



exploration ltd.

82-51-10/25  
GEOLOGY · GEOPHYSICS  
MINING ENGINEERING

4570 HOSKINS ROAD, NORTH VANCOUVER, B. C.  
TELEPHONE (604) 985-7921 V7K 2R1

GEOLOGICAL REPORT

on the

LEGATE CREEK PROPERTY

Lat 54° 38' Long 128° 10'

NTS 103 I/9

OMINECA M.D.

for

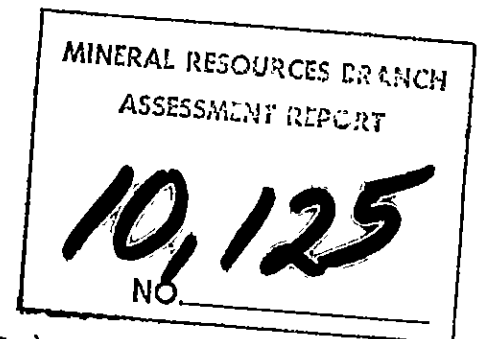
CARL CREEK RESOURCES LTD.

and

CLAUDE RESOURCES INC.

by

D. G. Allen, P. Eng. (B.C.)



December 15, 1981

North Vancouver, B.C.

## TABLE OF CONTENTS

	Page
SUMMARY	1
CONCLUSION	2
RECOMMENDATION	3
INTRODUCTION	4
CLAIM DATA	4
LOCATION AND ACCESS	4
PHYSIOGRAPHY	5
HISTORY	5
GEOLOGY	6
MINERALIZATION	6
ASSAY RESULTS	8
ECONOMIC POTENTIAL	12
REFERENCES	13

### ILLUSTRATIONS

Figure 1	Location Map 1:10,000,000	After page 4
Figure 2	Location Map 1:250,000	After page 5
Figure 3	Claim Map 1:50,000	After page 5
Figure 4	Geology and sample site 1:5000	In pocket
Figure 5	Schematic plan	After page 8

### PLATES

Plates 1 and 2	After page 5
Plate 3	After page 8
Plate 4	After page 12

### APPENDICES

Appendix I	Certificate
Appendix II	Cost Estimates
Appendix III	Assay and Geochemical Results
Appendix IV	Affidavit of Expenses

SUMMARY

Carl Creek Resources Ltd. and Claude Resources Inc. hold 3 claims, TOM, TOM 1, and CARL (31 units) under option from T. Conway and associates. Claims are situated at the head of Legate Creek in rugged Coast Range Mountains, 32 km northeast of Terrace, B.C. Access at present is by helicopter but logging roads extend up Legate Creek to within 5 km of the claim boundaries.

The area is underlain by Hazelton Group andesitic and rhyolitic volcanic rocks and diorite to quartz diorite of the Coast Plutonic Complex. These rocks are intruded by dikes and irregular bodies of quartz monzonite, felsite and quartz feldspar porphyry. A prominent quartz vein containing pyrite, galena, sphalerite, tetrahedrite and chalcopyrite with precious metals was discovered in the area prior to 1918 and was formerly known as the Zona May prospect. The main vein ranges in width from 0.2 to 3 metres and can be traced intermittently over a length of about 700 metres. Several smaller veins are present in the area but to date have been found to have little potential. Two relatively high grade shoots in the east and central part of the vein system with silver values up to 116 oz/ton over a vein length of 8 metres and gold values of 0.1 to 0.7 oz/ton over a length of 50 metres were located.

The more accessible parts of the main vein system were mapped and sampled in October 1981 by D.G. Allen and D.R.

MacQuarrie for Carl Creek Resources Ltd. and Claude Resources Inc. Results of this work constitute the basis of this report.

### CONCLUSION

Lode gold-silver mineralization on the southwest fork of Legate Creek fits identically with the descriptions of the Zona May prospect in previous government reports.

The main quartz vein is exposed discontinuously over a length of 700 metres and vertical range of 200 metres and has a prominent alteration envelope. Both features indicate a strong structure.

Two zones or shoots within the vein system warrant further work:

- 1) The gold-rich portion appears to be at least 50 metres long and is covered by overburden on the west end; and
- 2) a small sulfide-rich zone containing high silver values.

Topography in the area is difficult but road access to the lower part of the cirque would be relatively easy. Assuming slightly better metal prices and establishing one or two relatively high grade shoots, the prospect might be developed with a tramline and an adit from a shoulder at 1100 metres elevation.

RECOMMENDATION

Hand stripping of overburden and detailed sampling on the vein system is warranted to further define the extent of the gold-rich zone. Diamond drilling of this section would be worthwhile to establish depth continuity.

An initial phase (phase I) of surface blasting and sampling and drill site preparation is recommended. After surface sampling has defined the gold-rich portion along strike then follow-up diamond drilling should be carried out (phase II).

Further geological mapping over the claim area should be carried out during phase I. Special attention should be made to prospecting along dike contacts for other vein systems. Examination of the ridge on the east side of the claims should be carried out to check the vein extension along strike.

Estimated cost of phase I is \$35,000 and phase II is \$135,000. See Appendix II

CARL CREEK GOLD MINING LTD.  
 LEGATE CREEK PROPERTY  
 LOCATION MAP

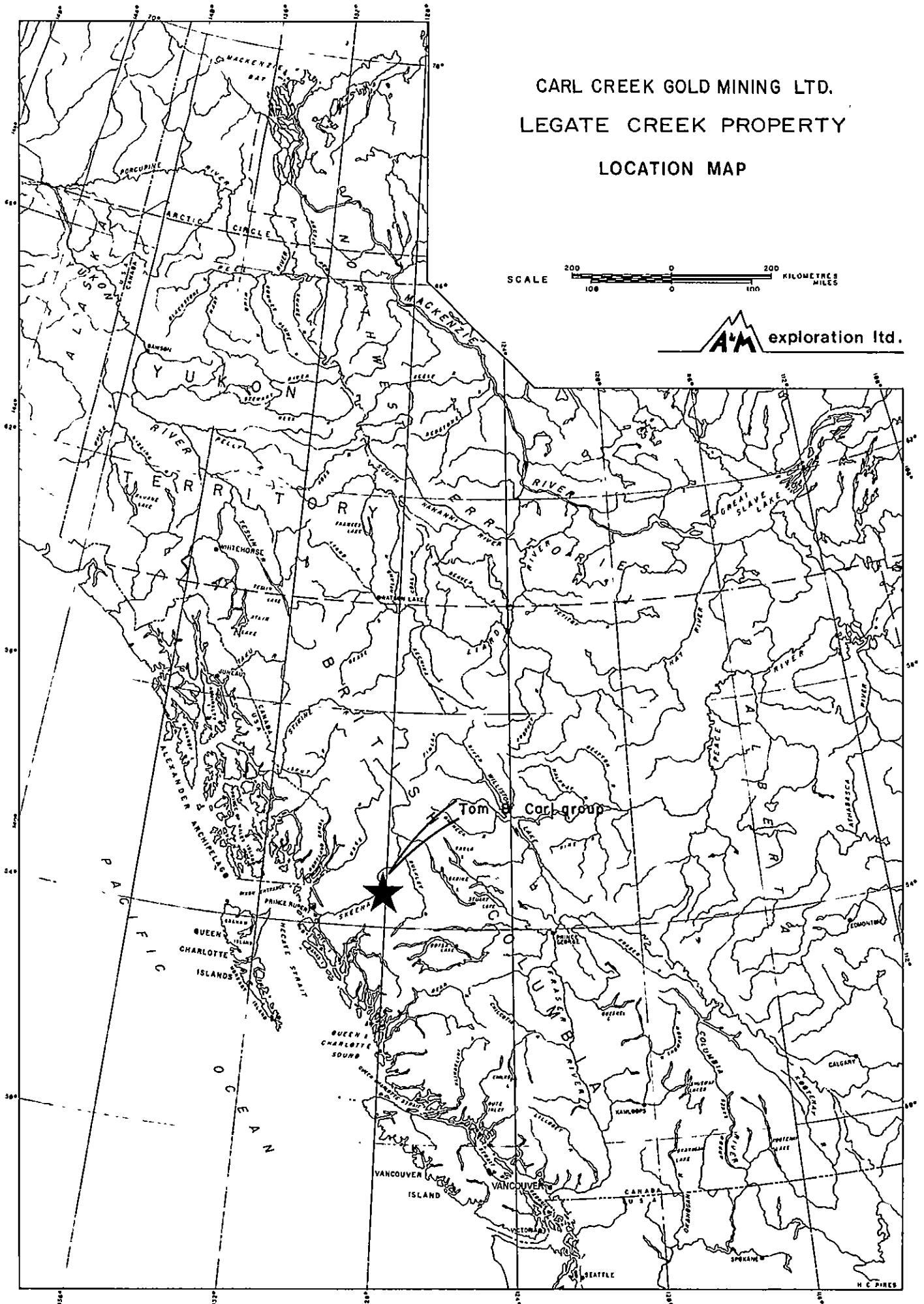
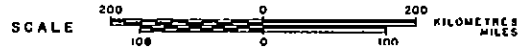
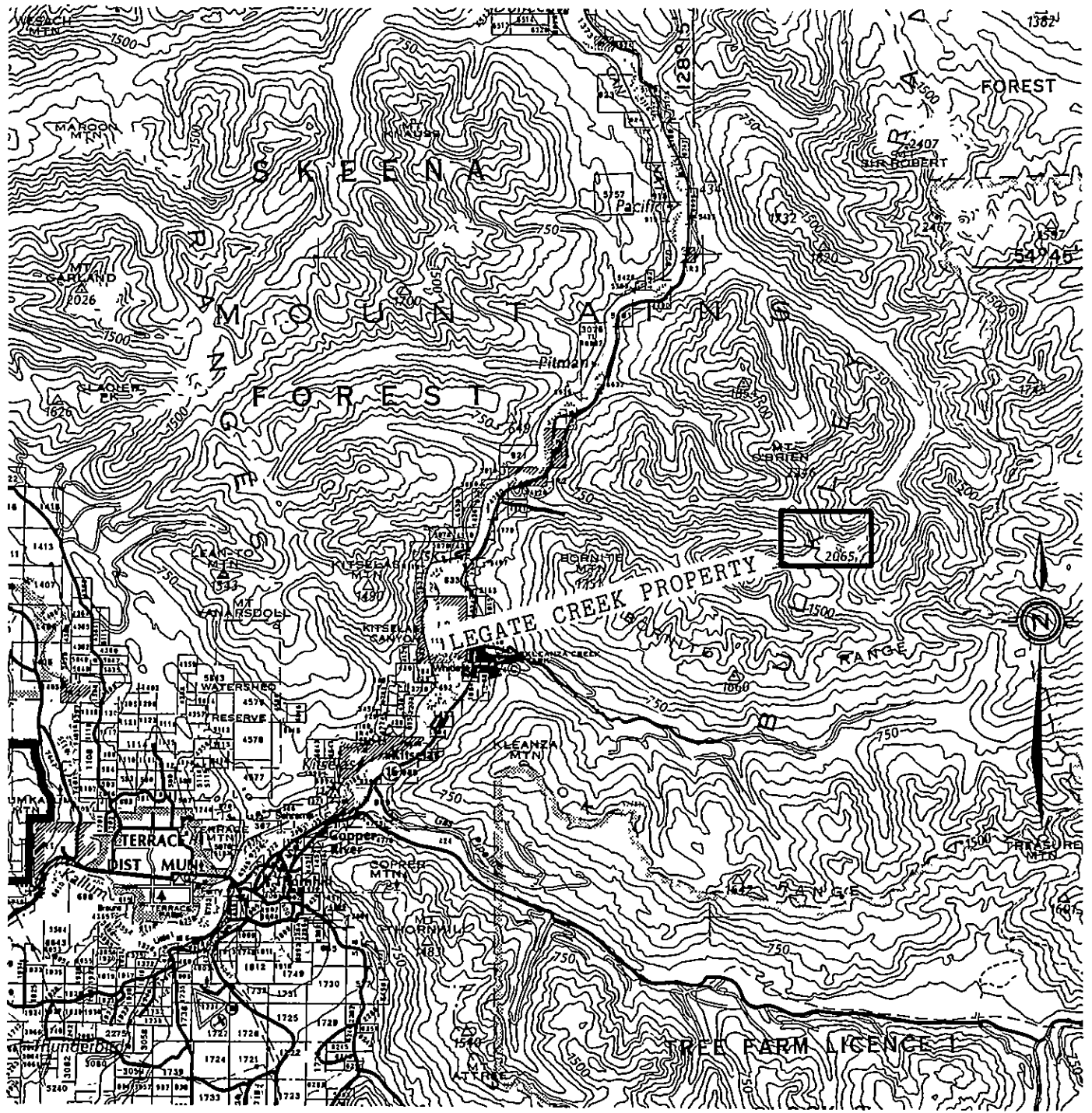
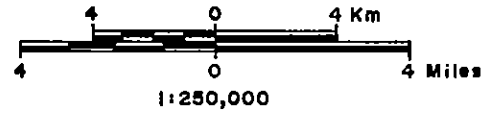


FIGURE - I



**CARL CREEK GOLD MINING LTD.  
 LEGATE CREEK PROPERTY  
 SKEENA MINING DIVISION — BRITISH COLUMBIA  
 LOCATION MAP**



## INTRODUCTION

Carl Creek Resources Ltd. and Claude Resources Inc. hold a joint venture basis, three claims TOM, TOM 1, and CARL (31 units) in the Legate Creek area. The property is held under option from T. Conway and associates. The claims cover lode gold-silver mineralization described in previous government reports as the Zona May showings.

G.M. Allen and D. Cuvelier of A & M Exploration Ltd. carried out initial sampling during the period July 16 to 19, 1981 but work at that time was hampered by snow conditions. This report summarizes results of work carried out by D.G. Allen and D.R. MacQuarrie at A & M Exploration Ltd. for Carl Creek Resources Ltd. and Claude Resources Inc. during the period October 17-20, 1981. Purpose of this work was to complete mapping and carry out sampling of all accessible parts of the vein system.

## CLAIM DATA

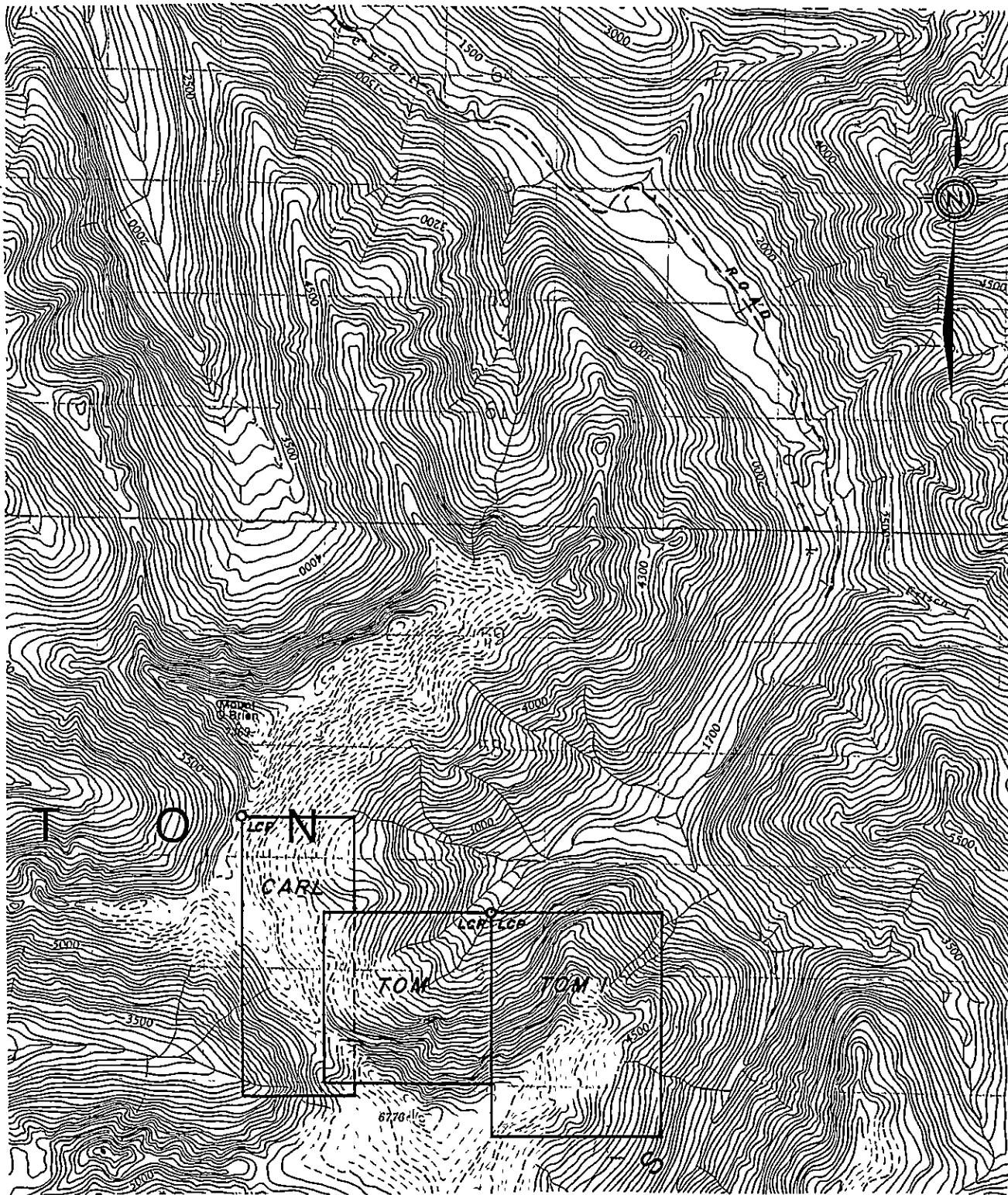
<u>NAME</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>
TOM	2908 (6)	June 18, 1983
TOM 1	2909 (6)	June 18, 1983
CARL	4104 (8)	August 14, 1982

The legal corner posts were observed and verified in the field by G. M. Allen.

## LOCATION AND ACCESS

The property is situated 32 km northeast of Terrace



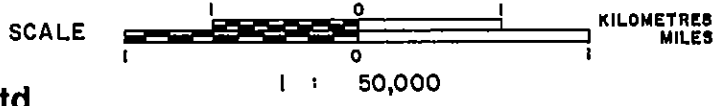


CARL CREEK GOLD MINING LTD.  
 LEGATE CREEK PROPERTY  
 TOM & CARL CLAIMS  
 SKEENA MINING DIVISION BRITISH COLUMBIA

N.T.S. 103 1/9

**CLAIM MAP**

*Donald B. Allen*



(figure 1). It lies at the head of the southwest branch of Legate Creek. Access at present is by helicopter, based in Terrace, but logging roads up Legate Creek are less than 5 km from the northern boundary of the claim group (figures 2 & 3).

### PHYSIOGRAPHY

The claims lie within the Hazelton Mountains of the eastern side of the Coast Range. Topography is steep and locally precipitous with alpine glaciers lying in higher parts of the mountain cirques. Elevations in the claim area range from 600 to 1900 metres (2000 to 6000 feet - plates 1 & 2).

### HISTORY

The Legate Creek area and vicinity have had a long mining history. Placer gold deposits were worked in Chimde-mash Creek, west of Legate Creek and in Kleanza Creek to the south. Some high grade ores from gold, silver, lead, zinc, and copper deposits in the area were developed and shipped in the 1920's and 1930's. These are described in Minister of Mines Annual Reports (1915, 1918, 1925, 1928), Kindle (1937) and Duffle and Souther (1967). There has been little activity since the 1930's because of access difficulty. With improved access by logging roads and the current metal prices many of these showings are being re-evaluated. The TOM claims were staked in June 1980 by T. Conway and preliminary evaluations

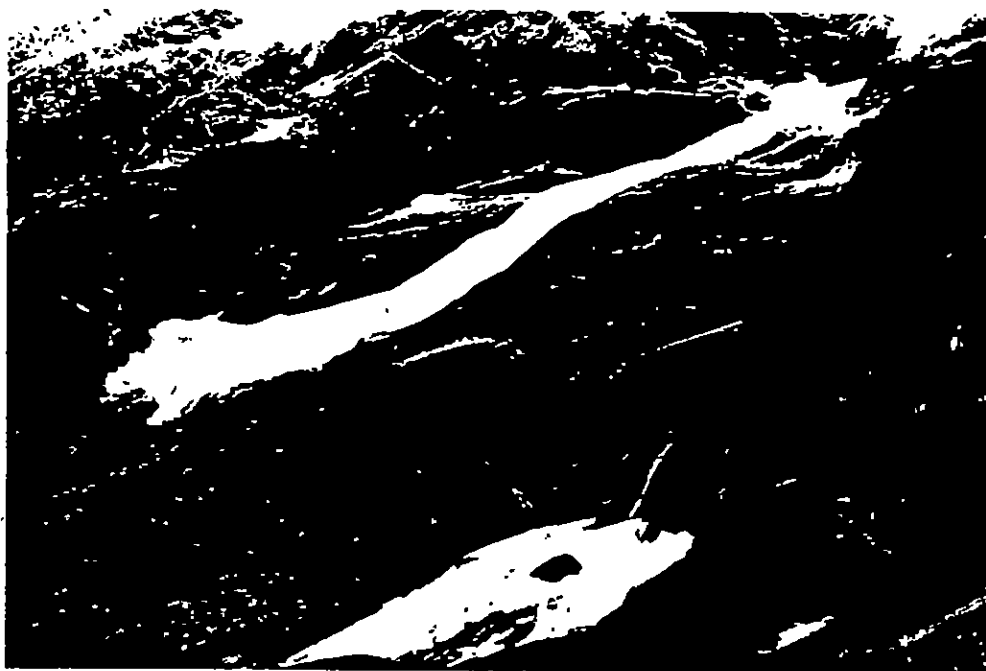


Plate 1. Photograph looking southeast showing vein system.

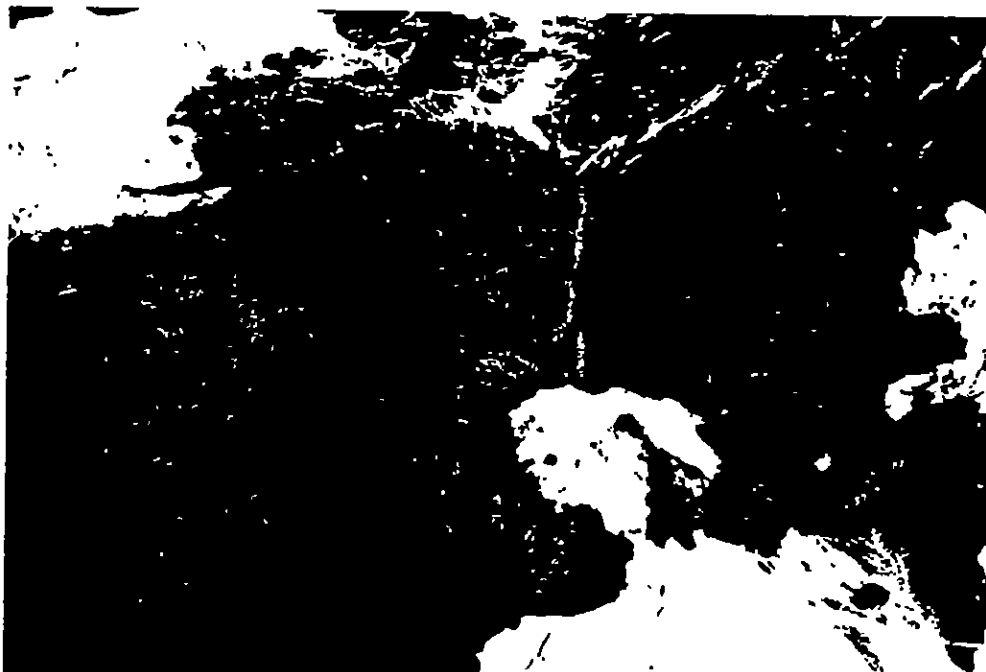


Plate 2. Photograph from air looking south.

carried out by G.M. Allen in May and July, 1981 (Allen and Allen, 1981).

### GEOLOGY

Oldest rocks in the area are Lower to Middle Jurassic Hazelton Group volcanic rocks which consist of various textured phases of andesite to rhyolite flows and breccias. (Unit 1, figure 4).

The volcanic rocks are intruded by a northeast trending tongue of diorite (unit 2) of the Coast Plutonic complex. The diorite is a coarse grained equigranular rock consisting of about 40% biotite and hornblende in a greenish grey feldspathic matrix.

Irregular bodies of quartz monzonite (unit 3) outcrop locally in the cirque area. The rock is medium grained has a fresh appearance and is light pinkish grey in color. It consists of about 25% biotite and hornblende disseminated in a quartzofeldspathic groundmass.

Dikes up to 7 metres wide are common in the area. Dike types include felsite, quartz-feldspar porphyry, feldspar porphyry and andesite (unit 4).

### MINERALIZATION

The main vein outcrops on the southeast side of the cirque basin. The vein was found to be exposed semi-

continuously over a length of 700 metres and a vertical range of 200 metres. Parts of the vein system are covered by overburden and ice. The more accessible parts were examined and sampled over a length of 400 metres (figure 5).

The eastern-most portion is exposed on an inaccessible cliff above a small glacier. The steep slopes to the east of this cliff along strike were examined but the vein was not located. A 10 to 30 cm wide vein - (sample site 1TA 345, figure 4) might be the fault-offset extension of the main vein.

To the west, ice, moraine and talus cover the projection of the vein. Outcrops along strike suggest that it might be cut off by an irregular body of quartz monzonite.

The vein appears to be a fissure and local fault filling along the north contact on an altered felsite dike. Thickness of the vein ranges from 0 to 1.5 metres. In the central part of the vein area it splits into 2 or more veins over a width of 3 metres and in at least 2 locations a subsidiary vein horsetails off the main vein. The dike ranges in width from 3 to 15 metres and locally splits into two dikes. Minor vein quartz also occurs erratically along the south contact of one dike.

The vein material is massive white quartz which is somewhat drusy with tightly packed quartz crystals up to 2 cm long. Variable amounts of galena, pyrite and minor amounts of chalcopyrite and tetrahedrite occur as irregular streaks and disseminations. A lens with up to 50% sphalerite, galena, tetrahedrite and chalcopyrite is exposed over an area of 8 metres by 5 to

20 cm (sample site 1TA 333, figure 4). This sulfide-rich quartz appears to be an older vein filling and is cut off by the more massive drusy quartz.

Vein trend ranges from 110 to 132° with southerly dips in the range 70 to 90°. A dip of 27° S was noted in one locality.

A prominent alteration envelope occurs along the margin of the quartz vein. The diorite, andesite and felsite dike are altered to a light greenish-grey mixture of quartz, sericite, carbonate, and serpentine with minor pyrite for a distance of up to 15 metres from the vein wall. Quartz veinlets containing pyrite or galena are common in the envelope.

Narrow quartz veins were noted elsewhere in the cirque (figure 4) and were sampled where accessible.

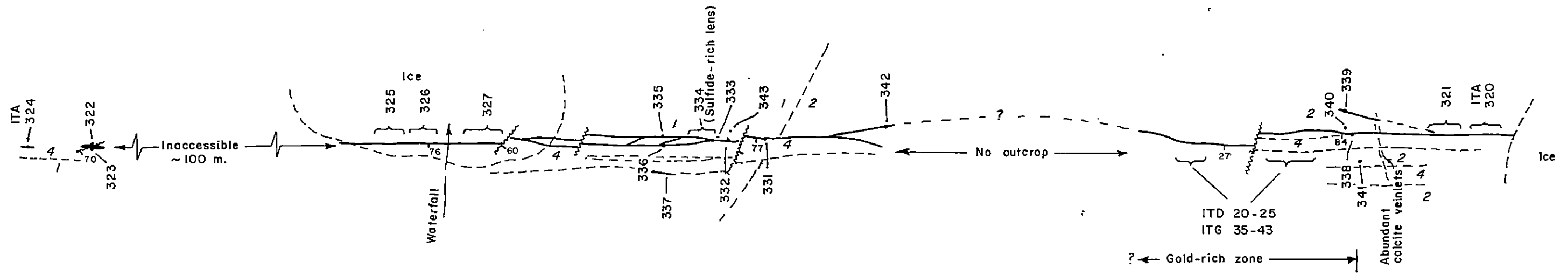
Copper and silver-bearing veins were found on the ridge on the west edge of the claim area (Allen and Allen, 1981).

#### ASSAY RESULTS

The accessible portions of the quartz vein system were sampled over a length of 400 metres. Samples usually consisted of 2 to 4 kilograms of rock taken either as channel samples or a bulk sample along the length and width of the vein. Assays and geochemical analyses were carried out by Roszbacher Laboratories Ltd. and check assays carried out by Acme Analytical Laboratories Ltd. Sample sites are plotted on figures 4 and 5 and results included in Appendix III. Sample descriptions and gold and silver assays are summarized in Table 1.



Plate 3. Sample site 1TA 338. Quartz vein containing pyrite, galena, and sphalerite.

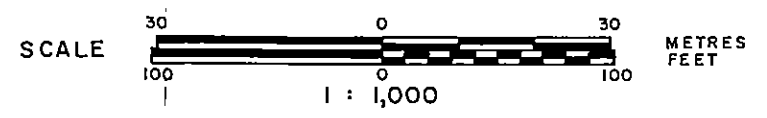


**LEGEND**

- 4 Felsite
- 2 Diorite
- 1 Andesite, rhyolite
- Quartz vein
- ITA 324 Sample site, sample number
- - - Geological contact

CARL CREEK GOLD MINING LTD.  
 LEGATE CREEK PROPERTY  
 SKEENA MINING DIVISION - BRITISH COLUMBIA

**SCHEMATIC PLAN  
 MAIN VEIN & SAMPLE SITES**



*Donald B. Allen*  
**exploration Ltd.**

FIGURE 5



Table 1a Sample Descriptions and Results

SAMPLE NO.	DESCRIPTION	Au oz/ton	Ag oz/ton
81 TAT 320	25-40 cm wide milky quartz containing minor pyrite, trace galena.	0.020	nil
321	25-40 cm wide quartz vein with scattered clots and streaks gal and py.	0.014	nil
322	Footwall side of fault cutting lens-shaped vein 0.7 x 5 cm milky quartz lens with scattered clots of pyrite.	0.030	nil
323	Hanging wall side of same fault 0.7 x 10 m lens of quartz containing disseminated clots pyrite with minor galena and sphalerite.	0.130	nil
324	15 m west of 323 - barren milky quartz vein 25 cm including 5 cm sheared wallrock.	0.002	nil
325	10-40 cm quartz vein - blebs and disseminations of pyrite and galena.	0.088	0.11
326	1 m wide quartz vein - minor streaks of pyrite and galena on west side of waterfall under ice bridge.	0.040	0.17
327	Two 30 cm parallel quartz veins on east side of waterfall minor galena and pyrite.	0.003	nil
331	80-120 cm vein milky quartz with pyrite and galena in bands parallel to wall; minor tetrahedrite	0.116	2.2
332	Altered footwall andesite over 1.5 m containing 1% irregularly disseminated pyrite and minor cpy - a few 0.5 cm qtz stringers with py and gal.	0.010	0.3
333	Milky white quartz vein, locally vuggy, with minor pyrite appears to cut sulfide-rich lens.	0.030	0.3
334	Sulfide-rich quartz lens 8 m long by 5-20 cm wide containing up to 50% sphalerite, tetrahedrite, galena and chalcopryrite.	0.110	116.0
335	80 cm wide white vuggy quartz with dissem clots pyrite and galena on north side of splayed vein.	0.002	0.3
336	60-70 cm wide quartz as above on south side of splayed vein.	0.008	0.1
337	5-30 cm wide quartz vein on south side of felsite dike - milky locally vuggy quartz with scattered clots of galena.	0.002	nil
338	0.5 m wide vein, well mineralized with streaks of galena and pyrite.	0.395	1.5
339	5-20 cm vein containing clots and streaks pyrite and galena.	0.054	0.4
340	Footwall altered diorite with minor disseminated pyrite.	0.001	nil
341	Altered diorite between felsite dikes on hanging wall - containing scattered quartz veinlets containing pyrite and galena.	0.003	1.3
342	Milky white quartz at top of cliff - minor pyrite disseminated along margin of vein.	0.008	0.2
343	Altered diorite over 5 metres on footwall side of vein - contains scattered veinlets containing galena, sphalerite and pyrite.	0.004	0.4
344	Quartz vein float containing pyrite, minor chalcopryrite.	0.070	17.2
345	10-30 cm quartz vein containing minor py and galena.	0.010	0.1
346	2-3 m wide quartz carbonate alteration zone containing scattered quartz veinlets.	0.002	0.1
347	Narrow quartz and carbonate veins in 1.5 m wide alteration zone in diorite - irregularly disseminated pyrite.	0.001	0.1

SAMPLE NO.	DESCRIPTION	Au oz/ton	Ag oz/ton
81 TDT 20	Barren qtz vein 10-15 cm wide parallel to main vein	0.152	0.39
21	20 cm qtz vein below glacier	0.187	45.0
22	20 cm qtz below glacier	0.640	1.38
23	10 cm qtz stringer parallel to main vein	0.025	35.37
24	1 metre qtz vein	0.014	0.73
25	1 metre qtz vein	0.002	0.50
26	Qtz chalcopryrite vein on CARL claim	0.002	0.18
81 TGT 30	Pyritized granodiorite with calcite veins		
31	Pyritized granodiortie with calcite veins		
32	Chalcopryrite on fractures in diorite		
33	Calcite and quartz veinlets in diorite		
34	Calcite and quartz veinlets in diorite		
35	Rusty weathering wallrock		1.86
36	Rusty vein material		
37	Calcite veinlet locally containing galena	0.001	3.41
38	Small quartz vein parallel to main vein	0.001	0.96
39	Composite over possible mining width	0.128	0.50
40	Composite of vein	0.270	2.03
41	Sample over best mineralized part of vein	0.710	1.74
42	Composite of hanging wallrock	0.006	0.77
43	Composite of footwall rock	0.001	
46	Quartz - chalcopryrite vein on CARL claim	0.006	4.64

Table 1b: Sample Descriptions and Results (July 1981 rpt.)

Discrepancies were noted in re-analysis of the following samples: 1) 81 TAT 338 - gold values were found to range from 0.382 to 0.700 oz/ton in 4 assays on two different splits; and

2) 81 TAT 334 - silver values of 93.6 and 116.0 were obtained on two different splits.

Best gold values were obtained on the eastern part of the vein system over a distance of about 50 metres (sample no. 1TA 338 and vein sampled by Allen, 1981) where the vein locally contains 10 to 30% pyrite, galena and sphalerite over a width of 0.4 to 0.7 metres. Assay results including a sample taken by Lay (1928) are as follows:

	<u>Au oz/ton</u>	<u>Ag oz/ton</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Cu%</u>
Lay (1928)	1.2	1.7	5.6	3.8	
1TA 338 (this rpt.)	0.38-0.70	1.5	0.02	0.5	0.13
1TG 40 (July 81 rpt.)	0.27	2.03	0.30	0.30	0.09
1TG 41	0.71	1.74	1.36	0.22	0.04
1TD 21	0.64	1.38	0.04	0.04	0.04
1TG 22	0.19	45.0	0.09	2.6	0.12

This zone would appear to be open to the west where the vein disappears underneath overburden.

Best silver values were obtained from the sulfide-rich lens in the central part of the vein system. This area was sampled by Lay (1928) and Kindle (1937) and results compare as follows:

	<u>Au oz/ton</u>	<u>Ag oz/ton</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Cu%</u>
Kindle (1937)	0.16	92.0	6.1	17.3	1.42
Lay (1928)	0.28	95.2	3.4	11.5	
1TA 334 (this rpt.)	0.11	93.6, 116.0	1.1	0.97	0.9

Significant silver and gold values were obtained from quartz vein float at the toe of the easternmost glacier (1TA 344). Samples taken from three veins northeast of the main vein yielded negative results (1TA 345-347).

A limited amount of prospecting was carried out on the west side of the cirque basin. Lay (1928) reports a vein exposure on the west side of the glacier but it was not observed in this examination. Anomalous soil samples (1TM 1 and 2) in the area indicate that further prospecting is warranted.

#### ECONOMIC POTENTIAL

Results of this work indicate two zones of interest: a gold-rich zone perhaps 50 or more metres in length and a small sulfide-rich zone 8 metres in length. Further work should be directed to establishing the extent and depth of the gold-rich zone. A small topographic shoulder at elevation 1100 metres (3600 feet - helicopter landing site H<sub>1</sub> on figure 4) would serve as a base for carrying out further exploration and would provide a possible site for underground development should a significant tonnage be established.

Respectfully submitted,

*Donald S. Allen*

REFERENCES

- Allen, G.M. and Allen, D.G. (1981). Summary Report on the Legate Creek Property. Private report for Carl Creek Gold Mining Ltd., July, 1981.
- Duffle, S. and Souther, J.G. (1964). Geology of Terrace Map Area British Columbia, Geol. Surv. Canada Memoir 329.
- Kindle, E.D. (1937). Zona May Group, in Mineral Resources, Usk to Cedarvale, Terrace Area. Geol. Surv. Canada Memoir 212, p. 23.
- Lay, D. (1928). Zona May, in Annual Report of the Minister of Mines 1928, p. C 147-148.

APPENDIX I  
CERTIFICATE



CERTIFICATE

I, Donald G. Allen certify that:

1. I am a Consulting Geological Engineer, resident at 4570 Hoskins road, North Vancouver, B.C.
2. I am a graduate of the University of British Columbia with degrees in Geological Engineering. (B.A.Sc., 1964; M.A.Sc., 1966)
3. I have been practising my profession since 1964.
4. I am a member in good standing of the Association of Professional Engineers of British Columbia.
5. This report is based on field work carried out during the period October 17, 18 and 20, 1981.
6. I hold no interest, nor do I expect to receive any, in the TOM or CARL claims, in Carl Creek Resources Ltd. or in Claude Resources Inc.
7. I consent to the use of this report in a Statement of Material Facts or in a Prospectus by Carl Creek Resources Ltd. or Claude Resources Inc.

North Vancouver, B.C.  
December 15, 1981

Donald G. Allen  
P. Eng. (B.C.)

APPENDIX II  
COST ESTIMATES



## COST ESTIMATES

PHASE I     Blasting, sampling, drill site preparation,  
              geological mapping.

### Salaries

Geologist	15 days @ \$400/day	\$ 6,000
Assistant	15 days @ \$150/day	2,250
Blasting crew	15 days @ \$500/day	7,500
Telephone and radio rental		500
Topographic base and orthophoto		3,000
Helicopter access	10 hours @ \$500/hr.	5,000
Camp supplies, equipment, powder		1,500
Shipping expense		500
Project travel		1,000
Board	60 man days @ \$35/day	2,100
Assay	30 samples @ \$12/sample	360
Report preparation and draughting		3,000
Contingencies		3,290
		<hr/>
		\$35,000

PHASE II     Diamond drilling

### Salaries

Supervisor	1.0 months @ \$5,000/mo.	\$ 5,000
Assistant	1.0 months @ \$2,000/mo.	2,000
Consulting geologist	10 days @ \$400/day	4,000
Telephone and radio rental		500
Helicopter support	40 hours @ \$500/hr.	20,000
Drilling expense	2000 feet @ \$40/ft.	80,000
Camp supplies, equipment		5,000
Expediting services		500
Shipping expense		1,000
Project travel		1,500
Board	70 man days @ \$35/day	2,450
Assay	50 samples @ \$12/sample	600
Vehicle rental		1,000
Report preparation and draughting		2,000
Contingencies		9,450
		<hr/>
		\$135,000

APPENDIX III  
ASSAY AND GEOCHEMICAL RESULTS

# Rossbacher Laboratory Ltd.

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,  
BURNABY, B. C.  
CANADA.  
TELEPHONE: 299-6910

## CERTIFICATE OF ANALYSIS

**A & M EXPLORATION LTD.**

TO: 4570 HOSKINS ROAD  
NORTH VANCOUVER, B.C. V7K 2R1

CERTIFICATE NO. 81444-1  
INVOICE NO. 2002  
DATE ANALYSED OCT. 30/81  
PROJECT LEGATE CREEK

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	T-20	Ag	Pb	Zn		No.
01	81TAT 321		2	66	32	14	190	0.8	1.0	110	174		01
02	320 722A		1	44	36	16	190	0.6	1.2	44	174		02
03	722B		5	10	28	12	100	0.8	0.4	16	14		03
04	323		6	14	24	12	60	0.6	0.9	90	16		04
05	724		14	22	26	12	210	0.9	0.2	14	18		05
06	725		7	200	24	14	120	1.1	3.6	1630	2460		06
07	726		3	84	18	10	90	0.6	5.3	1680	26		07
08	727		2	172	18	9	200	0.6	1.2	90	18		08
09	331		23	840	20	10	80	0.6	67.0	1280	2760		09
10	81TAT 332		17	900	54	32	810	4.5	8.0	180	770		10
11	333		9	218	16	6	100	0.5	8.8	350	66		11
12	334		5	9000	26	34	350	1.5	2000	11300	97000		12
13	735		3	86	20	8	120	0.5	9.4	280	560		13
14	336		7	26	22	8	80	0.5	4.3	208	44		14
15	337		3	8	24	8	110	0.4	0.6	66	28		15
16	338		12	1300	28	12	80	2.5	46.0	234	4790		16
17	339		3	1960	42	22	540	1.1	13.0	308	360		17
18	340		1	46	50	22	710	3.4	1.2	26	240		18
19	341		4	450	60	24	670	3.3	39.0	190	360		19
20	81TAT 342		3	84	28	12	230	0.8	5.8	58	62		20
21	343		3	182	50	32	930	4.6	12.0	84	220		21
22	344		2	2200	48	52	80	3.4	550.0	360	670		22
23	345		8	22	26	14	200	1.4	4.2	770	94		23
24	346		2	60	58	26	1690	3.4	2.1	138	400		24
25	81TAT 347		3	154	54	26	840	3.2	2.4	130	320		25
26	STD		2	120	8	2	100	0.8	7.0	104	530		26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40													40

VALUES IN PPM, UNLESS NOTED OTHERWISE.

Certified by

*J. Rossbach*

# Rossbacher Laboratory Ltd.

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,  
 BURNABY, B. C.  
 CANADA  
 TELEPHONE: 299-6910  
 AREA CODE: 604

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 81444-3

TO: A & M EXPLORATION LTD.  
 4570 Hoskins Road  
 North Vancouver, B.C.

INVOICE NO. 2002

DATE RECEIVED

DATE ANALYSED Oct 30, 1981

ATTN: re. LEGATE CREEK

SAMPLE NO.:	oz/T Au	
81TAT 321	0.014	
81TAT 322a 32c	0.020	
81TAT 322b	0.030	
81TAT 323	0.130	
81TAT 324	0.002	
81TAT 325	0.038	
81TAT 326	0.040	
81TAT 327	0.003	
81TAT 331	0.116	
81TAT 332	0.010	
81TAT 333	0.030	
81TAT 334	0.110	
81TAT 335	0.002	
81TAT 336	0.008	
81TAT 337	0.002	
81TAT 338	0.700	re-run 0.470
81TAT 339	0.054	
81TAT 340	0.001	
81TAT 341	0.003	
81TAT 342	0.008	
81TAT 343	0.004	
81TAT 344	0.070	
81TAT 345	0.010	
81TAT 346	0.002	
81TAT 347	0.001	

Certified by

*[Signature]*





To: A & M Exploration Ltd.,  
 4570 Hoskins Road,  
 N. Vancouver, B.C.  
 V7K 2R1

ACME ANALYTICAL LABORATORIES LTD.  
 Assaying & Trace Analysis  
 852 E. Hastings St., Vancouver, B. C. V6A 1R6  
 Telephone: 253 - 3158

Attn.: Mr. D. Allen

File No. 81-1786 B  
 Type of Samples Rock  
 Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

Project : 81-122 (Tat Series)

No.	Sample	Au oz/ton	Au oz/ton (FA)	Ag oz/ton			No.
1	81 Tat 323	.140					1
2	325	.089					2
3	331	.088					3
4	334	.105		116.00			4
5	338	.382	.395				5
6	339	.054					6
7	341	.001					7
8	81 Tat 344	.059		17.20			8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20

All reports are the confidential property of clients.

FA = Fire Assay

DATE SAMPLES RECEIVED Nov. 9, 1981

DATE REPORTS MAILED Nov. 17, 1981

ASSAYER Dean Toye

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

# Rossbacher Laboratory Ltd.

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,  
 BURNABY, B. C.  
 CANADA  
 TELEPHONE: 299-6910

## CERTIFICATE OF ANALYSIS

TO: **A & M EXPLORATION LTD.**

4570 HOSKINS ROAD  
 NORTH VANCOUVER B.C. V7K 2P7

CERTIFICATE NO. **81444-2**  
 INVOICE NO.  
 DATE ANALYSED **OCT. 30/81**  
 PROJECT **ppb**

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Pb	Zn	Alu	No.
01	81TMS1		1	170	70	36	2650	6.0	0.8	102	242	40	01
02	81TMS2		1	152	100	40	3100	6.0	0.4	106	244	10	02
03													03
04													04
05													05
06													06
07													07
08													08
09													09
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40													40

VALUES IN PPM, UNLESS NOTED OTHERWISE.

Certified by

*[Signature]*

APPENDIX IV  
AFFIDAVIT OF EXPENSES



AFFIDAVIT OF EXPENSES

This will certify that geological mapping and sampling were carried out from October 17-20, 1981 on the TOM and TOM 1 claims Skeena Mining Division, British Columbia to the value of the following:

Field Work and Mobilization

Salaries

D.G. Allen	4.5 days @ \$300/day	\$1,350.00
D.R. MacQuarrie	3.5 days @ \$200/day	700.00

Field supplies	75.70
Radio rental	140.00
Telephone	42.20
Room and board	291.54
Travel and vehicle expenses	775.95
Assays and geochemical analyses	433.40
Helicopter access and support	1,595.23

Report

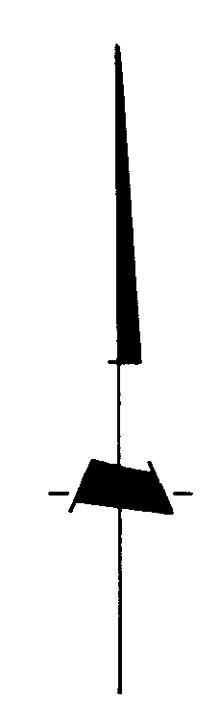
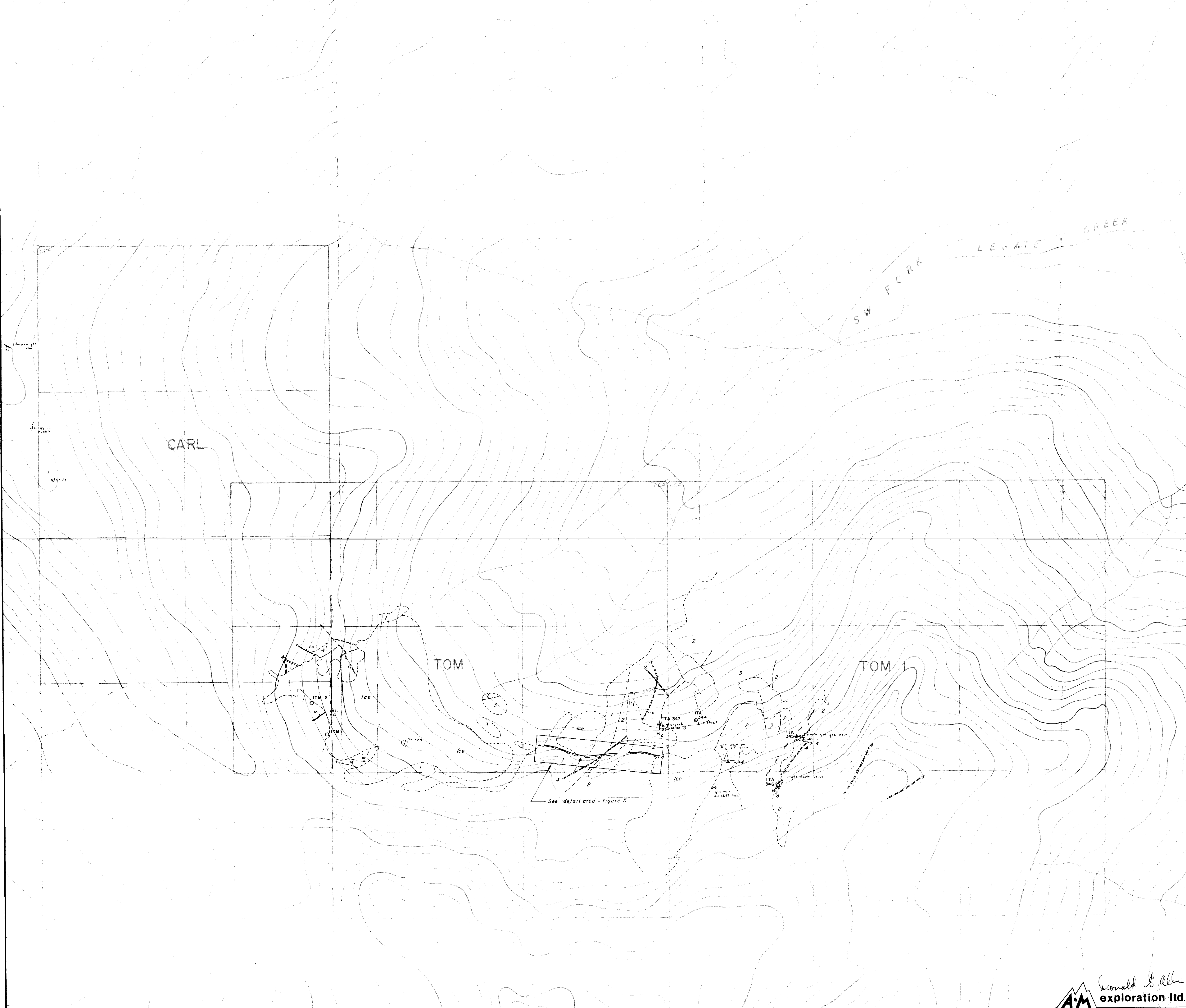
D.G. Allen	3.5 days @ \$300/day	1,050.00
Draughting, typing, photocopying, compilation		433.59

Total	<u>\$6,887.61</u>
-------	-------------------

Respectfully submitted,

*D. G. Allen*

D.G. Allen



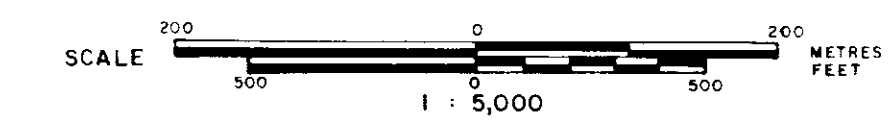
**LEGEND**

- LATE DIKE & PLUGS**
- Felsite, quartz feldspar porphyry
  - Quartz monzonite
- COAST PLUTONIC COMPLEX**
- Diorite, quartz diorite
- HAZELTON GROUP**
- Andesite, rhyolite.

**SYMBOLS**

- Outcrop
- Geological contact
- Quartz vein
- Fault
- ITA 347 Rock sample site, sample number
- ITM 1 Soil sample site, sample number
- LCP Legal corner post, claim, boundary
- Claim unit boundary
- H Helicopter landing site

MINERAL RESOURCES DIVISION  
ACCREDITED REPORT  
**10,125**  
NO.



NTS 103 1/25

CARL CREEK GOLD MINING LTD.  
LEGATE CREEK PROPERTY  
SKEENA MINING DIVISION - BRITISH COLUMBIA

**GEOLOGY  
&  
SAMPLE SITES**

**A.M.** Ronald S. Allen  
exploration Ltd.

DRAWN BY T.M. B.D.A.	JOB No.	FIGURE
CHECKED BY W.M.	81 - 122	4
DATE DECEMBER 1981		