

LOG NO: JUL 31 1991 RD.

ACTION:

FILE NO:

ASSESSMENT REPORT
ON
GEOCHEMICAL WORK
ON THE FOLLOWING CLAIM

PARADIGM 1 6100(4)

located

80 KM NORTHWEST OF
STEWART, BRITISH COLUMBIA
SKEENA MINING DIVISION

56 degrees 36 minutes N latitude
130 degrees 34 minutes W longitude

N.T.S. 104B/10E

PROJECT PERIOD: August 9-11, 1990

ON BEHALF OF

BRAVO RESOURCES INC. (OPERATOR)
TEUTON RESOURCES CORP. (OWNER)
VANCOUVER, BRITISH COLUMBIA

REPORT BY

D. Cremonese, P. Eng.
602-675 W. Hastings
Vancouver, B.C.

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Date: July 26, 1991

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GEOLOGICAL BRANCH ASSESSMENT REPORT

21,543

1. INTRODUCTION

A. Property, Location, Access and Physiography

The property is located in the Unuk River area some 80 km northwest of Stewart, B.C. and approximately 950 km north-northwest of Vancouver, B.C. The Eskay Creek polymetallic deposits owned by Prime Resources and Stikine Resources are located about 6 km to the northeast. The property lies at the headwaters of Harrymel Creek, a southerly-flowing tributary of the Unuk River, with the terminus of the Copper King Glacier touching the western claim boundary.

Property elevations vary from approximately 650 to 1800 m. Vegetation in the area changes from a mantle of mountain hemlock and balsam at low-lying elevations to shrubs, mountain grasses and heather at higher elevations. Heavy patches of alder also occur throughout the property. Slopes range from moderate to steep to precipitous; certain areas, such as along the gorge walls of Copper King Creek, are accessible only with the aid of mountaineering equipment.

Climate is severe, particularly at higher elevations. Heavy snowfalls in winter and rain in the short summer working season are typical of the Stewart area.

B. Status of Property

Relevant claim information is summarized below:

Name	Record No.	No. of Units	Record Date
Paradigm 1	6100(4)	18	April 28, 1987

Claim location is shown on Fig. 2 after government N.T.S. Map 104B/10E. The claim is registered in the name of Teuton Resources Corp. of Vancouver, B.C. During the time the assessment work was performed, the property was under option to Bravo Resources Inc. and, accordingly, Bravo was the operator.

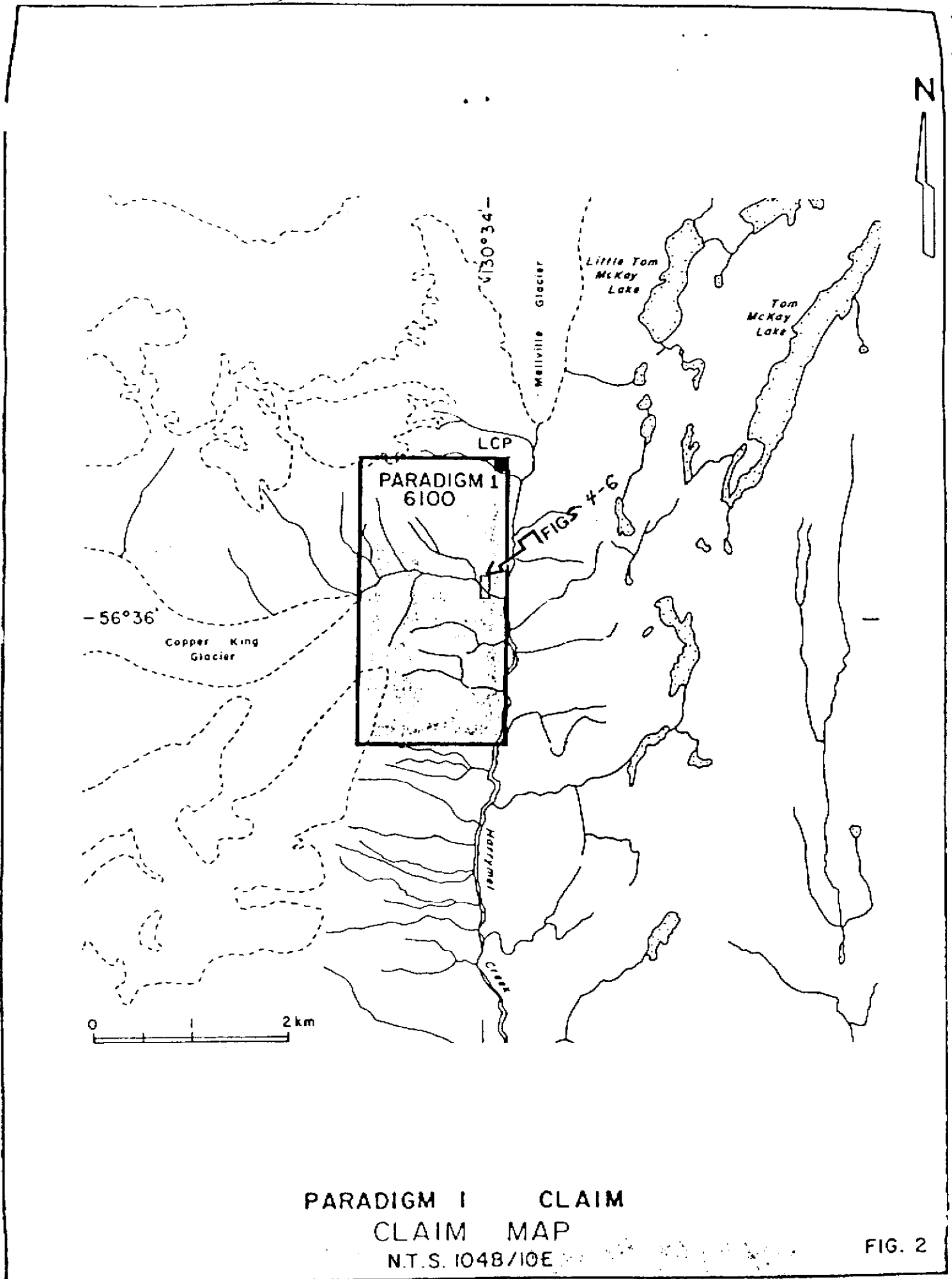
C. History

In the modern era, say from 1975 onward, the general Stewart region once again became a prominent exploration centre after discovery of high grade gold-silver mineralization in several localities such as Johnny Mountain and Brucejack Lake. The recent major discovery at Eskay Creek, in the Unuk River sub-area of Stewart, has further intensified local exploration efforts.

The Paradigm 1 claim controls the old "Copper King" showing



PARADIGM 1 CLAIM
 LOCATION MAP
 N.T.S. 104B/10E



PARADIGM I CLAIM
CLAIM MAP
N.T.S. 1048/10E

FIG. 2

first explored in the 1960's and intermittently thereafter by well-known Stewart prospector John Lehto. The showing consists of small replacement bodies of massive fine-grained pyrrhotite and chalcopyrite outcropping along a prominent north-south trending fault zone. Some geophysical surveys were undertaken during this early phase of work by a company who held the property under option (EMPR ASS. RPT. #150). An airborne EM-MAG survey was conducted over the property in 1988 for Teuton Resources Corp. with inconclusive results (Hermary & Woods, 1988).

D. References

1. GROVE, E.W. (1971): Bulletin 58, Geology and Mineral Deposits of the Stewart Area. B.C.M.E.M.P.R.
2. GROVE, E.W. (1982): Unuk River, Salmon River, Anyox Map Areas. Ministry of Energy, Mines and Petroleum Resources, B.C.
3. GROVE, E.W. (1987): Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox Area, Bulletin 63, BCMEMPR
4. HERMARY, R.G. & WOODS, D.V. (1988): Airborne Magnetic and VLF-EM Survey, Paradigm 1-2 Claims, April - July, 1988. EMPR ASS. RPT. #AR17625 (1988).
5. B.C. AND CANADIAN GOVERNMENT GEOSCIENCE REFERENCES
 - EMPR BULL * 63, Fig. 13
 - EMPR ASS. RPT. * 150
 - GSC MEM 246
 - GSC P. 89-1E, PP. 145-154
 - EMPR FIELDWORK 1988, PP. 241-250
6. MCDUGALL, J.J., P.ENG. (Jan. 18, 1991): Geological Report on Paradigm 1 Mining Claim, Skeena M.D., B.C. For Bravo Resources Inc.
7. VERBAL COMMUNICATION: With J.J. McDougall, P.Eng., July, 1991.

E. Summary of Work Done.

The 1990 assessment work program on the Paradigm 1 claim was undertaken by operator Bravo Resources Inc. during the period from August 9 to 11. Object of the program was to follow-up historical reports of mineral occurrences on the property as well as to evaluate its potential with regard to hosting deposits similar to those recently discovered at Eskay Creek.

Fieldwork was carried out on August 10, 1990 consisting of rock geochemical/character sampling (15 samples) and stream sediment sampling (1 sample). The crew was made up of three men:

geologist J. J. McDougall, P.Eng., and two assistants. The crew was flown into and out of the property by helicopter originating from the Vancouver Island Helicopter base at Bob Quinn Lake on Highway 37. Some helicopter time was also used examining mineralized exposures in cliffs along Copper King Creek (which would have otherwise required skilled mountaineering geologists) as well as for a general property reconnaissance.

Both the rock and stream sediment geochemical samples were analysed for gold by standard AA techniques, as well as for 31 elements by I.C.P. (Inductively Coupled Argon Plasma) at the Min-En Labs facility in North Vancouver..

2. TECHNICAL DATA AND INTERPRETATION

A. Regional Geology

The property lies within a broad, north-northwest trending belt of Triassic and Jurassic volcanic and sedimentary rocks termed by Grove (1971) as the "Stewart Complex". This belt is bounded to the west by the Coast Crystalline Belt (mainly granodiorites) and to the east by a thick series of sedimentary rocks known as the Bowser Assemblage (Middle Jurassic to Upper Jurassic age).

Property location relative to regional geology is shown on Fig. 3.

B. Property Geology and Mineralization

The property is underlain by two distinct north-south trending geological units. From east to west they are: sedimentary siltstone, sandstone, conglomerate and limestone of the Upper Triassic Takla Group; and, plutonic rocks of hornblende quartz diorite (forming the high ridges on the west side of the property), also of Upper Triassic age. Pleistocene and recent basalt flows from the Cinder Mountain volcanic centre to the southwest of the property are also found in a limited area on the valley floor of the ablating Copper King Glacier. The structure of the property is dominated by northeast trending synclinal formations to the northeast and north-south trending faults on the west side of Harrymel Creek. A recent (1990?) side-scanning radar map identifies the fault locations quite accurately regionally but unfortunately the photographic background is too dark in the Paradigm area to allow local interpretation.

Mineralization of interest appears confined to the Takla Group volcanics consisting of laminated flow breccias and felsite flows to the west while limestone, argillite, siltstone occur with the flows to the east. North trending lenses of limestone are present near the better mineralized zone and a minor chlorite schist is evident but difficult to trace. Most local bedrock is classified as

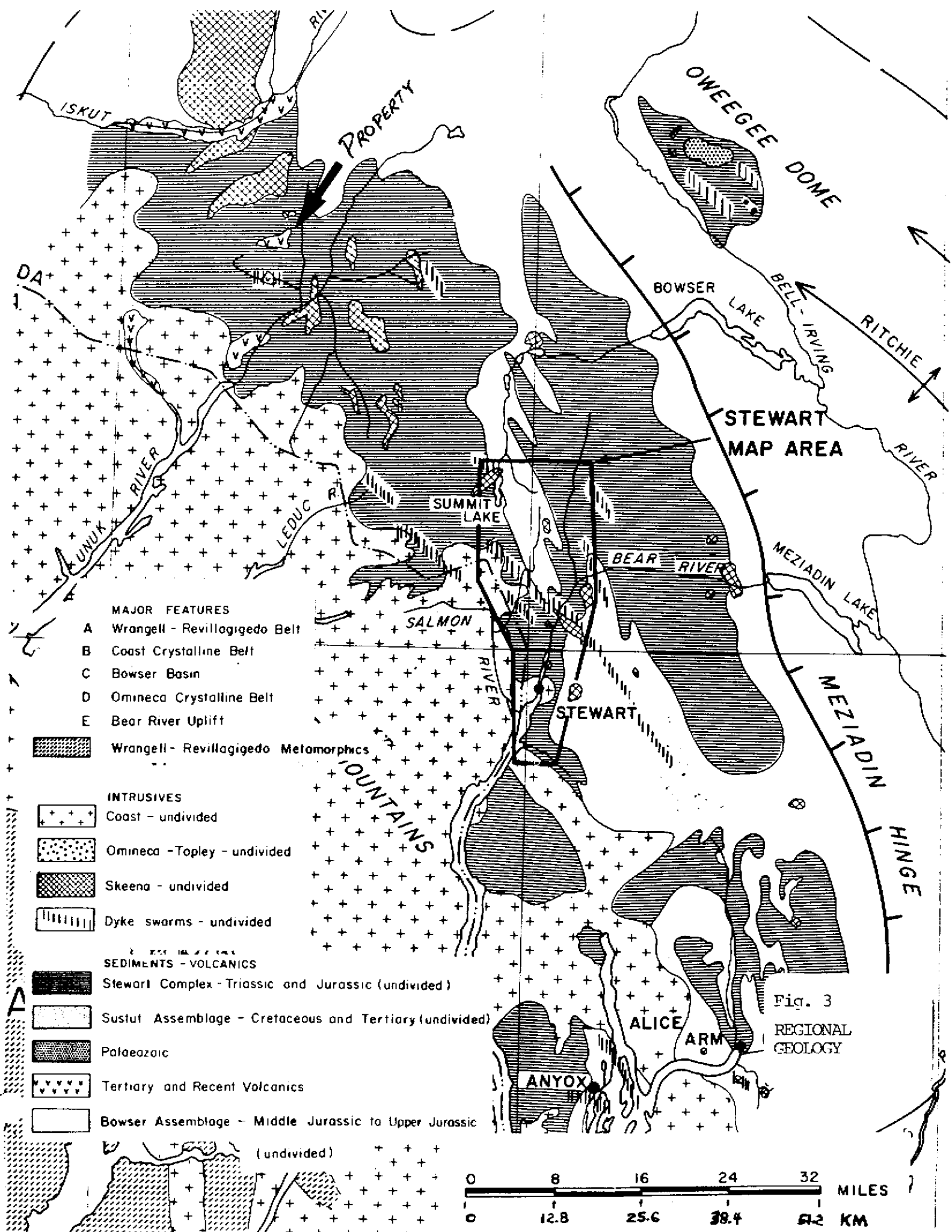


Fig. 3
REGIONAL
GEOLOGY

"metavolcanics" in this report as no petrographic examinations have been attempted to allow subdivision. Geological features are unusually well exposed on near vertical cliffs north and south of Copper King Creek but are largely inaccessible, requiring climbing equipment. Scattered, locally mineralized rock is accessible north of the cliffs but is at least 60% obliterated by overburden in depressions and dense alder vegetation. This zone is additionally bounded 300 m to the north by morainal debris, 300 m to the west by relatively recent lava flows (columnar basalt) and to the east by steep but accessible step-like cliffs to Harrymel Creek. Figs. 4-6 which illustrate the geochemical data also show approximate locations of some of the main geological features.

Mineralization consists largely of numerous discontinuous structurally controlled lenses and disseminations of pyrite and minor pyrrhotite plus occasional chalcopyrite well exposed in the glacially rounded meta-volcanic knolls. On occasion, well developed vein-like structures exist, which often contain 5% disseminated pyrite, minor pyrrhotite, and ever present limonite. Alteration consists of minor silicification and pyritization. Some epidote is present associated with minor chlorite schist units.

Structure consists of a number of steep, westerly-dipping, north-trending, faults which help form a series of local ridges. The most important of these trends centrally through the "plus" 200 m wide pyritic zone and includes the "Main Showing" (refer to locality marked "Cut" on Figs. 4-6), a replacement zone locally well mineralized with chalcopyrite for an exposed 10 m length. Continuity easterly across the zone is concealed by a 10 m wide debris and alder-filled depression as in this case along strike northerly. Southerly the steep, near vertical cliffs prevent confirmation of continuity although the more intensive limonite alteration present there suggests the zone continues in some form.

C. Geochemistry - Rock Samples

a. Introduction

Fifteen rock geochem samples were collected during the one day examination of the property. Sample sites were plotted on a base map prepared after a government topographic map, modified by local interpretation (cf. Sample Location Map--Fig. 4). Sample locations were fixed in the field by pace and compass survey. Copper, lead and zinc values in ppm are presented in this report in Fig. 5, drawn at a scale of 1:1000; gold (ppb) and silver (ppm) values are similarly presented on Fig. 6.

b. Treatment of Data

The 15 rock geochem samples collected during the 1990 work program comprise too small a set for efficient use of standard

statistical methods for determining threshold and anomalous levels. In lieu of such treatment, the author has simply chosen anomalous levels by reference to several rock geochemical programs conducted over other properties in the Stewart region over the past ten years. On this basis, anomalous values are as indicated below:

<u>Element</u>	<u>Anomalous Above</u>
Copper	200 ppm
Lead	160 ppm
Zinc	600 ppm
Gold	100 ppb
Silver	3.6 ppm

c. Sample Descriptions

J.J. McDougall, P.Eng., has simply described all the rock geochem samples taken during the survey as metavolcanics variously mineralized with pyrite and pyrrhotite. Additionally, samples #465 and 466 were noted also to contain chalcopyrite. [Note: to key sample #'s on Fig. 4 with the Assay Certificates, each number should be prefaced by "68"].

Following are the samples that recorded anomalous levels, with the anomalous elements featured in boldface.

451	Cu - 100 ppm	Au - 1 ppb
	Pb - 176 ppm	Ag - 1.3 ppm
	Zn - 121 ppm	
454	Cu - 1016 ppm	Au - 4 ppb
	Pb - 1 ppm	Ag - 1.1 ppm
	Zn - 1 ppm	
458	Cu - 44 ppm	Au - 1 ppb
	Pb - 14 ppm	Ag - 3.8 ppm
	Zn - 26 ppm	
459	Cu - 557 ppm	Au - 2 ppb
	Pb - 1 ppm	Ag - 4.4 ppm
	Zn - 45 ppm	
460	Cu - 136 ppm	Au - 1 ppb
	Pb - 1 ppm	Ag - 4.1 ppm
	Zn - 32 ppm	
461	Cu - 25 ppm	Au - 1 ppb
	Pb - 8 ppm	Ag - 3.6 ppm
	Zn - 44 ppm	

462	Cu - 153 ppm	Au - 1 ppb
	Pb - 1 ppm	Ag - 3.9 ppm
	Zn - 36 ppm	
465	Cu - 9684 ppm	Au - 3 ppb
	Pb - 166 ppm	Ag - 6.7 ppm
	Zn - 663 ppm	
466	Cu - 10444 ppm	Au - 2 ppb
	Pb - 264 ppm	Ag - 7.4 ppm
	Zn - 859 ppm	

d. Discussion

The two most anomalous samples, #'s 465 and 466, came from what is believed to be the old "Copper King" showing (marked as "Cut" on Figs. 4-6). Copper values were in the area of 1%, with accompanying anomalous levels in lead, zinc and silver. Elsewhere in the traverse zone, lesser but still anomalous copper values of 1016 and 557 ppm, samples 454 and 459, respectively, suggest the presence of other chalcopyrite-bearing zones in the metavolcanics.

For the most part, the remaining samples were somewhat non-descript, although weakly anomalous levels of silver were obtained in #'s 458, 459, 460, 461 and 462 ranging from 3.6 to 4.4 ppm. Looking at the mineral associations, it is believed that these elevated silver values accompany pyrrhotite rather than some other mineral.

Gold values were uniformly low in all of the samples taken.

D. Geochemistry - Stream Sediment Samples

a. Introduction

Only one stream sediment sample was taken during the geochemical survey. Its location is marked as a circle on Figure 4, drawn at a scale of 1:1000 (Map Pocket). Copper, lead and zinc values in ppm are presented in this report in Fig. 5, drawn at a scale of 1:1000; gold (ppb) and silver (ppm) values are similarly presented on Fig. 6.

b. Treatment of data

Based on reference to a number of silt geochemical sampling programs conducted in the region over the past ten years, values in excess of 50 ppb can be safely considered anomalous for gold. On the same basis, values considered anomalous for Ag, Cu, Pb, Zn are listed below.

<u>Element</u>	<u>Anomalous Above</u>
Copper	100 ppm
Lead	80 ppm
Zinc	300 ppm
Gold	50 ppb
Silver	1.2 ppm

c. Discussion

The single sample taken, from a small creek, returned only a weakly anomalous level in silver--1.3 ppm. Gold value of 1 ppb was very low, consistent with the rock geochem. Surprisingly, values in copper, lead and zinc were also on the low side. Although the direction of flow of the stream was not indicated on the field map supplied by J. J. McDougall, P.Eng., it is probably roughly north to south taking into consideration the topography. As such it could be too far east of the main showing/fault area to reflect the high copper values indicated there.

E. Field Procedure and Laboratory Technique

The silt sample was taken in the field by scooping fine stream sediments into a standard Kraft Bag. The bag was then marked, allowed to dry, and shipped to North Vancouver for analysis at the Min-En Laboratories facility on 852 East Hastings Street.

After standard sample preparation, a .500 gram subsample was digested with 3ml of 3-1-2 HCl-HNO₃-H₂O at 95 degrees Centigrade for one hour, then diluted to 10 ml with water. The resulting solution was tested by Inductively Coupled Argon Plasma to yield quantitative results for 30 elements. Gold was analysed by standard atomic absorption methods from a 10 gram subsample.

Rock geochem samples were analysed in the same manner as described above.

F. Conclusions

The 1990 geochem survey over a portion of the Paradigm 1 claim consisted of helicopter-supported rock and silt geochemical sampling. The program was of a reconnaissance nature, designed to isolate areas worthy of follow-up.

Non-intensive but pervasive pyrite-pyrrhotite mineralization was noted as being widespread on the property, being readily visible across widths of at least 300 m both north and south of the lower gorge on Copper King Creek. The best exposures, however, were accessible only by rope, apparently not attempted (at least in

recent years). The best accessible mineralization is associated with a steep north-south fault system north of the gorge and consists of pyrite-chalcopyrite, minor pyrrhotite replacement along the west side of a debris littered but distinct lineament. Copper values to 1% and anomalous lead, zinc and silver values are associated with the main mineralized exposure, whose extremities north and east can not be determined without considerable physical work. Similar mineralization appears in good exposures south of the gorge, but this was inaccessible due to the lack of required climbing gear and a swollen glacial stream.

It is recommended that mineralization exposed on the cliffs south of the gorge should be examined by skilled prospector climbers, as should its probable extension further south which is largely overburdened and heavily vegetated. The better mineralized zone north of the gorge should be investigated across its full width by 50 to 10 meter trenches in bouldery overburden, or possibly more readily by a couple of short 45-60 m diamond drill holes collared near available water present to the west. The zone if possible could probably be traced under glacial overburden to the north by VLF-EM. The downcreek area (float and outcrop) toward Harrymel Creek should also be prospected.

Respectfully submitted:



D. Cremonese, P.Eng.
July 26, 1991

APPENDIX I -- WORK COST STATEMENT

Field Personnel: August 10, 1990	
J.J. McDougall, P.Eng., Geologist	
1 day @ \$400/day	\$ 400
K. Christensen, Assistant	
1 day @ \$200/day	200
G. Hajduk, Assistant	
1 day @ \$200/day	200
Helicopter -- Vancouver Island Hel. (Bob Quinn Base)	
Crew drop-offs/pick-ups/heli-recon	
Aug. 10 2.2 hrs. @ \$722.50	1,590
Assays -- Min-En	
Geochem Au, I.C.P. and rock sample preparation	
15 @ \$13.75 per sample	206
Geochem Au, I.C.P. and silt sample preparation	
1 @ \$11.60 per sample	12
Mob-demob costs--Vancouver to Bob Quinn and return	
Personnel fees/wages, transportation and	
accommodation expenses = \$3760 (as reported to	
Teuton by Bravo).	
Say, 20% of \$3,760	752
Report and map preparation	
D. Cremonese, P.Eng., 1.5 days @ \$400/day	600
Draughting -- RPM Computer	120
Word Processor - 4 hrs. @ \$25/hr.	100
Copies, blow-ups, jackets, maps, etc.	45
TOTAL..... \$	<u>4,225</u>

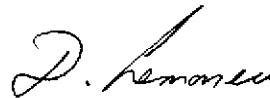
Amount Claimed Per Statement of Exploration: \$3,600

APPENDIX II - CERTIFICATE

I, Dino M. Cremonese, do hereby certify that:

1. I am a mineral property consultant with an office at Suite 602-675 W. Hastings, Vancouver, B.C.
2. I am a graduate of the University of British Columbia (B.A.Sc. in metallurgical engineering, 1972, and L.L.B., 1979).
3. I am a Professional Engineer registered with the Association of Professional Engineers of the Province of British Columbia as a resident member, #13876.
4. I have practiced my profession since 1979.
5. This report is based upon work carried out on the Paradigm 1 mineral claim, Skeena Mining Division in August of 1990. The majority of the technical information contained in the assessment report has been taken directly from a report prepared by J.J. McDougall, P.Eng. (Reference 6) based on his Aug. 10, 1990 property examination. I have full confidence in the abilities of all samplers used in the 1990 geochemical program and am satisfied that all samples were taken properly and with care.
6. I am a principal of Teuton Resources Corp., owner of the Paradigm 1 claim: this report was prepared solely for satisfying assessment work requirements in accordance with government regulations.

Dated at Vancouver, B.C. this 26 day of July, 1991.

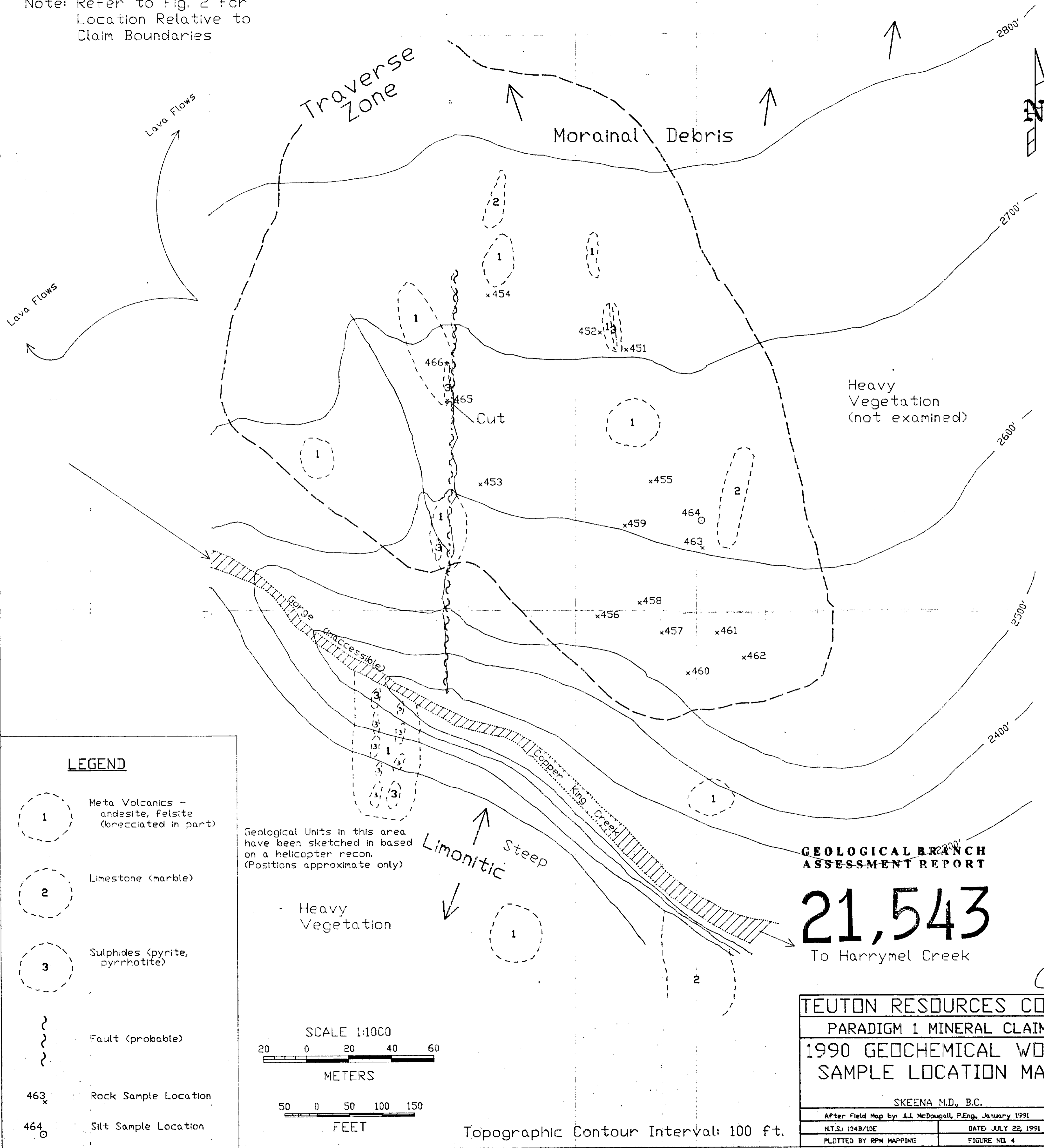


D. Cremonese, P.Eng.

APPENDIX III

ASSAY CERTIFICATES

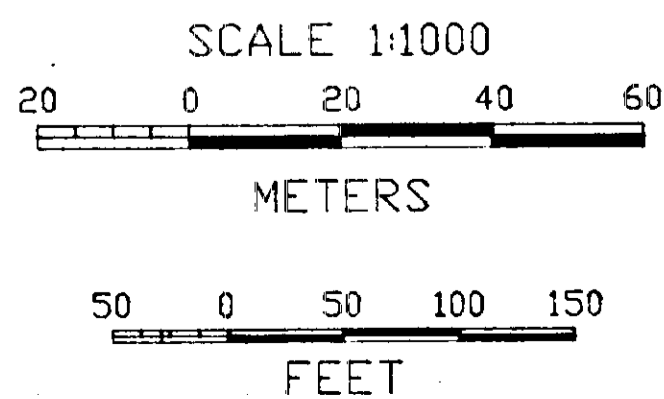
Note: Refer to Fig. 2 for Location Relative to Claim Boundaries



LEGEND

- 1 Meta Volcanics - andesite, felsite (brecciated in part)
- 2 Limestone (marble)
- 3 Sulphides (pyrite, pyrrhotite)
- ~ Fault (probable)
- x463 Rock Sample Location
- o464 Silt Sample Location

Geological Units in this area have been sketched in based on a helicopter recon. (Positions approximate only)



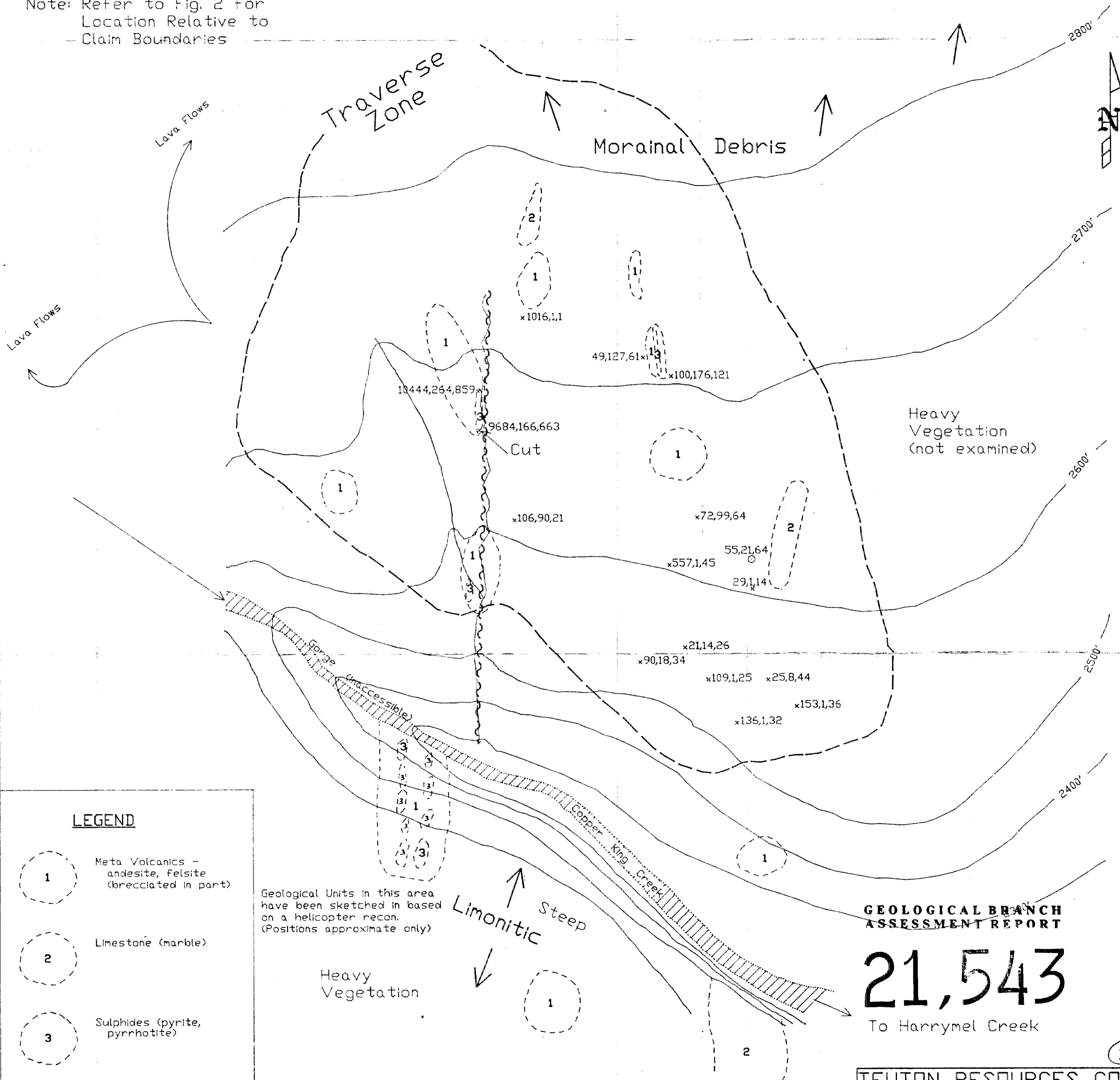
Topographic Contour Interval: 100 ft.

GEOLOGICAL BRANCH ASSESSMENT REPORT

21,543
To Harrymel Creek

TEUTON RESOURCES CORP.	
PARADIGM 1 MINERAL CLAIM	
1990 GEOCHEMICAL WORK SAMPLE LOCATION MAP	
SKEENA M.D., B.C.	
After Field Map by J.L. McDougall, P.Eng., January 1991	
N.T.S.: 1048/10E	DATE: JULY 22, 1991
PLOTTED BY RPM MAPPING	FIGURE NO. 4

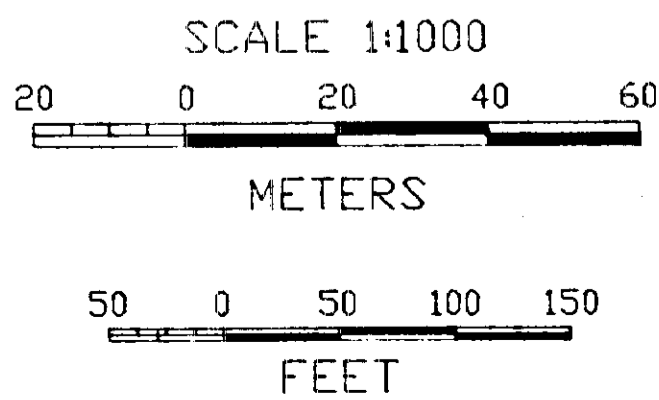
Note: Refer to Fig. 2 for
Location Relative to
Claim Boundaries



LEGEND

- 1 Meta Volcanics - andesite, felsite (brecciated in part)
- 2 Limestone (marble)
- 3 Sulphides (pyrite, pyrrhotite)
- ~ Fault (probable)
- x Rock Sample Location Cu,Pb,Zn Values
- o Silt Sample Location Cu,Pb,Zn Values

Geological Units in this area have been sketched in based on a helicopter recon. (Positions approximate only)



Topographic Contour Interval: 100 ft.

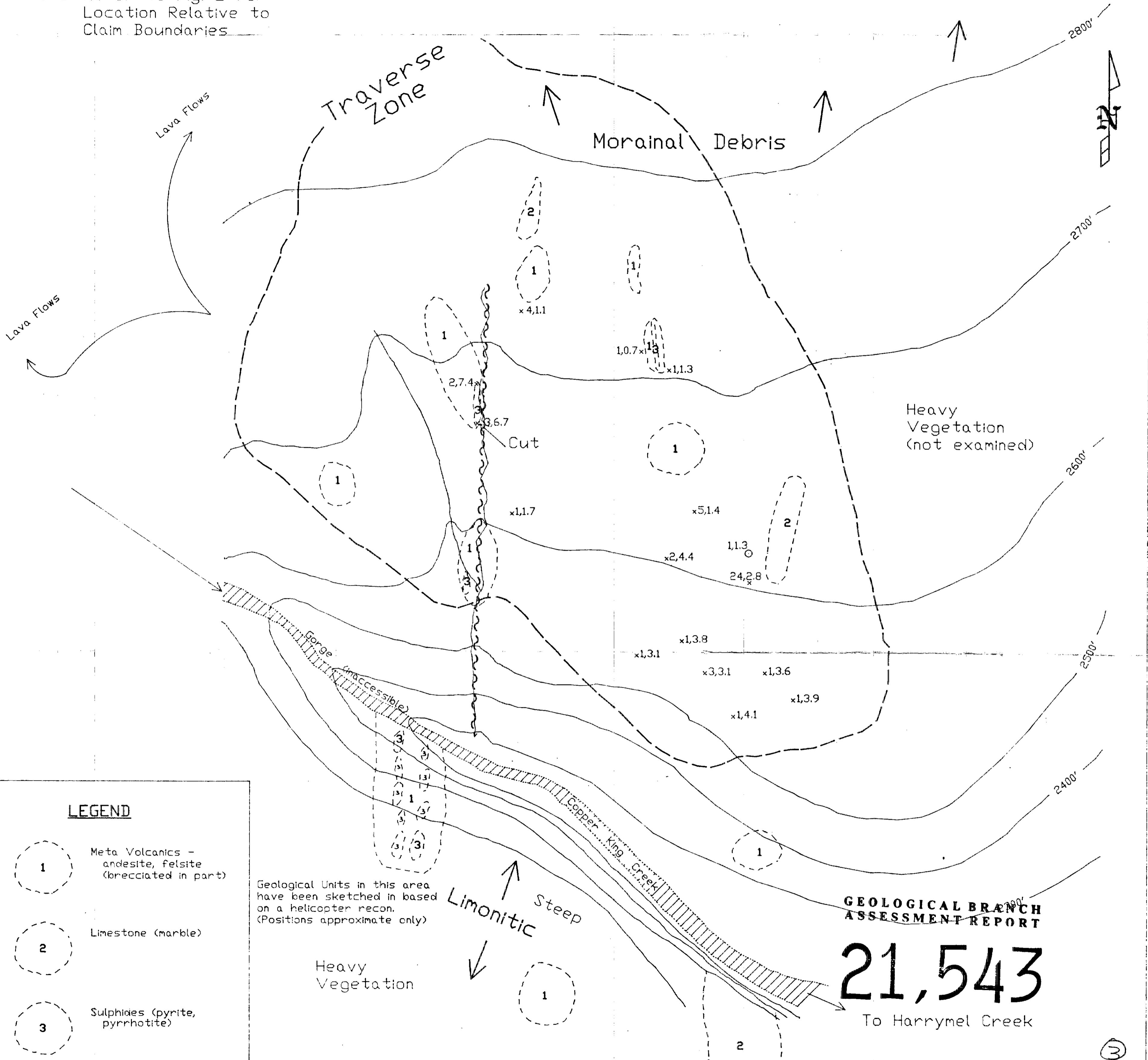
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,543

To Harrymel Creek

②	
TEUTON RESOURCES CORP	
PARADIGM 1 MINERAL CLAIM	
1990 GEOCHEMICAL WORK	
CU,PB,ZN VALUES (ppm)	
SKEENA M.D., B.C.	
After Field Map by J.J. McDougall, P.Eng. January 1991	
N.T.S. 104B/10E	DATE: JULY 22, 1991
PLOTTED BY RPM MAPPING	FIGURE NO. 5

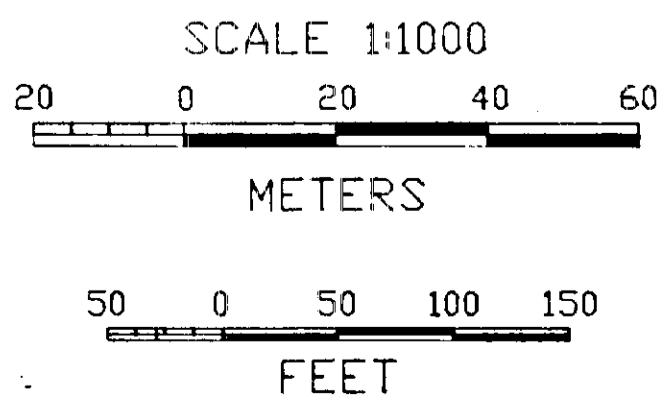
Note: Refer to Fig. 2 for Location Relative to Claim Boundaries



LEGEND

- 1 Meta Volcanics - andesite, felsite (brecciated in part)
- 2 Limestone (marble)
- 3 Sulphides (pyrite, pyrrhotite)
- ~ Fault (probable)
- 24,2.8 Rock Sample Location Au(ppb),Ag(ppm) Values
- 1,1.3 Silt Sample Location Au(ppb),Ag(ppm) Values

Geological Units in this area have been sketched in based on a helicopter recon. (Positions approximate only)



Topographic Contour Interval: 100 ft.

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

21,543

To Harrymel Creek

TEUTON RESOURCES CORP.	
PARADIGM 1 MINERAL CLAIM	
1990 GEOCHEMICAL WORK	
AU(ppb), AG(ppm) VALUES	
SKEENA M.D., B.C.	
After Field Map by J.I. McDougall, P.Eng. January 1991	
N.T.S. 104B/10E	DATE: JULY 22, 1991
PLOTTED BY RPM MAPPING	FIGURE NO. 6