ARIS SUMMARY SHEET

District Geologist, Victoria — Off Confidential: 89.05.06

ASSESSMENT REPORT 17405 — MINING DIVISION: Nanaimo

PROPERTY: Julia
LOCATION: LAT 49 59 00 LONG 125 38 00
UTM 10 5539882 311216
NTS 092F13W
CLAIM(S): Julia
OPERATOR(S): Sawiuk, M.
AUTHOR(S): Brownlee, D.J.
REPORT YEAR: 1988, 24 Pages
GEOLOGICAL
SUMMARY: Copper, zinc, silver and gold mineralization is hosted by a fractured gabbro which has been altered by quartz-sericite +/- chlorite and magnetite.
WORK
DONE: Geochemical
PETR 3 sample(s)
ROCK 10 sample(s) ;ME
MINFILE: 092F

LOG NO: 0520 RD.
ACTION:
FILE NO:

PRELIMINARY RECONNAISSANCE

and

LITHOGEOCHEMICAL SURVEY

of the

JULIA CLAIM

FILMED

Nanaimo Mining Division - British Columbia

Lat. 49° 59' N Long. 125° 38' W

N.T.S. 92 F / 13 E

OWNER : MR. M. SAWIUK

by

Douglas J. Brownlee, Geologist

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,405

April 25, 1988 Vancouver, B.C.

TABLE OF CONTENTS

ILLUSTRATIONS

APPENDICES

SUMMARY

A preliminary survey of the Julia claim, owned by Mr. M. Sawiuk, was conducted by Mr. D. J. Brownlee from November 20-22, 1987, and Mr. M. Sawiuk, November 21, 22, 1987.

The property is underlain by Triassic and/or Jurassic limestone and andesitic volcanic rocks which have been intruded by granodiorite and quartz diorite of the Coast Intrusions. Skarns have formed at the contact of the intrusives and limestone.

The purpose of the survey was to sample and map copper and zinc mineralization (Steller Showing) that was discovered on May 2, 1987. Samples of the high grade sulfide mineralization returned maximum values of 28,400 ppm Cu, 32,400 ppm Zn, 16.4 ppm Ag and 7,120 ppb Au.

INTRODUCTION

A preliminary exploratory reconnaissance and minor lithogeochemical survey was conducted on the Julia claim from November 20-22, 1987. This survey was conducted by D.J. Brownlee, geologist, with the assistance of Mr. M. Sawiuk, geologist. The purpose of the survey was to collect samples of the newly discovered sulfide mineralization known as the Steller Showing and determine by geological mapping its exposed distribution.

LOCATION AND ACCESS

The Julia claim is located some 40 kilometres west of Campbell River, B.C., at approximately 125° 37' W. longitude and 49° 58' N latitude and is covered by N.T.S. sheet 93 F/13E (Figure 1).

Access to the claims is by truck along Highway 28 from Campbell River to upper Campbell Lake and thence by year-round logging roads.

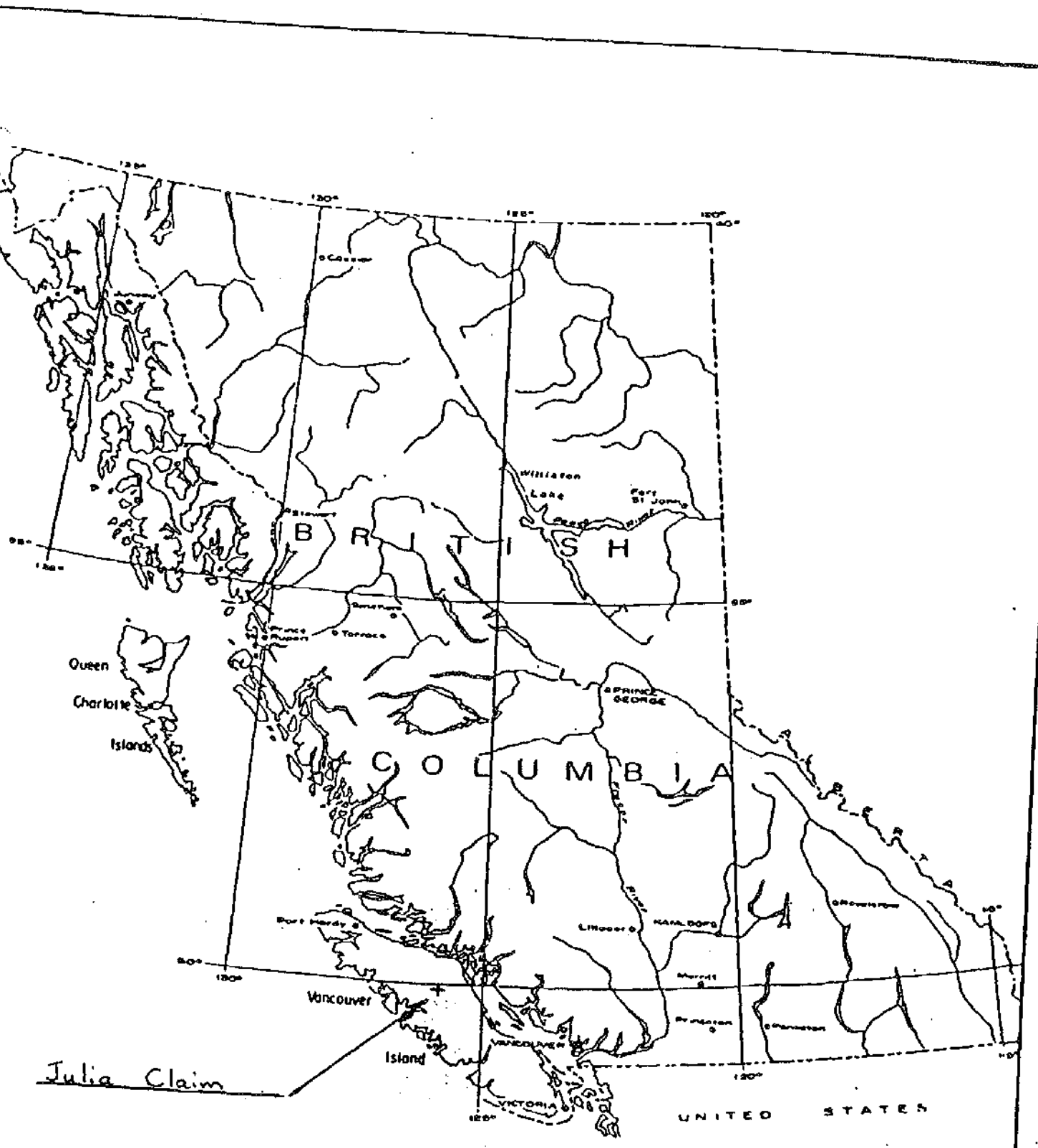


FIGURE 1

LOCATION MAP

CLAIM DATA

The property consists of one 4-post mineral claim called the "Julia" and is 9 units in size. It is recorded at the Nanaimo Mining Division Office under record number 2665. Mr. M. Sawiuk of Vancouver, B.C., is the owner of record. The expiry date is May 11, 1988 (Figure 2).

HISTORY

Magnetite bearing skarns located immediately north and south of the Julia claim area were first discovered in the early 1950's. Argonaut Mines Ltd. conducted a magnetometer survey and drill tested the southern skarn on the Bacon property during the mid to late 1950's. No information exists on the skarn mineralization located north of the Julia claim on Crown grants 1215 and 1216.

The area covered by the Julia claim has apparently not been worked in the past. Recent interest in this area is a result of sulfide mineralization termed the Steller Showing exposed by road construction and discovered on May 2, 1987.

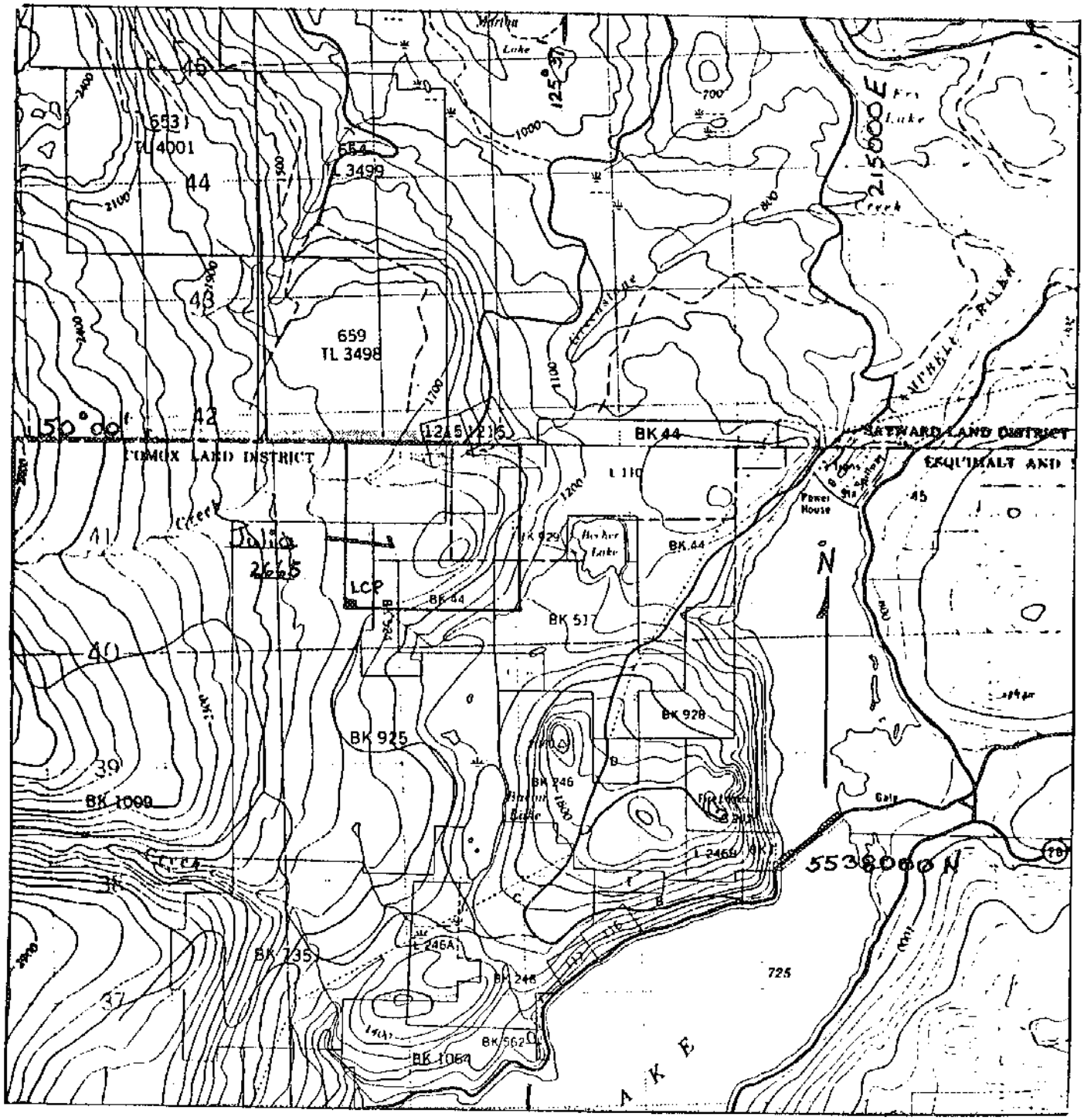
WORK PROGRAM

Two one-day traverses were conducted to outline the extent of the Steller mineralization and locate any additional outcropping exposures.

One outcrop of minor pyrite mineralization was located approximately 10 metres west of Steller. Several rusty zones and limonitic patches also occur on fracture zones/shears that trend parallel to the 016° Steller trend.

GEOLOGY

The property is underlain by Upper Triassic limestone and calcareous shales of the Quatsino Formation. Overlying this unit is Triassic and/or Jurassic tuff, andesitic volcanic breccia and flows with interbeds of argillite, siltstone and limestone.



GUERRA EXPLORATIONS LTD.		
ACCESS AND CLAIM MAP JULIA CLAIM		
Scale 1:50,000	Author M.S	Date April 29/88
NTS 92 F 13, K 4	Drawn By M.S.	FIGURE 2

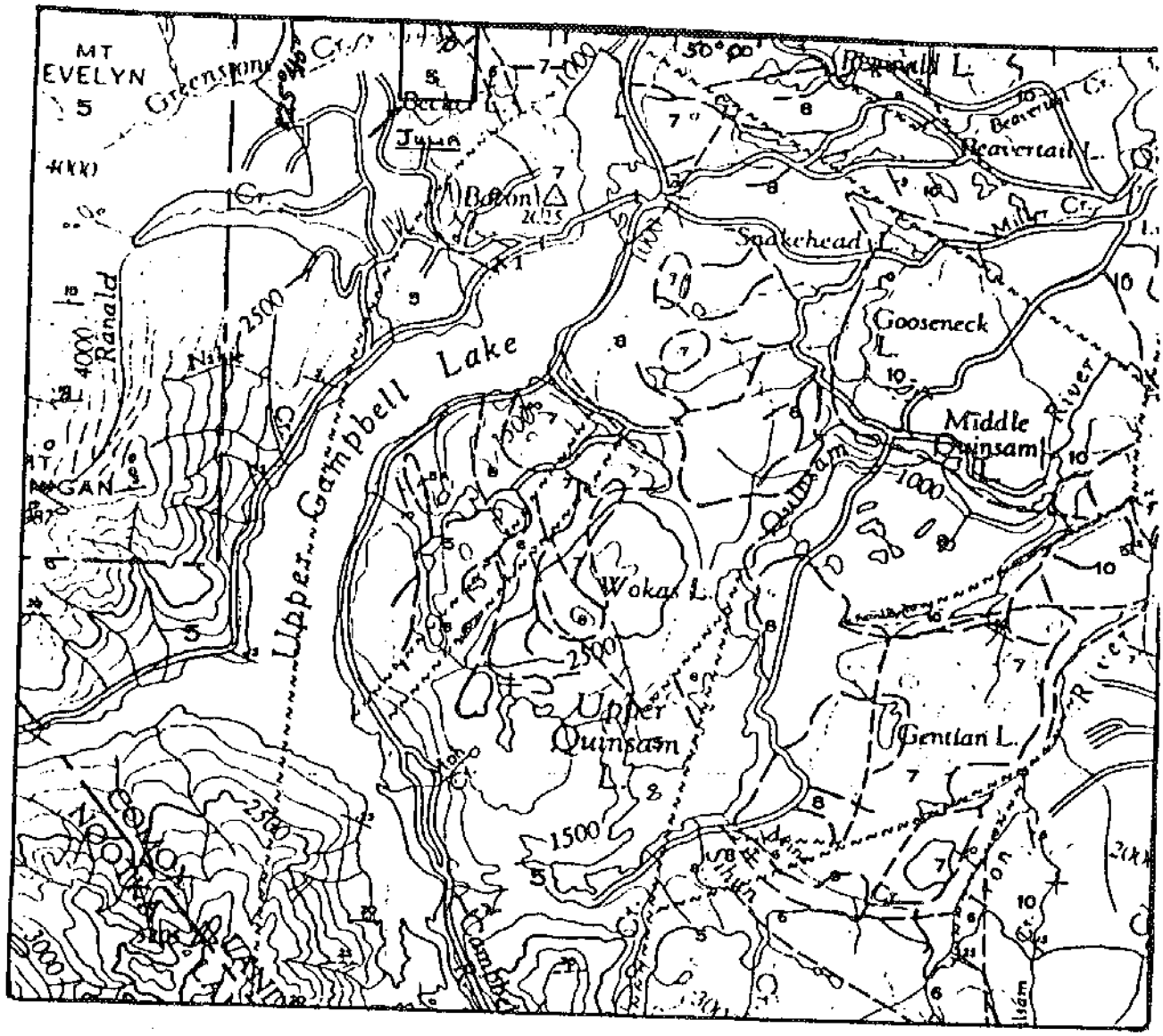
These are intruded by Jurassic and/or Cretaceous granodiorite and quartz diorite of the Coast Intrusions (Figure 3).

The Steller Showing is associated with intrusion of a coarse grained, magnetic gabbro (Appendix II) sill (?) into basaltic volcanic flows of Triassic/Jurassic age. Narrow (to 1 m in width), discontinuous interbeds of finely banded felsic tuff (Bonanza Group ?) are exposed for lengths of 1-2 metres and are subconcordant to the 016° fracture/shear trend.

LITHOGEOCHEMISTRY

A total of nine rock samples were collected from the sulfide-bearing shear zone at Steller and one from sulfide-magnetite float at the north end of the property (Figure 4). These samples (ST and ZR series) were collected to establish the relationship between the shear zone hosted Steller (Figure 5) and the sulfide-magnetite (G series) float mineralization. A description of the rock samples is as follows:

Steller Showing	Description
ST-87-001	Semi-massive pyrite, sphalerite and chalcopyrite with quartz, sericite ± magnetite ± ilmenite replacements. (Top-medial area of shear zone)
ST-87-002	Massive pyrite, chalcopyrite ± sphalerite within quartz ± sericite replacements. (Top-medial area of shear zone)
ST-87-003	Massive pyrite, chalcopyrite ± sphalerite with quartz, siricite ± magnetite. (Top-marginal area of shear zone)
ST-87-004	Quartz, sericite and carbonate within altered gabbro accompanied by pyrite ± chalcopyrite. (Float-base of showing)
ST-87-006	Quartz and siricite ± chlorite within sheared and pyritic volcanic rock. (10 m west of Steller Showing)



CRETACEOUS

UPPER CRETACEOUS

NANAIMO GROUP (9 - 11)

10 COMOX FORMATION: sandstone, pebbly sandstone; minor conglomerate, shale, coal

JURASSIC AND (?) CRETACEOUS

COAST INTRUSIONS

8 Granodiorite; minor quartz diorite

MESOZOIC

TRIASSIC AND (?) JURASSIC

7 VANCOUVER GROUP (5 - 7)
Tuff, andesitic volcanic breccia and lava; argillite, siltstone; includes some rocks of unit 6

TRIASSIC

UPPER TRIASSIC

6 Limestone, calcareous shale; skarn near intrusive contacts

5 Massive, partly amygdaloidal, basalt, pillow basalt, pillow breccia; minor tuff, volcanic breccia
5A: limestone, calcareous siltstone, shale, interbedded in 5

Geological boundary, approximate

Bedding (horizontal, inclined, overturned)

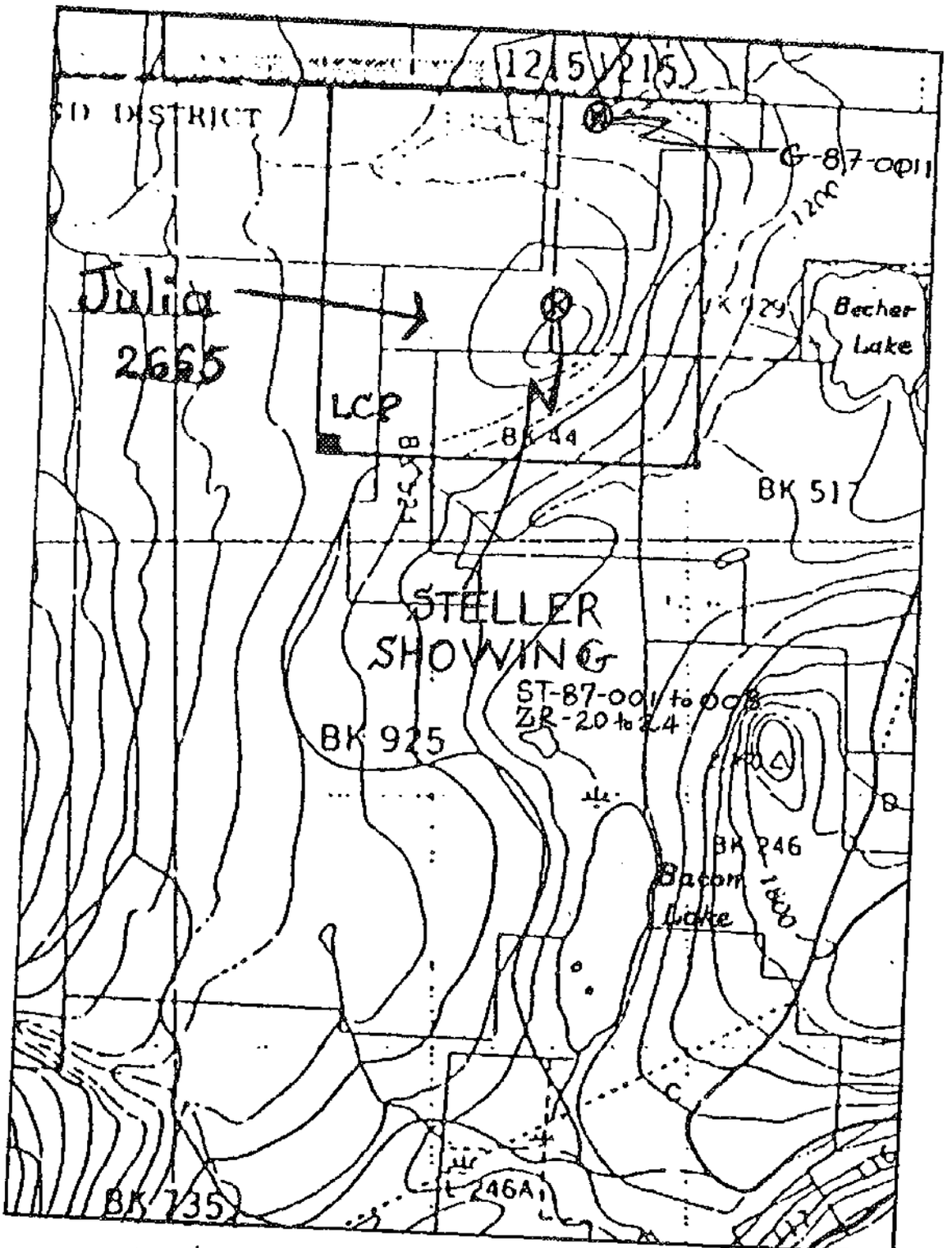
Bedding (observed from distance or from air photos)

Schistosity

Fault, assumed

GUERRA EXPLORATIONS LTD
GEOLOGY MAP
JULIA CLAIM
NANAIMO M.D. 92F 13
April 24, 1988 DRWN BY MS. FIG 3

After J.E. Muller 1964 Map 2-1965



GUERRA EXPLORATIONS LTD.		
SAMPLE LOCATIONS		
Scale 1:25,000 NTS 92 F13, K4	Author M.S Drawn by M.S.	Date April 29/88 FIGURE 4

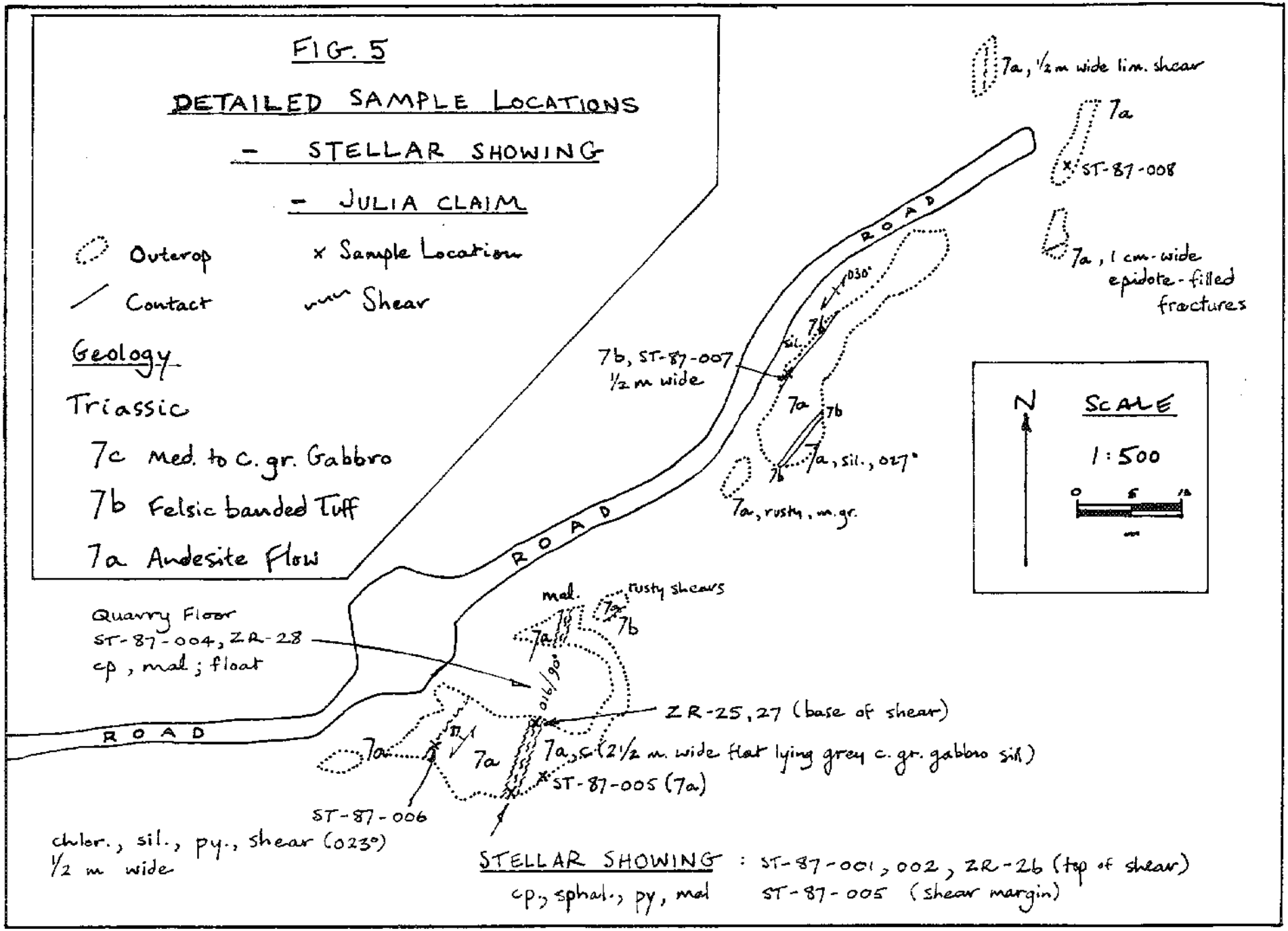


FIG. 5
DETAILED SAMPLE LOCATIONS
- STELLAR SHOWING
- JULIA CLAIM
Outcrop
Contact
× Sample Location
Shear
Geology
Triassic
7c Med. to C. gr. Gabbro
7b Felsic banded Tuff
7a Andesite Flow
7a, ½ m wide lim. shear
7a
ST-87-008
7a, 1 cm-wide epidote-filled fractures
ROAD
030°
7b, ST-87-007
½ m wide
7a
7b
7a, sil., 027°
7a, rusty, m. gr.
N
SCALE
1:500
0 5 10
m
mal.
rusty shears
Quarry Floor
ST-87-004, ZR-28
cp, mal; float
016/90°
ZR-25, 27 (base of shear)
7a, sil. (2½ m. wide flat lying grey c. gr. gabbro sill)
ST-87-005 (7a)
ST-87-006
chlor., sil., py., shear (023°)
½ m wide
STELLAR SHOWING : ST-87-001, 002, ZR-26 (top of shear)
cp, sphal., py, mal ST-87-005 (shear margin)

Steller Showing	Description
ZR - 25	Semi-massive pyrite ± chalcopyrite ± sphalerite within a chloritic, fine grained andesite. (Base-medial area of shear zone)
ZR - 26	Massive pyrite, chalcopyrite and sphalerite with minor quartz, sericite, carbonate and ilmenite. (Top-medial area of shear zone)
ZR - 27	Quartz ± sericite ± carbonate with minor pyrite ± chalcopyrite ± ilmenite. (Float-base of showing)
Sulfide-Magnetite Float	
G-87-001	Massive pyrite with magnetite and minor chalcopyrite.

Pyritic material from various portions of the Steller shear zone (Top versus Base of the 4 m vertical exposed face) are generally all enriched in copper to a maximum of 28,400 ppm (ST-87-002). Copper enrichment shows a close correlation with silver reaching a maximum of 16.4 ppm in ST-87-003. Although zinc values generally accompany copper enrichment the correlation is only moderate. The two highest zinc responses that include 32,400 ppm (ST-87-001) and 32,605 ppm (ZR - 26) correspond to 200 ppb and 7,120 ppb gold respectively.

Sample G-87-001 indicated that only a minor amount of the visible sulfide mineralization in this sample contained chalcopyrite as copper registered 2,100 ppm. The lack of silver and gold enrichment in this copper poor sample remains inconclusive as to the relationship of the sulfide-magnetite float to the Steller mineralization.

CONCLUSION

The Steller polymetallic sulfide mineralization is hosted within sheared/fractured gabbro that is altered by quartz-sericite ± chlorite and associated with magnetite. Lithogeochemical results indicate the meter wide shear to be associated with copper, zinc, silver and gold. Precious metals appear to correlate closest with zinc enrichment

although elevated copper values were present in most of the samples taken. Magnetite float containing sulfides located at the north end of the property showed no gold or silver.

A follow-up program of geochemical and magnetic surveys along with geological mapping should be carried out. Should results be successful, then a follow-up program of trenching and diamond drilling would be warranted.

REFERENCES

Muller, J.E. G.S.C. Map 2-1965, Comox Lake Area.

Open Files Selected company reports, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Division, Open Files 92F.

AUTHOR'S STATEMENT OF QUALIFICATIONS

I, Douglas J. Brownlee, do hereby certify that:

1. I live at 101 - 2615 Lonsdale Avenue, North Vancouver, B.C.

2. I hold a B.Sc. (Spec. Geology) 1980 from the University of Alberta, Edmonton, Alberta.

3. I have practised my profession as a geologist since 1980.

4. I conducted the work outlined in this report from November 20 to November 22, 1987.

Douglas J. Brownlee
Geologist

APPENDIX I

LITHOGEOCHEMICAL RESULTS

ROSSBACHER LABORATORY LTD.

2223 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
614-850 W. HASTINGS STREET
VANCOUVER B.C.

PROJECT: GUERRA
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 87194
INVOICE#: 7602
DATE ENTERED: 87-05-07
FILE NAME: A&M87194
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM Cu	PPM Co	% Fe	PPM Ag	PPM Zn	PPB Au	PPM Cd
A	B-87-001	16	13200	20.0	3.2		21500	
A	B-87-002	600	186	36.5	8.0		280	
A	B-87-003	730	78	16.4	1.0		40	
A	B-87-004	26	22	35.0	0.8		5	
A	ST-87-001	11800			8.4	32400	200	364
A	ST-87-002	28400			12.4	264	20	
A	ST-87-003	23600			16.4	8900	80	
A	ST-87-004	17600			12.0	20000	130	
A	G-87-001	2100			1.4		5	

CERTIFIED BY : J. Rossbacher

ROSSBACHER LABORATORY LTD.

3725 E. BRITANNIA DRIVE
BURNABY, B.C. V5E 2N1
TEL : 604-299-[illegible]

CERTIFICATE OF ANALYSIS

TO : GUERRA EXPLORATIONS LTD.,
701-1330 NORWOOD ST.,
VANCOUVER, B.C.

PROJECT:

TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 87074
INVOICE#: 90759
DATE ENTERED: 87 10 21
FILE NAME: GR87074
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPB Au
A	ST 87-006	>10000	8.2	468	5

CERTIFIED BY : R. Rossbach

ACME ANALYTICAL LABORATORIES 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

RECEIVED SEP 17 1987

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock Chips AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. *G ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: SEPT 07 1987 DATE REPORT MAILED: Sept 16/87 ASSAYER... D. Toye ..DEAN TOYE, CERTIFIED B.C. ASSAYER

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB	HG PPB
ZR-14	1	52	25	80	.2	1	32	1011	54.78	34	5	ND	9	2	2	2	2	1	.13	.002	2	15	.05	5	.01	9	.34	.01	.03	1	1	30
ZR-15	1	49	21	206	.2	11	29	1375	53.13	15	5	ND	9	3	2	3	7	1	.15	.001	2	15	.08	8	.01	2	.44	.01	.04	1	8	40
ZR-16	1	71	25	90	.1	17	26	1009	54.91	29	5	ND	8	4	2	2	2	1	.62	.012	2	17	.11	7	.01	2	.55	.01	.04	1	1	30
ZR-17	1	42	22	77	.1	3	24	789	48.12	13	5	ND	6	3	2	3	11	1	.18	.003	2	12	.04	6	.01	22	.37	.01	.03	1	35	5
ZR-18	4	945	15	58	5.2	14	47	1185	30.09	727	5	ND	6	2	2	2	23	1	5.70	.027	2	10	.06	9	.03	2	.48	.01	.03	1	68	5
ZR-19	1	37	21	54	.1	2	27	1012	51.35	42	5	ND	9	10	2	4	3	1	1.28	.016	2	15	.10	6	.01	3	.46	.01	.02	1	2	10
ZR-20	1	48	9	26	.1	1	6	911	2.43	7	5	ND	1	44	1	2	2	8	2.18	.010	3	2	.30	43	.08	2	.95	.02	.16	1	1	5
ZR-21	1	20	10	34	.4	12	2829	2353	24.85	4761	5	6	1	6	1	2	75	12	7.42	.023	2	1	.05	2	.01	11	.17	.01	.02	1	10640	5
ZR-22	1	38	21	47	1.4	5	229	886	49.63	314	5	ND	7	9	1	3	4	1	.99	.003	2	14	.08	9	.01	17	.37	.02	.03	1	505	5
ZR-23	1	35	11	47	.2	5	61	1562	41.92	90	5	ND	7	10	1	2	2	1	1.37	.048	2	11	.12	16	.01	2	.33	.02	.04	1	1260	5
ZR-24	1	8	10	16	.3	4	9	314	2.10	12	5	ND	5	44	1	2	2	31	1.66	.053	3	2	.37	21	.13	2	1.25	.13	.03	1	13	5
ZR-25	3	8016	24	460	.1	32	36	1053	8.10	23	5	ND	1	21	3	2	29	100	.63	.074	7	30	1.67	25	.35	2	2.41	.03	.05	3	116	40
ZR-26	30	16569	22	32605	12.3	17	45	530	4.08	10	5	3	3	8	301	2	42	33	.26	.023	2	18	.54	19	.15	2	1.10	.01	.08	1	7120	70
ZR-27	1	217	14	145	.1	30	29	501	8.38	2	5	ND	1	14	1	2	2	295	1.17	.077	8	8	1.31	3	.48	2	1.65	.05	.01	1	16	10
ZR-28	1	461	10	166	.1	42	21	493	5.76	3	5	ND	1	48	2	2	2	150	1.81	.034	5	15	1.40	9	.38	2	3.06	.17	.02	1	21	20
ZR-29	1	40	13	162	.3	4	53	1443	47.01	19	5	ND	8	6	2	3	7	1	1.62	.003	2	12	.09	6	.01	2	.34	.01	.02	1	4	10
ZR-30	1	44	16	85	.1	39	55	1841	42.52	13	5	ND	8	8	1	3	5	1	1.45	.003	2	7	.12	3	.01	2	.31	.01	.02	1	1	40
ZR-31	1	34	20	132	.1	20	39	1705	41.37	12	5	ND	7	3	2	2	2	1	2.61	.003	2	8	.14	3	.02	2	.57	.01	.02	1	1	20
STD C/AU-R	19	63	41	134	7.1	71	29	1021	6.87	36	20	8	45	51	18	18	22	55	.49	.088	39	62	.91	169	.08	31	1.99	.05	.13	11	505	1400

JULIA

APPENDIX II

RESULTS OF PETROGRAPHIC STUDIES

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph. D. Geologist

P.O BOX 39
8887 NASH STREET
FORT LANGLEY, B C
V0X 1J0

PHONE (604) 888-1323

Report for: Myron Sawiuk,
Guerra Explorations Ltd.,
701 - 1330 Haywood Street,
Vancouver, B.C. V6E 1S8

Invoice 6984
December 1987

Samples: ST-87-001 (2 samples), ST-87-005

Summary:

The samples are of a gabbro which was altered and replaced by quartz-sulfides. The gabbro is dominated by plagioclase and clinopyroxene, with moderately abundant hematite-ilmenite (possibly after magnetite), and accessory acicular apatite. Chlorite forms moderately abundant, subrounded and irregular interstitial patches.

Sulfides are dominated by pyrite and sphalerite with much less abundant chalcopyrite and a trace of galena.

ST-87-005 gabbro; plagioclase altered slightly to epidote and chlorite; clinopyroxene forms two phases, one in cores of grains, which is partly altered to quartz-tremolite-calcite, and the other in rims and unzoned grains, which is slightly altered to epidote-calcite.

ST-87-001 altered gabbro, cut and replaced by quartz-sulfides. Gabbro is much more strongly altered than in sample ST-87-005, with plagioclase replaced by sericite, clinopyroxene replaced by quartz-plagioclase(?)-limonite, and hematite-ilmenite replaced completely by Ti-oxide-pyrite. The vein and silicified replacement zone are dominated by quartz with lesser pyrite and minor chalcopyrite; textures are gradational from quartz-sericite replacement to quartz-sulfide vein.

ST-87-002 very strongly altered gabbro, replaced almost completely by quartz-pyrite-sphalerite with minor chalcopyrite.

John G. Payne

ST-87-001 Altered Gabbro replaced by Quartz-Pyrite

Least altered parts of the rock show textures similar to those of Sample ST-87-005. Plagioclase is altered to sericite, pyroxene to quartz/plagioclase(?-limonite, and ilmenite to Ti-oxide. Chlorite forms subrounded patches. The rock contains replacement patches of pyrite and patches and veins of quartz with minor sulfides.

clinopyroxene	25-30%		
plagioclase	17-20		
pyrite	5- 7		
quartz	minor		
Ti-oxide	4- 5		
sphene	trace		
chlorite patches	7- 8		
replacement			
quartz	20-25	chlorite	1%
pyrite	3- 4	chalcopyrite	0.2
sericite	1- 2	sphalerite	minor

Clinopyroxene forms anhedral to subhedral prismatic grains up to 1.7 mm in length. It is altered completely to extremely fine to very fine grained aggregates of quartz/plagioclase with moderately abundant dusty limonite, which gives much of the assemblage a light to medium orange color. Chlorite forms a few replacement patches up to 0.3 mm in size.

Plagioclase forms anhedral grains up to 1 mm in size. It is altered completely to very fine to extremely fine grained, unoriented sericite flakes.

Pyrite forms anhedral to euhedral grains averaging 0.1-0.7 mm in size. Pyrite commonly is intergrown with Ti-oxide, and may have formed in part by replacement of Fe-Ti-oxides. A few contain minor inclusions of sphalerite and chalcopyrite, and trace amounts of galena. A few have minor overgrowths of very fine grained quartz up to 0.05 mm in width.

Ti-oxide forms anhedral patches up to 1.5 mm in size; it is secondary after intergrowths of hematite-ilmenite, whose textures are identical to those of patches of hematite-ilmenite in sample ST-87-005.

The rock is cut by a late quartz-sulfide vein which is rimmed by an irregular zone of strong silicification. The vein has a very variable texture, with fine to medium grains of quartz intergrown with much finer aggregates of quartz with minor sericite. The zone of silicification is dominated by quartz with lesser sericite. Chlorite forms extremely fine to very fine grained patches scattered in the vein and replacement zone.

Pyrite is concentrated as subhedral grains up to 1 mm in size in a zone along the axis of the quartz vein. Textures are similar to those for pyrite in the altered rock. Chalcopyrite forms a few patches up to 0.6 mm in size and more common patches from 0.03-0.07 mm across. Minor chalcopyrite grains are interstitial to pyrite.

Sphalerite forms a few anhedral patches up to 0.07 mm in size intergrown with quartz and associated with chalcopyrite. These grains contain minor exsolution blebs of chalcopyrite.

ST-87-002 Quartz-Pyrite-Sphalerite-Chalcopyrite-Sericite Altered Rock

The rock contains minor relic patches dominated by plagioclase, and more strongly altered zones of quartz-sericite and of quartz-sulfides, in which original textures were destroyed. Sulfides are dominated by pyrite and sphalerite, with lesser chalcopyrite.

quartz	55-60%
pyrite	20-25
sphalerite	12-15
chalcopyrite	1- 2
sericite	1
plagioclase	0.2
Ti-oxide	minor
chlorite	trace

The rock contains a few relic patches up to 0.3 mm across of very fine grained plagioclase. A few patches up to 1 mm across consist of relic plagioclase and surrounded by extremely fine grained sericite and lesser chlorite. No other original texture is preserved. The rock was altered to extremely fine grained aggregates of quartz with minor to moderately abundant sericite flakes, patches, and seams., and with minor chlorite patches.

With increasing intensity of silicification, these patches grade irregularly into coarser grained quartz. Grain size averages 0.05-0.1 mm, with a few patches containing grains up to 1.2 mm in size. Textures in coarser grained quartz (over 0.2 mm) are suggestive of vein quartz.

Ti-oxide forms scattered relic patches up to 0.1 mm in size, in part associated with sericite.

Pyrite forms anhedral to euhedral grains averaging 0.1-0.5 mm in size associated with very fine to fine grained quartz. Many smaller grains are euhedral cubes; these occur with the coarser grains and also form disseminated grains in extremely fine grained patches of altered rock (quartz-sericite). Coarser grains commonly are cut by fractures up to 0.2 mm in width, which are filled with sphalerite and/or chalcopyrite. These minerals also occur in interstitial patches between pyrite grains. Chalcopyrite and pyrrhotite form a few inclusions up to 0.02mm in size in pyrite.

Sphalerite also forms anhedral patches up to several mm in size. typically it contains exsolution blebs of chalcopyrite averaging 0.003-0.01 mm in size. It is intergrown irregularly with very fine grained quartz along borders of patches. The color is medium orange, with a few grains grading outwards to pale orange rims.

Chalcopyrite occurs mainly as interstitial patches between pyrite grains, fracture-fillings in pyrite, and as exsolution blebs in sphalerite. A few patches up to 0.6mm in size are coarsely intergrown with sphalerite.

Chlorite forms a very few interstitial patches up to 0.2 mm in size of grains averaging 0.05-0.1 mm across.

The rock contains a few wispy seams in which quartz or plagioclase was granulated and recrystallized to much finer grained aggregates.

APPENDIX III

STATEMENT OF COSTS

STATEMENT OF COSTS

Personnel Mobilization and Fieldwork

D.J. Brownlee, Geologist November 20-22, 1987	3 days @ $150/day	$ 450.00
M. Sawiuk, Geologist November 21, 22, 1987	2 days @ $150/day	300.00

Field Expenses

Ferry	1 vehicle, 2 people 2 trips @ $25.00	50.00
Accommodations	2 nights @ $41.04	82.08
Meals	5 man-days @ $25.00	125.00
Vehicle Rental		94.03
Fuel		47.10

Lithogeochemistry

ICP Geochemistry

30 element ICP + Au (by AA.) + Hg (by AA) + sample prep
= 6.25 + 4.50 + 2.50 + 3.00
= 16.25 X 4 samples = $65.00 — 65.00

AA Geochemistry

1 geochem analysis for 2 elements	@	$ 2.60	= $ 2.60
4 geochem analysis for 4 elements	@	3.70	= 14.80
1 geochem analysis for 3 elements	@	3.20	= 12.80
6 geochem analysis for Au	@	4.00	= 24.00
6 assay preparation	@	3.00	= 18.00
			$72.20

72.20

Petrographic Work

3 polished thin sections, descriptions & shipping @ $77.08 — 231.25

Report

Preparation and typing — 200.00

GRAND TOTAL $1,716.66