

1040

REPORT

GEOCHEMICAL SURVEY

of the

R.T. GROUP, KATHLEEN MTN.

SIMILKAMEEN M.D., B.C.

49⁰, 120⁰, S.E.

MAY 18, 1967

by

W. M. SHARP, P. ENG.

Consulting Geological Engineer

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Map in Pocket:

/ Preliminary Compilation, Geochemical Survey, R.T. Group,
Kathleen Mountain Mines Ltd.;

Scale; 1" = 400'

January, 1967.

W.H. Sharp, P. Eng.,
(Consultant)

WILLIAM M. SHARP, P. ENG.
CONSULTING GEOLOGICAL ENGINEER

STE. 808, 900 WEST HASTINGS ST.
VANCOUVER 1, B. C.

President and Directors,
Kathleen Mountain Mines Ltd. (N.P.L.),
c/o Mr. J.R. Trepanier,
716 - 602 West Hastings Street,
Vancouver 2, B.C.

18th May, 1967.

Gentlemen:

With this is my report; GEOCHEMICAL SURVEY of the R.T.
GROUP, KATHLEEN MTN., SIMILKAMEEN M.D., B.C.

Introduction

This report deals with the field methods employed and the results obtained from a geochemical survey and preliminary trenching of the R.T. claim group. This investigation was recommended to the Company following the writer's preliminary geological examination and geochemical reconnaissance of May 3, 1966.

Property; Location and Access

The R.T. group consists of a block of 57 adjoining located claims. The validity of the locations has been established by Mr. L. Hachey, the Company's field supervisor. This was accomplished by way of individual post inspections, and by locating these with reference to the grid established for geochemical survey control.

The group is situated on the southeasterly slope of Kathleen Mtn. in the area closely north and east of Thirak - a flag-stop on the Trout Creek section of the Canadian Pacific Railway's Princeton - Penticton line.

The extent and composition of the claim group is shown on the accompanying drawing. The survey covered essentially the full area of the group.

The property is accessible by way of a fair gravelled road between Princeton and Summerlands, B.C., and which locally parallels the Thirsk section of the railway. The road distance from Summerland is about 25 miles, westerly. Access to all sections of the claim group is provided by a network of old logging roads.

SUMMARY OF SURVEY AND TRENCHING EXPENSE

(A) GEOCHEMICAL SURVEY:

Grid Preparation and Soil Sampling

Period: August - October, 1966

L. Joslin	1½ months @ \$350.00	\$425.00	
D. Pudlas	¾ " @ \$325.00	\$243.75	
L. Hall	½ " @ \$350.00	\$175.00	
J. Phillipzig	23 days	\$286.94	
L. Hall, payroll costs		84.37	
L. Hachey		<u>\$715.00</u>	<u>\$1,930.06</u>

Truck rental, fuel, lube, etc.	\$ 500.00
Small tools, pickets, flagging, hardware	\$ 200.00
Laboratory charges, soil assays	\$2,361.75
Preliminary geochemical reconnaissance, field May 3 - 4, 1966; W.M. Sharp, P.Eng. 1½ days @ \$100.00	<u>\$ 150.00</u>

Sub-Total (A) \$5,141.81

(B) TRENCHING GEOCHEMICAL ANOMALIES

Supervision, L. Hachey, 1 month, gross	\$ 650.00
Supervisor vehicle rental, 1 month	150.00
D-8 Ripper-dozer rental, Pooler Bros., Merritt, incl. equipment transport expenses	\$2,450.90
Service-operator vehicle rental, ½ ton truck	<u>100.00</u>

Sub-Total (B) \$3,350.90

GROSS EXPENSE (A) + (B) \$8,492.71

Apportionment of Gross Expense:

R.T.-W. group, 27 claims; $\frac{27}{57} \times 8492.71$ \$4,023.00

R.T.-E. group, 30 claims, $\frac{30}{57} \times 8492.71$ \$4,469.71

(check total) \$8492.71

DOMINION OF CANADA
PROVINCE OF BRITISH COLUMBIA
TO WIT:

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IN THE MATTER OF
KATHLEEN MOUNTAIN MINES LTD. (NPL)

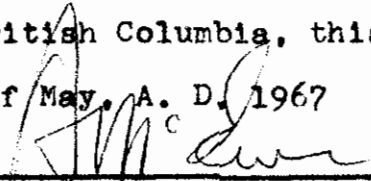
I, MARVIN GERALD KEMP, of 4339 Cambie Street, in the City of Vancouver, in the Province of British Columbia, DO SOLEMNLY DECLARE that:

1. I am the Secretary of Kathleen Mountain Mines Ltd. (NPL) and as such have knowledge of the matters herein deposed.

2. The Report of W. M. Sharp, P.Eng., dated 18th May 1967 was ordered by the Company and the information contained in the Summary of Survey and Trenching Expense therein was obtained from the books and records of the Company and all such amounts were truly expended by the Company.

AND I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

DECLARED before me at the City of Vancouver, in the Province of British Columbia, this 24th day of May, A. D. 1967


MARVIN GERALD KEMP

A Commissioner for taking Affidavits for British Columbia.

GEOLOGY

The claims area is entirely underlain by closely-phased differentiates of the regional caprey granodiorite batholith. An older biotite (hornblende) granodiorite is intruded by a younger siliceous, granitic phase. The R.T. group mineralization, consisting of vein, and random fracture-filling iron-zinc-lead-copper sulphides, with associated magnetite, appears to occur mainly in the siliceous granitic zones. Manganese alteration is conspicuous.

The significant structural feature consists of a general set of vein-shears and fracture systems striking northeasterly to easterly, and dipping at near-vertical angles. Mineralization apparently favours this general fracture set. Northerly, to northwesterly-trending fractures appear generally barren of mineralization.

GEOCHEMICAL SURVEY

1. Grid Preparation: The grid, shown on the accompanying map, was established on N-5 base-lines at 0E/W, 30E, 30W, and 60W. East-west grid-lines, at roughly 400-foot N-S intervals were established from these. This was done by blazing and brushing out lines set by compass-and-picket. These were stationed, on pickets or flagging, at 100-foot intervals.

2. Soil Sampling:

The technique was demonstrated by the writer during his preliminary investigation.

This was performed by excavating small pits to the "B" soil horizon, and taking a few ounces, or so of the finer material. A 2-man crew was normally assigned to this work; one excavating the pits and selecting the sample, the other placing the sample in a standard kraft paper bag, and marking the bag and marking the sample number on the line-station.

3. Laboratory Analysis:

Samples were dried, screened through 80-mesh non-contaminating screen. A portion of the minus-80 mesh soil was treated with hot HCl acid for extraction of the metals to be tested. This solution was analysed by the atomic absorption method by Bio Metals Corp. Laboratory, North Vancouver, B.C.

All samples were tested for zinc; alternate samples were tested for copper. The total zinc and copper contents were reported in parts-per-million. These are recorded on the accompanying map.

SUMMARY AND RECOMMENDATIONS

Major and minor zinc (Cu) soil anomalies, "A" and "B", occur within a central, northerly section of the claim group. Subsequent preliminary stripping of these revealed minor amounts of malachite, chalcopyrite, (plus bornite?) and magnetite within fractured and altered areas of the granitic bedrock. Mineralization evidently occurs on zones of N.E.-striking fractures.

A second major zone, anomaly "C", was outlined within the southerly section of the group. Prospect 'dozer trenches here revealed minor amounts of malachite, associated with a biotite-rich phase of the intrusive. Conspicuous manganese alteration featured the exposure containing the best visible mineralization. The shape of this anomaly suggests an E-W trending zone of mineralization.

A third anomaly of significant areal extent, and pronounced W-N.W. trend is situated within the southwesterly corner of the property. Because of its situation over steep slopes and rock bluffs, it could not be tested by bulldozer trenching.

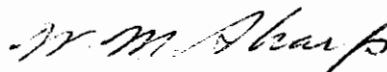
The geochemical survey has been successful in delineating three major Zn (CU) soil anomalies, and one of minor extent.

Preliminary bulldozer trenching has substantiated the existence of bedrock mineralization within the three areas upon which the ripper-dozer could function.

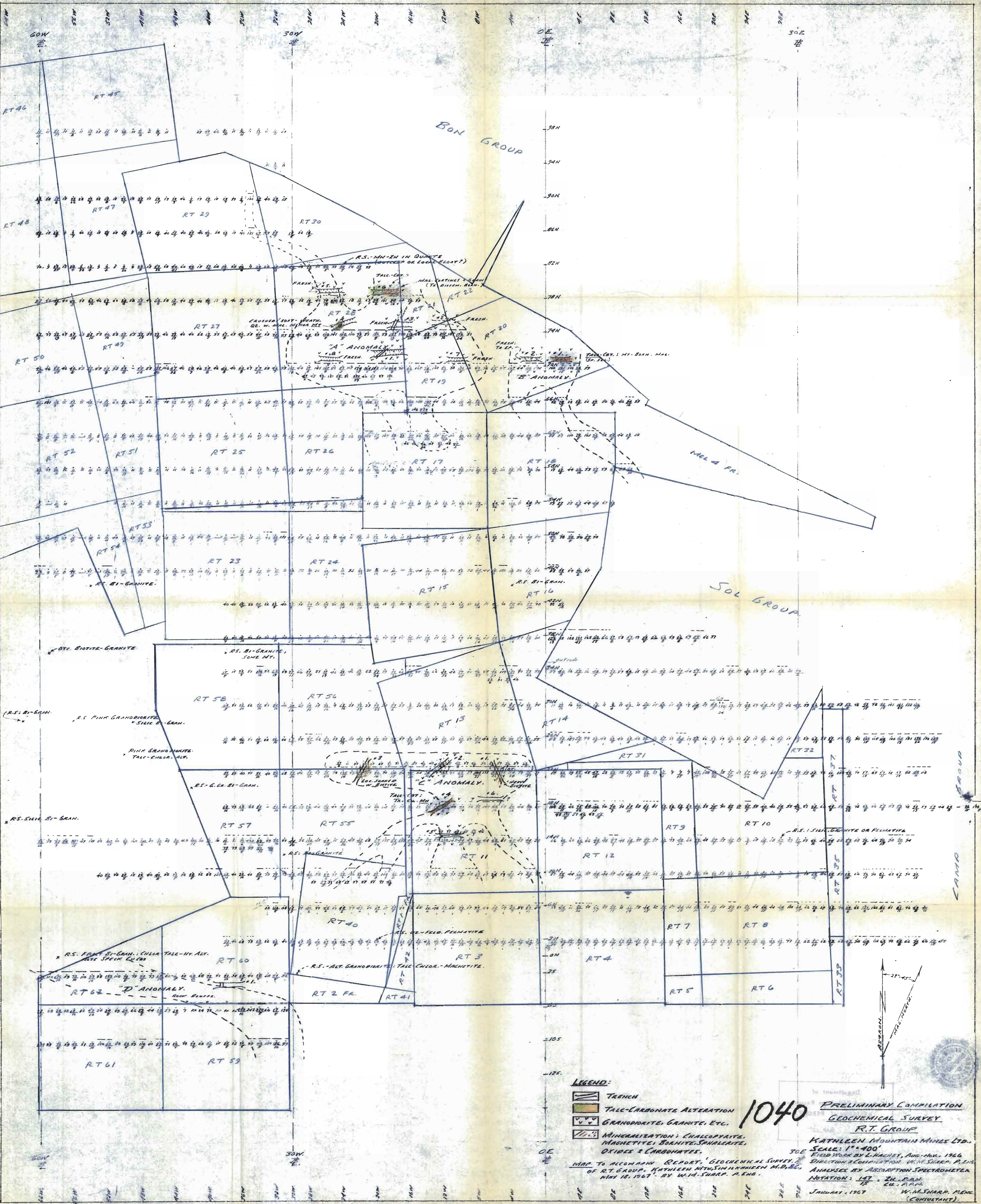
Mineralization consists of sparsely-dispersed chalcopyrite, bornite, and zinc blende in fractured talc-carbonate, or biotite-altered granitic rocks. Magnetite and/or pyrite form conspicuous accessory minerals.

In view of the fact that exploration to date has provided only rather preliminary indications of the degree and extent of near-surface mineralization, the writer recommends that this be followed up by appropriate geophysical survey techniques. Following this, additional physical exploratory work may be planned.

Respectfully submitted,



W. M. Sharp, P. Eng.



LEGEND:
TRENCH
TALC-CARBONATE ALTERATION
GRANODIORITE, GRANITE, ETC.
MINERALIZATION: CHALCOPYRITE, MAGNETITE, BORNITE, SPHALERITE, OXIDES & CARBONATES.

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PRELIMINARY COMPILATION
GEOCHEMICAL SURVEY
R.T. GROUP

KATHLEEN MOUNTAIN MINES LTD.
SCALE: 1" = 400'
FIELD WORK BY L. HACHEY, Aug.-Nov. 1966
DIRECTION & COMPILATION: W.M. SHARP, P. ENG.
ANALYSES BY ABSORPTION SPECTROMETER
NOTATION: 147 - ZIL. DAN. CU. A.P.M.
JANUARY, 1967 W.M. SHARP, P. ENG. (CONSULTANT)