

Geochemical and Geological Survey

of the

BOLT CLAIM

SKEENA MINING DIVISION

103I/1W

(54°11" North and 128°26' West)

OWNED and operated by

Canadian Nickel Company Ltd.  
80-10551 Shellbridge Way  
Richmond, B.C.  
V6X 2W8

by

Peter Peto, Ph.D.

July 25, 1981

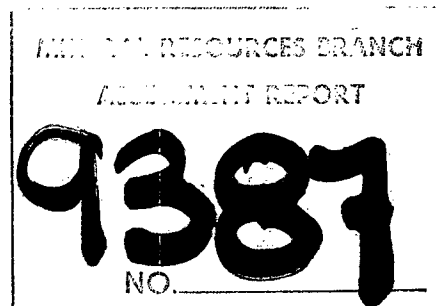


TABLE OF CONTENTS

	Page
Introduction .....	1
Regional Geology .....	1
Property Geology .....	1
Geochemical Survey .....	3
Conclusions and Recommendations.....	3
Cost Statement .....	4
Author's Qualifications.....	5
 <u>List of Illustrations</u>	
Figure 1. Property Location Map (1:250,000).....	2
Figure 2. Geology and Sample Location Map .....	(in pocket)
 <u>Appendix</u>	
Analytical Results .....	6, 7, 8

## INTRODUCTION

The BOLT claim is located some 38 kilometers south-southeast of Terrace and 20 kilometers north-east of Kitimat. The claims cover a northwesterly draining tributary of Bolton Creek which flows into McKay Creek, a tributary of the Kitimat River, draining the central Coast Mountains (Fig. 1). The claims are about 20 minutes flying time by helicopter from Terrace, however, a new logging road, along the Kitimat River, is presently within five miles of the property. The claim consists of 20 units, four south and five east, which were staked by Canico on June 23, 1980, on the basis of an anomalous stream sediment reported by the B.C. Ministry of Energy, Mines and Petroleum Resources in geochemical release on June 6, 1980. Previous property examinations conducted on June 22 and 25, 1980, consisted of stream sediment and rock chip sampling along the major creekbeds draining the property. Molybdenite and chalcopyrite mineralization were observed to occur in milky quartz veins cutting granodiorites exposed in creekbeds.

These favourable preliminary investigations were followed up in greater detail by reconnaissance soil sampling and mapping, within the drainage basin, conducted over a period of nine days, from June 16 to 24, 1981, by two men camped on the property. The results are reported herein. Unfortunately, extensive snow cover, heavy rain, thick bush and steep terrain hampered effective exploration of the property, however, sufficient encouragement was obtained to warrant further investigation.

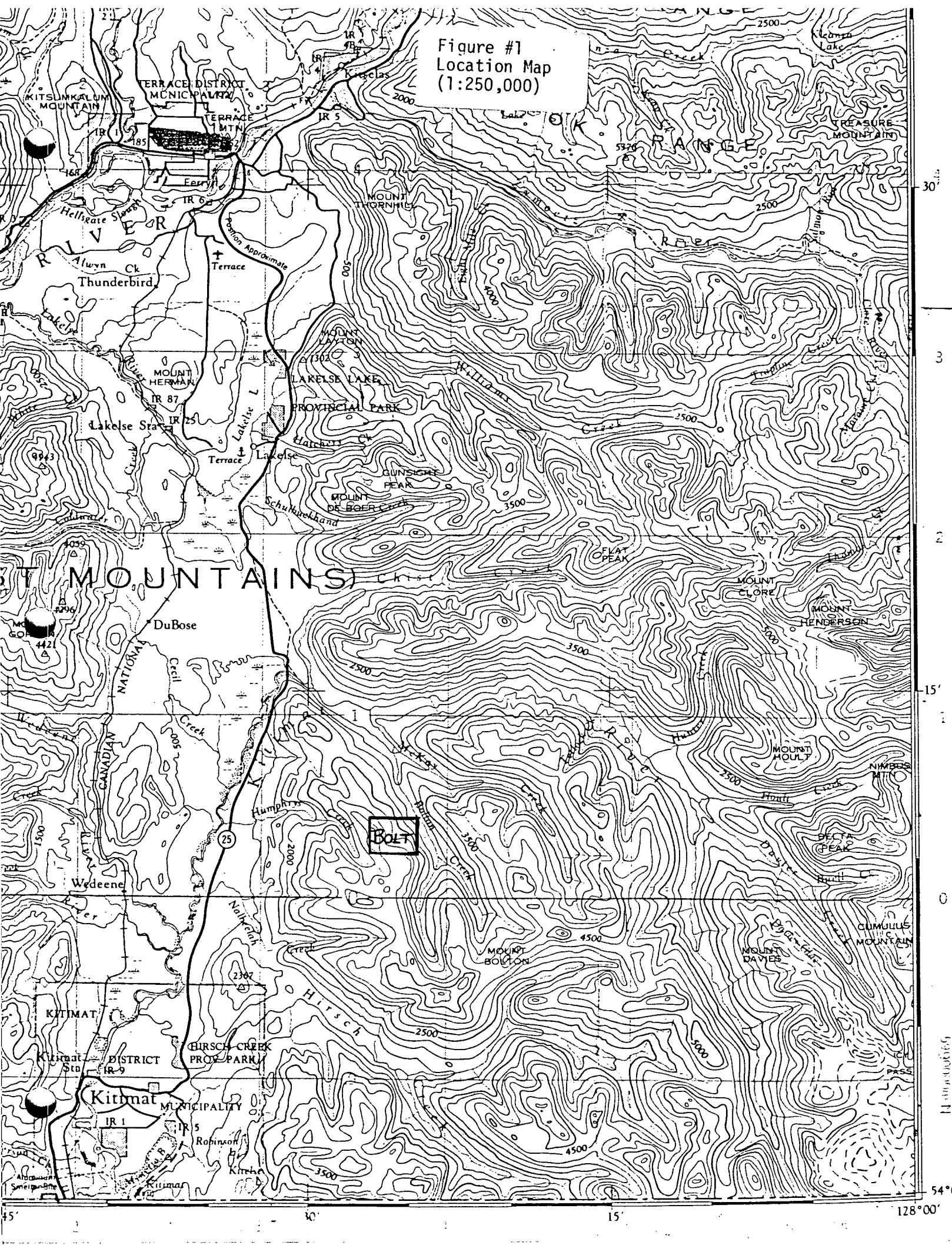
## REGIONAL GEOLOGY

The BOLT claim is underlain by a uniform, medium to coarse grained, mottled, hornblende-biotite granodiorite, of probable Upper Cretaceous age, belonging to the Coast Mountains batholithic complex.

## PROPERTY GEOLOGY

Geological mapping along flagged grid lines, spaced 200 meters apart, indicate that the white granodiorite is intruded by a pink, medium to fine grained, leucogranite boss. The granite in turn is cut by quartz veinlets, which also extend into the granodiorite. The veins carry abundant specular hematite and minor pyrite associated with lesser amounts of disseminated chalcopyrite and molybdenite locally. Aplite veins also cut the granodiorites, which in turn are intruded by northwest trending, unmineralized, diabase

Figure #1  
Location Map  
(1:250,000)



dykes which appear conformable to the major fracture direction on the claims.

#### GEOCHEMICAL SURVEY

A geochemical survey, consisting of 5 km. of flagged grid lines, covering the upper drainage basin of the claims, resulted in the collection of 28 rock chip samples and 45 soil samples which were analyzed for Cu and Mo, by Acme Analytical Laboratories Ltd. The samples were partially digested in aqua regia, and the acid leach analyzed by atomic absorption spectrometre. Analytical results are illustrated in figure 2 and appended to this report.

Although Cu and Mo concentrations are variable in detail there can be little doubt that the data indicates the presence of a relatively large, anomalous, primary dispersion halo associated with the leucogranite boss. The Cu-Mo anomaly appears to be at least 700 meters across and open to the east.

#### CONCLUSIONS AND RECOMMENDATIONS

The BOLT claim is underlain by Upper Cretaceous granodiorite, intruded by quartz and aplite veins, emanating from a leucogranite boss carrying chalcopyrite and molybdenite mineralization. Rock and soil sampling indicate that a primary dispersion halo, at least 700 meters across and open to the east, coincides with the leucogranite boss.

In view of the favourable geological and geochemical environment, it is recommended that the property be further evaluated by a more thorough surface program involving grid preparation, prospecting, detailed geological mapping, soil sampling, ground magnetometer, VLF-EM surveys, and a preliminary I.P. orientation survey in order to help define suitable targets for drill testing in due course. This program should be carried out by professional exploration personnel capable of working effectively in steep terrain, insane bush and inclement conditions.

COST STATEMENT

Wages:

Field Examination:

Alex Tworo - 9 days @ \$85/day	\$ 765.00	
Dave Magnusen - 9 days @ \$64/day	576.00	
Peter Peto - 1 day @ \$198/day	198.00	

Report Preparation:

A. Tworo - 1 day @ \$85/day	85.00	
P. Peto - 1 day @ \$198/day	<u>198.00</u>	

Sub-total: \$1822.00

Food Costs

19 man-days @ \$20/man-day	380.00	380.00
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Transportation Costs

Helicopter - 4.2 hours @ \$425/hour	\$1785.00	
Freight	16.00	

Sub-total: \$1801.00

Analytical Costs

73 Geochem analysis @ \$2.25/sample	164.00	
28 rock preparations @ \$2.25/sample	63.00	
45 soil preparations @ \$.40/sample	18.00	

Sub-total: 245.00

Typing & Photocopying Services:

	225.00	<u>225.00</u>
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Sub-total: \$4473.00

Overhead & Administration @ 12%

		537.00
NET COSTS:		<u><u>\$5010.00</u></u>

Author's Qualifications

I, Peter S. Peto, hereby certify as follows:

I am a graduate geologist with B.Sc. and M.Sc. degrees from the University of Alberta and a Ph.D. degree from the University of Manchester in England.

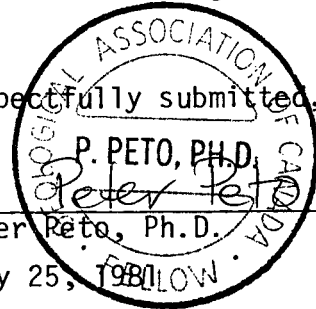
I am a registered member, in good standing, of the Geological Association of Canada.

I am presently employed in the capacity of project geologist with Canadian Nickel Company Limited in the Vancouver district office.

I have been practicing my profession since 1970.

I have prepared this work assessment report on the work performed by Alex Tworo and Dave Magnusen, under my supervision, as agents for Canico.

Respectfully submitted,



Peter Peto, Ph.D.

July 25, 1981



To: Canadian Nickel Co. Ltd.,  
80 - 10551 Shellbridge Way,  
Richmond, B.C.  
V6X 2W9

File No. 81-0603

Type of Samples Rock

Disposition \_\_\_\_\_

### GEOCHEMICAL ASSAY CERTIFICATE

Property : BOLT CREEK

SAMPLE No.	Mo	Cu																			
RX 042601	11	245																			1
042602	1	108																			2
042603	1	35																			3
042604	1	11																			4
042605	230	198																			5
042606	1	10																			6
042607	1	14																			7
042608	1	30																			8
042609	1	21																			9
042610	1	8																			10
042611	270	108																			11
042612	590	120																			12
042613	9	12																			13
042614	5	82																			14
042615	1	10																			15
042616	42	68																			16
042617	1	24																			17
042618	1	38																			18
042619	1	16																			19
042620	38	210																			20
042621	1	52																			21
042622	1	4																			22
042623	1	6																			23
042624	2	20																			24
042625	1	8																			25
042626	180	104																			26
042627	1	6																			27
RX 042628	1	6																			28
																					29
																					30
																					31
																					32
																					33
																					34
																					35
																					36
																					37
																					38
																					39
																					40

All reports are the confidential property of clients  
All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 26, 1981

DATE REPORTS MAILED July 4, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Canadian Nickel Co. Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0603

Type of Samples Soils

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Mo	Cu																			
SX 85601	51	15																			1
85602	1	7																			2
85603	1	14																			3
85604	34	110																			4
85605	1	5																			5
85606	6	13																			6
85607	1	13																			7
85608	1	9																			8
85609	120	138																			9
85610	9	26																			10
85611	16	58																			11
85612	7	22																			12
85613	44	260																			13
85614	11	38																			14
85615	1	15																			15
85616	11	106																			16
85617	11	62																			17
85618	45	38																			18
85619	42	24																			19
SX 85620	19	26																			20
																					21
SX 85621	11	20																			22
85622	5	7																			23
85623	34	98																			24
85624	7	36																			25
85625	1	7																			26
85626	1	20																			27
85627	47	12																			28
85628	1	4																			29
85629	38	22																			30
85630	27	64																			31
85631	9	24																			32
85632	1	5																			33
85633	5	48																			34
85634	5	10																			35
85635	1	17																			36
85636	1	6																			37
SX 85637	1	4																			38
																					39
																					40

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DIGESTION:.....

DETERMINATION:.....

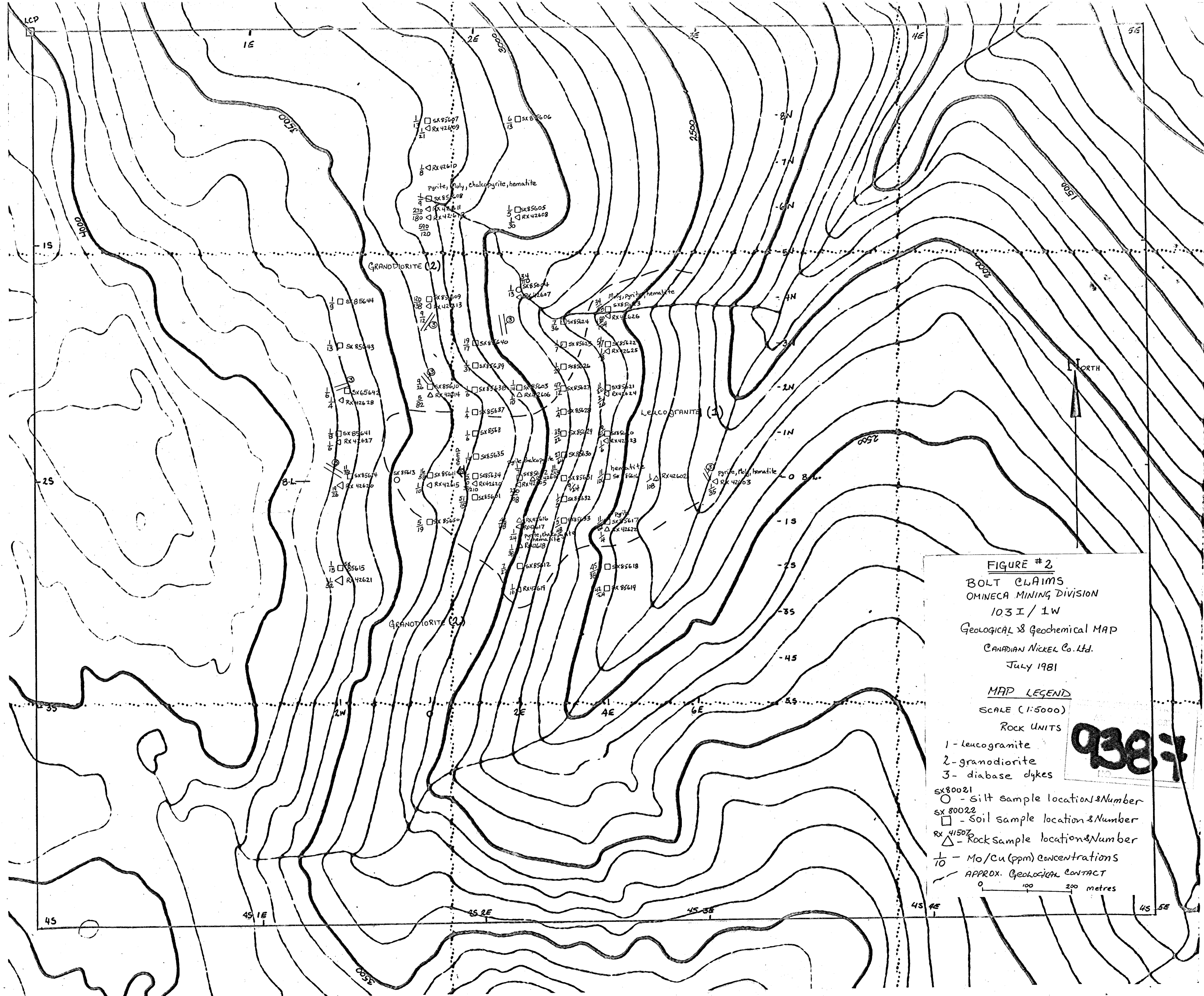
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ASSAYER *Deane Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





**FIGURE #2**  
 BOLT CLAIMS  
 OMINICA MINING DIVISION  
 103 I / 1 W  
 GEOLOGICAL & GEOCHEMICAL MAP  
 CANADIAN NICKEL Co. Ltd.  
 July 1981

**MAP LEGEND**  
 SCALE (1:5000)

**ROCK UNITS**

- 1 - leucogranite
- 2 - granodiorite
- 3 - diabase dykes

SX 80021  
 ○ - silt sample location & Number

SX 80022  
 □ - soil sample location & Number

RX 41507  
 △ - rock sample location & Number

1/10 - Mo/Cu (ppm) concentrations

--- APPROX. GEOLOGICAL CONTACT

0 100 200 metres

**9387**