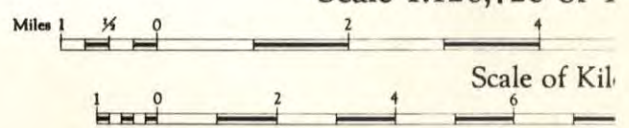
- Land alienated or covered by application under the Land Act
- Surveyed Timber Lease, Licence, or Berth
- Indian Reserve
- Government Reserve
- Land District Boundary
- Provincial Forest Boundary
- Tree Farm Licence
- Municipality
- Water Supply Area
- Park
- Park less than 10 acres
- Campground
- Forest Service Lookout
- Post Office
- School
- Church
- Hospital



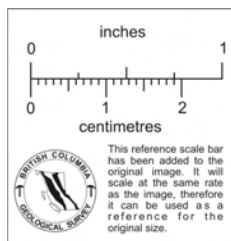
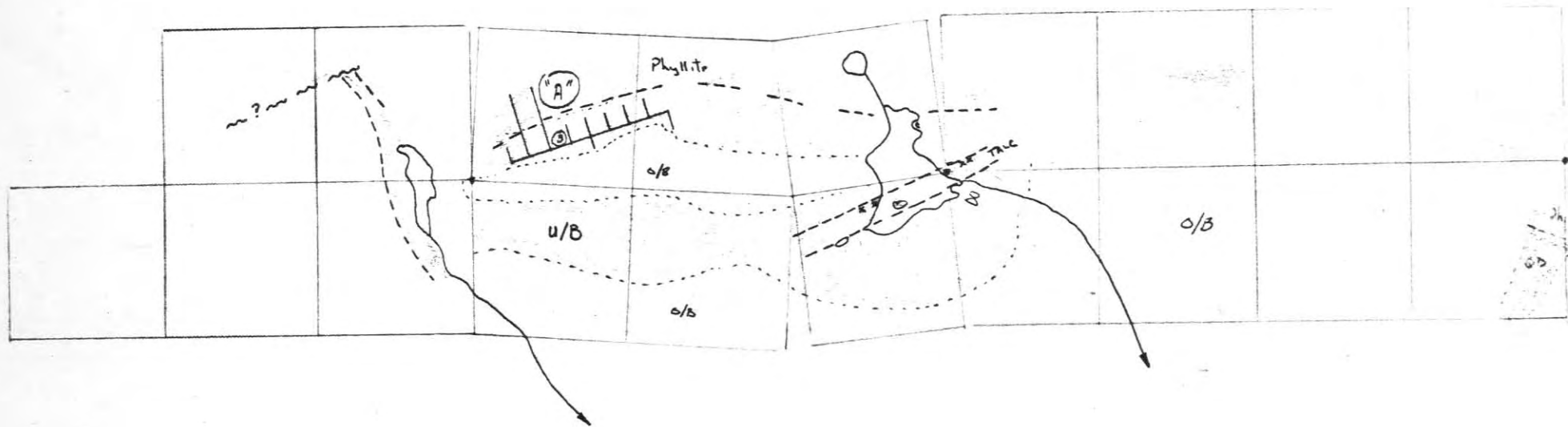
92 I SW
1" = 2 miles

LYTT
BRITISH CC

Scale 1:126,720 or 1



Approximate Magnetic Declination 22'
Decreasing approximate



NAHATLATCH NICKEL MINES LTD (N.P.L.)

"H" CLAIM GROUP

Property Geology

1" = 1500'

Aug, 1973