

Nanoose Geoservices
2960 Anchor Drive, Nanoose Bay, B.C. V9P 9G2

MINERAL TITLES BRANCH Rec'd. MAY 07 1998 L.I.# _____ File _____ VANCOUVER, B.C.
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ASSESSMENT REPORT ON THE
LEM1 TO LEM6 MINERAL CLAIMS
NANAIMO MINING DIVISION
BRITISH COLUMBIA

N.T.S. 92L\05

Latitude: 50° 24' 30" N
Longitude: 127° 53' 00" W

For

David Pawliuk

2960 Anchor Drive
NANOOSE BAY, British Columbia, Canada
V9P 9G2

By

David J. Pawliuk, P. Geo.

April 30, 1998

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

Lemare01.rpt

25,501

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	1
INTRODUCTION	2
LOCATION AND ACCESS	2
TOPOGRAPHY AND VEGETATION	2
PROPERTY	3
HISTORY	3
REGIONAL GEOLOGY	4
REGIONAL MINERALIZATION	4
SAMPLING	5
CONCLUSION	5
BIBLIOGRAPHY	6
CERTIFICATE OF QUALIFICATIONS	7
STATEMENT OF COSTS	8

APPENDIX

Appendix 1: Geochemical analysis certificate	At End
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FIGURES

	<u>Following Page</u>
Figure 1: Location Map	2
Figure 2: Claim Map	3
Figure 3: Regional Geology Map	4
Figure 4: Regional Mineralization Model	4
Figure 5: Prospecting, Sampling LEM 1-6 Claims	Pocket

SUMMARY

The LEM property is located on northwestern Vancouver Island, 32 km west-northwest of the town of Port Alice and west of the southern end of LeMare Lake.

Geochemical rock sampling and prospecting were performed.

The LEM property is underlain by a bimodal sequence of mafic and felsic volcanic rocks of the Upper Jurassic Bonanza Formation. The rocks strike northwesterly to northeasterly, and dip from 20^o to 40^o southwest to northwest. The property is within a fault-bounded structural block.

Five rock samples were analyzed for gold by acid leach and atomic absorption, and for 30 trace elements by I.C.P. The samples contain up to 27.9 parts per million (ppm) copper, 12.5 ppm lead, 5.4 ppm zinc, 245 ppb silver and up to 3 ppb gold.

The five rock samples collected during the 1997 work programme contain low metal concentrations.

INTRODUCTION

A small mineral exploration program was performed on the LEM1 - 6 mineral claims, northwestern Vancouver Island, British Columbia. The work consisted of geochemical rock sampling and prospecting.

LOCATION AND ACCESS

The Lemare property is located 32 km west-northwest of the town of Port Alice, British Columbia (Figure 1). The driving distance from Port Alice to the property is approximately 70 km. The property is 37 km southwest of the now-depleted Island Copper porphyry copper deposit.

The claims are centred at 50° 24' 30" latitude and 127° 53' 00" longitude, within N.T.S. map-sheet 92L/05W, in the Nanaimo Mining Division. The claims are situated west of the southern end of LeMare Lake (Figure 2).

Property access is via spur roads which extend southwards from "Restless Main" logging road, or by helicopter. The B.C. Ministry of Employment and Investment is currently considering permanent deactivation of the spur roads in the LeMare Lake area.

TOPOGRAPHY AND VEGETATION

Ground elevations within the property area range from LeMare Lake at approximately 25 m up to 480 m a.s.l. along the western side of the property.

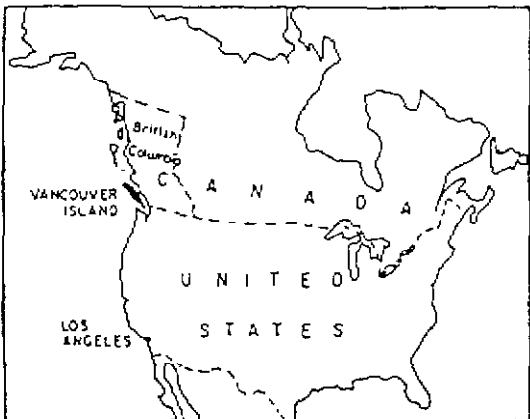
The property area was logged several years ago. Second growth cedar and fir cover the area. Alders and berry bushes are present along creeks and roadsides within the area. *Traverses are difficult in areas of previous logging activity because of the dense second growth.*

Rock outcrops are exposed in logging road cuts, within creek gullies and on the steeper slopes.



PROPERTY

SCALE



LEM1 - LEM6 MINERAL CLAIMS	
Northern Vancouver Island	
LOCATION MAP	
Date: April 1998	Figure 1

PROPERTY

The property consists of six two-post mineral claims within N.T.S. map-sheet 92L/05W in the Nanaimo Mining Division. The claims are shown on figure 2, and are listed below:

<u>Name</u>	<u>Tenure No.</u>	<u>Units</u>	<u>Expiry date</u>	<u>Recorded owner</u>
LEM1	353575	1	6 February 2001	David Pawliuk
LEM2	353580	1	6 February 2002	David Pawliuk
LEM3	353579	1	6 February 2001	David Pawliuk
LEM4	353578	1	6 February 2001	David Pawliuk
LEM5	353577	1	6 February 2002	David Pawliuk
LEM6	353576	1	6 February 2003	David Pawliuk

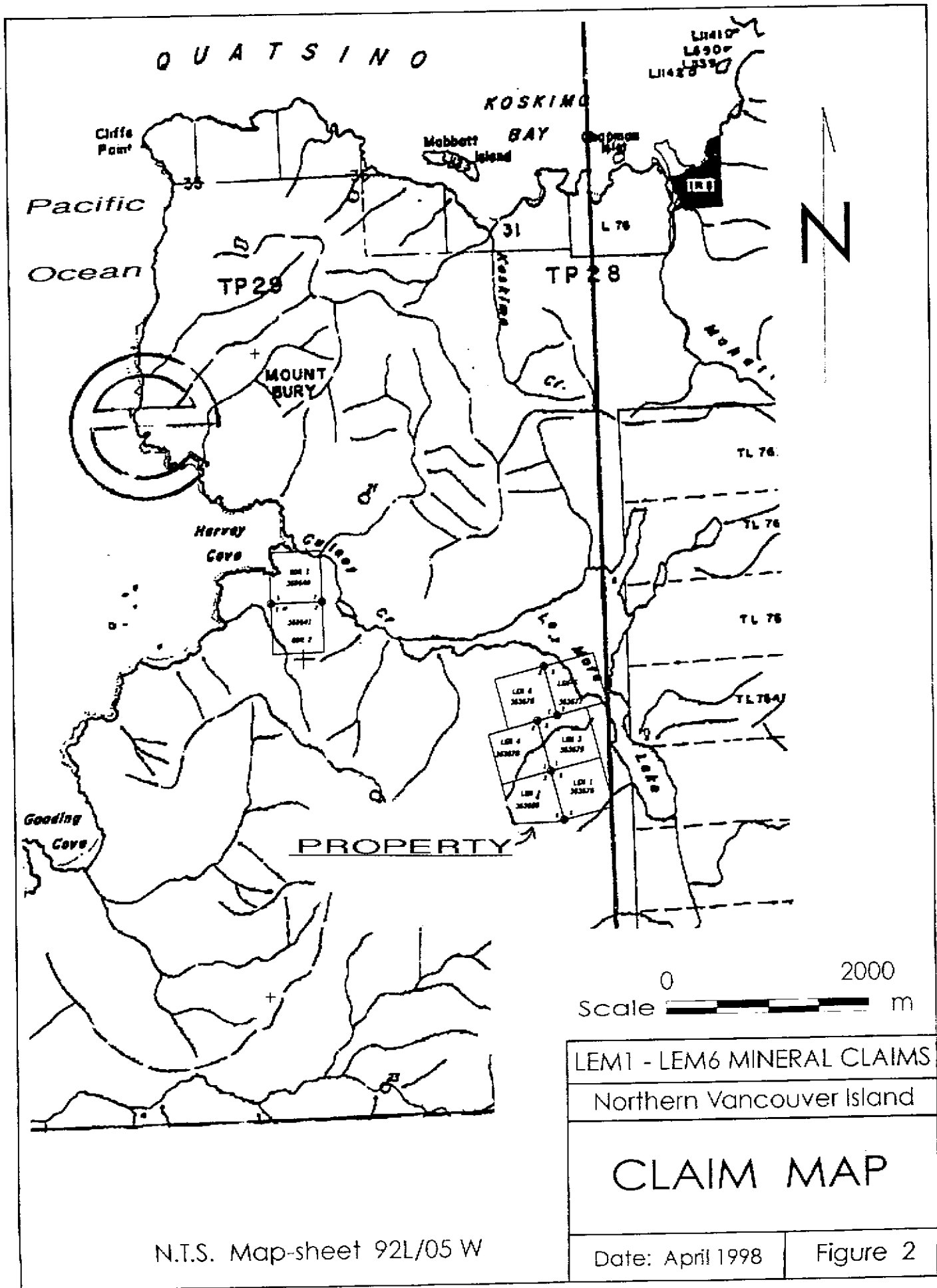
HISTORY

Exploration of the LeMare property area began with the staking of the CAM claims along the north shore of LeMare Lake during 1970 (Heberlein, 1993). British Newfoundland Exploration staked the same area during 1980, and did a small amount of prospecting work (Bilquist, 1980).

Keewatin Engineering Inc. re-staked the area for Stow Resources Ltd. in May, 1991. Reconnaissance geological mapping, soil sampling, moss-mat sampling and rock geochemical sampling were performed during 1991. Two areas with potential porphyry-style alteration and mineralization were delineated (Birkeland, 1991). Petrographic work indicated that one of these areas, the South Gossan Zone, could be underlain by a porphyry copper system (Leitch, 1991).

In early 1992 Minnova Inc. optioned the property from Stow Resources Ltd. A helicopter-borne magnetic, electromagnetic, VLF-EM and radiometric survey of the area was flown (Woolham, 1992).

Minnova Inc. also performed geological mapping during 1992. X-ray diffraction work by Thompson (1992) indicated that a porphyry copper system could underlie the South Gossan Zone. A total of 282 whole rock analyses were performed by Minnova Inc. over the property area. Holmes (1993) described the petro-chemistry of three basalts, three intermediate rocks and three rhyolites selected from the suite of whole rock analyses. He determined that the basalts and rhyolites were comagmatic; the intermediate rocks are not comagmatic, and are derived from at least three separate magma batches. Geochemical rock sampling and moss-mat sampling were done over the entire property area. A VLF-EM survey was done over a small grid to ground-check an airborne EM anomaly. Soil samples were also collected along the VLF-EM survey grid lines.



Diamond drill targets were generated at the South Gossan Zone and also at the Cullett Creek Zone as a result of Minnova Inc.'s summer 1992 work programme. These two target areas were tested with diamond drill holes during late 1992. Five holes totalling 787.0 m were drilled at the Cullett Creek zone. One hole 114.1 m in length was drilled at the South Gossan Zone. Drilling results were disappointing. Drillholes in the Cullett Creek zone intersected rocks only weakly mineralized with chalcopyrite. No ore grade intersections were obtained (Heberlein, 1993). Minnova Inc. dropped their option on the property and the claims were allowed to lapse.

REGIONAL GEOLOGY

Northwestern Vancouver Island is underlain by rocks of the Vancouver Group. These rocks range in age from Upper Triassic to Lower Jurassic (Muller, Northcote and Carlisle, 1974). They are intruded by rocks of Jurassic and Tertiary age, and disconformably overlain by Cretaceous sedimentary rocks (Figure 3).

The Vancouver Group rocks include Bonanza Formation volcanic breccias and flows. Granodiorite and monzonite intrusions of lower Jurassic age, the Island Intrusions, are associated with porphyry copper deposits at northern Vancouver Island. These intrusions are interpreted to be coeval with the Bonanza Formation rocks, as at the Island Copper orebody.

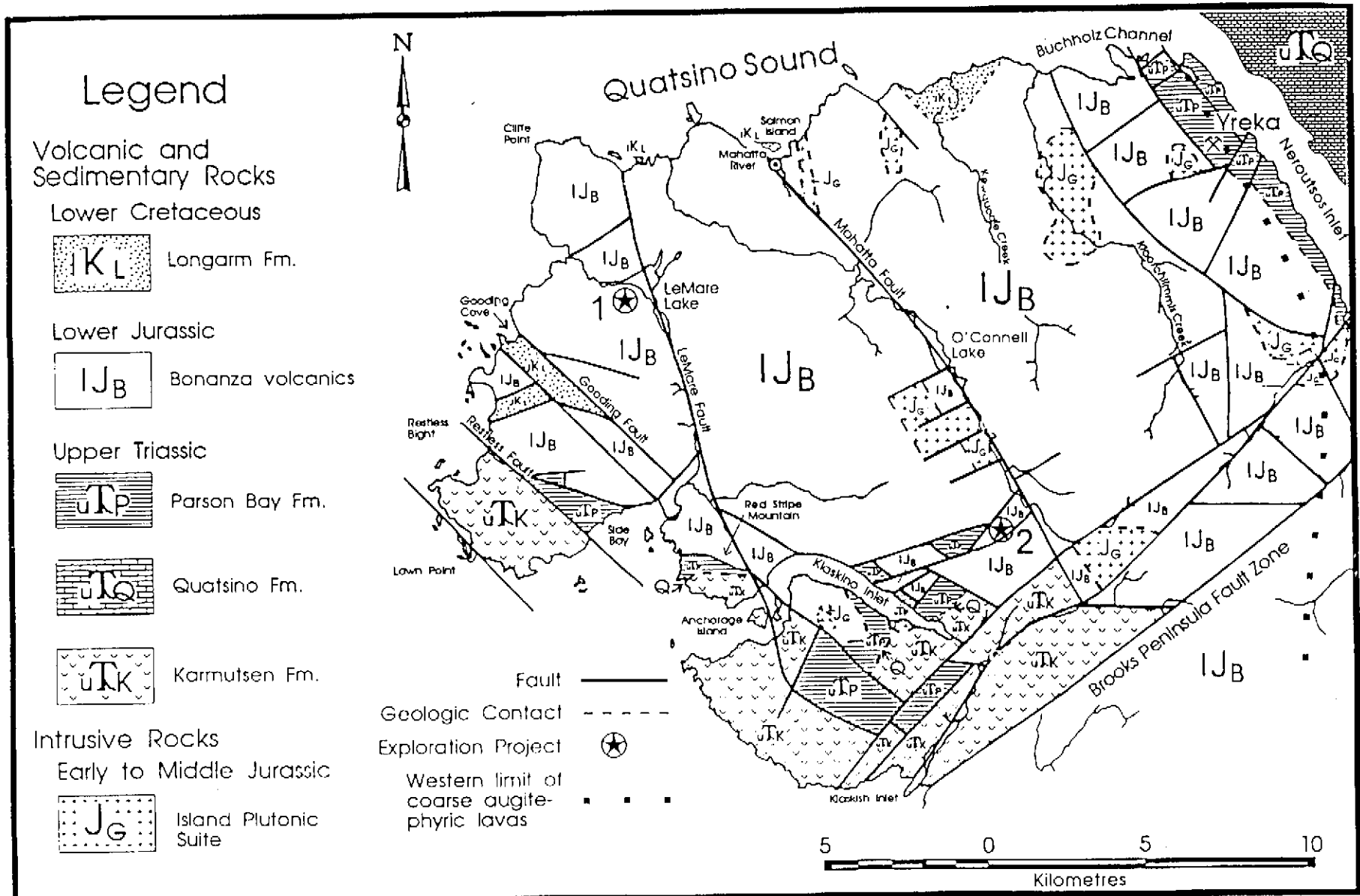
Faulting is prevalent in the area. The property is within a fault-bounded block delineated by Muller (1977). The stratified rocks trend generally northerly to northwesterly.

REGIONAL MINERALIZATION

A number of types of mineral occurrences are known on northern Vancouver Island. These include:

1. Skarn deposits: copper-iron and lead-zinc skarns,
2. Copper in mafic volcanic rocks (Karmutsen): in amygdules, fractures, small shears and quartz-carbonate veins, with no apparent relationship to intrusive rocks,
3. Veins: with gold and/or base metal sulphides, related to intrusive rocks,
4. Porphyry copper deposits: largely in the country rock surrounding or enveloping granitic rocks and their porphyritic phases.

The variety of mineral occurrences indicates that extensive hydrothermal mineralizing systems operated throughout the northwestern part of the island. The diverse deposit types are schematically shown in relation to the regional geology on figure 4.

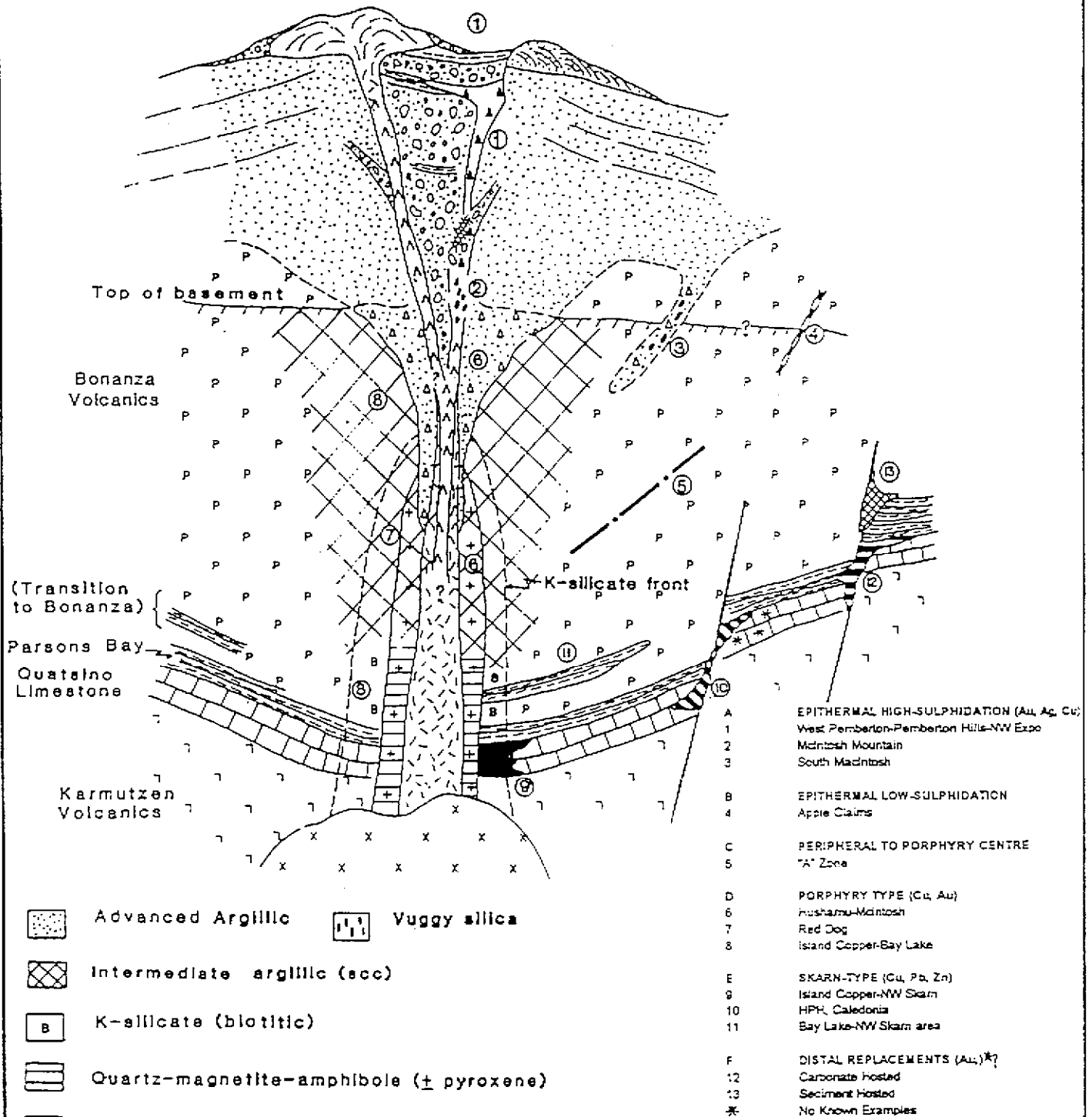


REGIONAL GEOLOGY

FIGURE 3

Geology after Nixon et al, 1993

MINERALIZATION STYLES IN THE ISLAND ARC ASSEMBLAGES OF NORTHERN VANCOUVER ISLAND



LEM1 to LEM6 MINERAL CLAIMS

Northern Vancouver Island

**REGIONAL
MINERALIZATION
MODEL**

Date: April 1998

Figure 4

PROPERTY GEOLOGY, SAMPLING

The LEM property is underlain by a bimodal sequence of mafic and felsic volcanic rocks of the Upper Jurassic Bonanza Formation. The rocks strike northwesterly to northeasterly, and dip from 20⁰ to 40⁰ southwest to northwest (Heberlein, 1993).

Figure 5 shows the location of the rock samples collected during the 1997 work programme. Five rock samples were analyzed for gold by acid leach and atomic absorption, and for 30 trace elements by I.C.P. The samples were analyzed by Acme Analytical Laboratories Ltd., Vancouver, British Columbia (Appendix 1). The samples contain up to 27.9 parts per million (ppm) copper, 12.5 ppm lead, 5.4 ppm zinc, 245 ppb silver and up to 3 ppb gold.

CONCLUSION

The five rock samples collected during the 1997 work programme contain low metal concentrations.

BIBLIOGRAPHY

- Bilquist, R.J. (1980) Prospecting report prepared by D.G. Leighton & Associates Ltd. BCMEMPR assessment report 8593.
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- Leitch, C.H.B. (1991) Petrographic report on 26 specimens from the LeMare property on Vancouver Island, British Columbia. Private report for Keewatin Engineering Inc. October 14, 1991.
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- Muller, J.E. (1977) Geology of Vancouver Island. Geological Survey of Canada Open File 463.
- Nixon, G.T., Hammack, J.L., Hamilton, J.V. and Jennings (1993) Preliminary Geology of the Mahatta Creek Area, Northern Vancouver Island. Geological Fieldwork 1992 B.C.M.E.M.P.R. Paper 1993 - 1.
- Perello, J.A. et al (1995) Porphyry copper-gold-molybdenum deposits in the Island Copper Cluster, northern Vancouver Island, British Columbia; paper in Porphyry Deposits of the Northwestern Cordillera of North America, Canadian Institute of Mining, Metallurgy and Petroleum Special Volume 46.
- The Northern Miner (1992) "Minnova plans LeMare drilling"; October 5, 1992.
- Thompson, A.J.B. (1992) Report on mapping and x-ray diffraction work, LeMare property. Private report for Minnova Inc. July 22, 1992.

CERTIFICATE OF QUALIFICATIONS

I, David J. Pawliuk, do hereby certify that:

- 1.0 I am a consulting geologist operating Nanoose Geoservices with an office at 2960 Anchor Drive, Nanoose Bay, British Columbia, V9P 9G2.
- 2.0 I received a degree of B.Sc. in Geology from the University of Alberta, Edmonton, Canada in 1975.
- 3.0 I am a member, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 4.0 I am a member, in good standing, of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 5.0 I have practised my profession since 1975.
- 6.0 This report is based upon fieldwork by Fox Geological Services Inc.
- 7.0 I am the recorded owner of the LEM1 to LEM6 mineral claims. I located these claims February 6, 1997.



David J. Pawliuk, P. Geo.
April 30, 1998



STATEMENT OF COSTS

The following expenditures were incurred for exploration on the LEM1 to LEM6 mineral claims from May 15 to December 1, 1997.

Personnel	Dates worked	Rate	Sub-total	Total
R. Cameron	May 15, July 18	325.00	650.00	
T. Archibald	May 15	295.00	295.00	
S. Wetherup	July 18	295.00	295.00	
J. Forester	July 18	295.00	295.00	\$ 1,535.00
Helicopter	July 18, 1997 1.15 hrs. @ \$ 888.18/hr.			\$ 1,021.41
Geochemical analyses: 5 rocks @ \$ 23.00				\$ 115.00
Truck rental 2 days @ \$ 75.00				\$ 150.00
Food and accommodation 5 mandays @ \$ 75.00				\$ 375.00
Report				<u>\$ 250.00</u>
			TOTAL	\$ 3,446.41

APPENDIX 1

ANALYTICAL CERTIFICATE

GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

PROJECT 207 File # 97-2375
1409 - 409 Granville St., Vancouver BC V6T 1T2



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	Au+	
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppb	ppm	ppm	ppm	ppb	
63473	4.0	30.7	2.3	7.7	30	1	2	62	2.23	3.6	<5	<2	1	.03	.3	.3	1	.05	<.001	21	9	.02	4<.01	<3	.15	.08	.02	<2	<.2	265	<.3	<.2	.8	<1	LOM	
63474	7.7	9.3	4.5	2.3	453	3	11	12	3.78	2.5	5	<2	2	.01	<.2	4.3	3	.01	.008	3	6	.01	18<.01	4	.31	.01	.25	<2	<.2	193	2.1	1.8	1.8	6	LOM	
63475	2.5	11.8	2.8	8.2	61	1	5	34	3.75	4.7	7	<2	2	<.01	.3	.4	1	.16	.080	2	10	<.01	13<.01	5	.28	<.01	.15	2	<.2	606	.7	1.1	.9	1		
63476	5.3	6.5	.8	<1	<30	4	1	49	.47	.9	<5	<2	2	<.01	<.2	.1	1	.02	.043	6	27	<.01	14<.01	3	.15	<.01	.09	3	<.2	<10	<.3	.2	<.5	<1		
63477	8.0	16.9	7.2	3.5	245	3	6	68	1.62	11.6	6	<2	2	.04	.4	1.9	2	.33	.068	3	24	.02	41<.01	<3	.19	.01	.14	4	<.2	19	.5	.2	.9	<1		
63478	6.2	11.7	6.5	1.6	176	3	7	47	3.52	6.0	<5	<2	2	.02	.3	1.3	4	.13	.109	10	13	.03	29<.01	4	.48	.01	.31	2	<.2	31	1.0	.3	1.9	1		
63479	1.8	13.2	7.2	5.4	150	2	<1	39	.24	2.4	<5	<2	3	.06	.9	.9	3	<.01	.003	1	14	<.01	9<.01	<3	.06	<.01	.01	2	<.2	304	.5	<.2	.8	3		
63480	6.0	27.9	12.5	1.1	105	7	8	19	4.82	20.8	<5	<2	7	.06	.4	.1	5	<.01	.003	1	11	<.01	9<.01	<3	.65	<.01	.01	<2	.5	59	.7	<.2	1.7	<1		
RE 63480	5.9	27.7	11.9	1.4	102	7	8	20	4.91	19.9	<5	<2	7	.05	.4	.3	4	<.01	.003	1	10	<.01	7<.01	<3	.67	<.01	.01	<2	.5	45	.6	<.2	1.8	<1		
63481	3.8	21.7	5.4	1.1	<30	4	4	12	1.96	7.1	<5	<2	3	.02	<.2	.1	6	<.01	.002	1	8	<.01	8<.01	<3	.56	<.01	<.01	<2	<.2	45	.3	<.2	1.6	2		
63482	6.7	19.5	5.6	<1	230	1	<1	13	.51	70.3	<5	<2	23	<.01	3.2	.3	4	<.01	.006	2	4	<.01	31<.01	<3	.81	<.01	<.01	<2	.2	105	17.8	1.8	4.2	4		
STANDARD	24.9	128.0	103.5	255.9	2119	31	17	1037	4.42	74.1	25	19	57	2.07	8.2	23.5	74	.71	.115	16	57	1.24	210	.14	25	2.29	.04	.70	11	2.7	438	.5	2.9	8.1	551	

Standard is STANDARD D2/HG-500/AU-R.

ICP - 15 GRAM SAMPLE IS DIGESTED WITH 90 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQWAT 336 AND ANALYSED BY ICP. ELEVATED DETECTION LIMITS FOR SAMPLES CONTAIN CU,PB,ZN,AS>1500 PPM,Fe>20%.
- SAMPLE TYPE: ROCK AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: MAY 23 1997

DATE REPORT MAILED:

June 2/97

SIGNED BY: *[Signature]* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

VANCOUVER
ISLAND

LEGEND

□ 63477 Rock sample site, number

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

AA **AA**

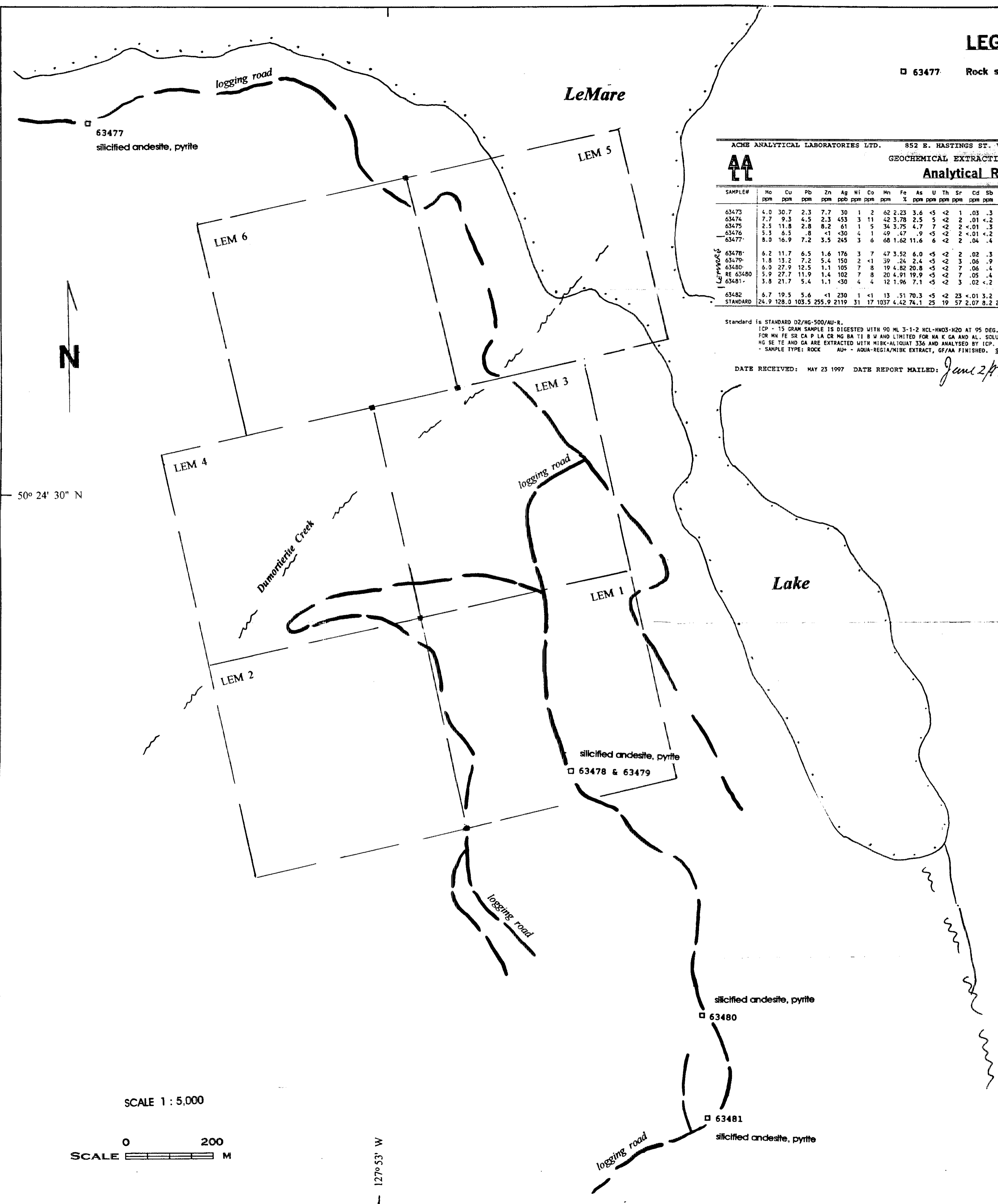
GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Analytical Results

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	Au*
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
63473	4.0	30.7	2.3	7.7	30	1	2	62	2.23	3.6	<5	<2	1	.03	.3	.3	1.05	<.001	21	9	.02	4	<.01	<.3	.15	.08	.02	<2	<2	265	<.3	<.2	.8	<1	
63474	7.7	9.3	4.5	2.3	453	3	11	42	3.78	2.5	5	<2	2	<.01	<.2	4.3	3	.01	.008	3	6	.01	18	<.01	4	.31	.01	.25	<2	<2	193	2.1	1.8	1.8	6
63475	2.5	11.8	2.8	8.2	61	1	5	34	3.75	4.7	7	<2	2	<.01	.3	.4	1.16	.080	2	10	<.01	13	<.01	5	.28	.01	.15	2	<2	606	7	1.1	.9	1	
63476	5.3	6.5	8	<1	<30	4	1	49	4.7	.9	5	<2	2	<.01	<.2	.1	1.02	.043	6	27	<.01	14	<.01	3	.15	.01	.09	3	<2	<10	<.3	2	<.5	<1	
63477	8.0	16.9	7.2	3.5	245	3	6	68	1.62	11.6	6	<2	2	.04	.4	1.9	2.33	.068	3	24	.02	41	<.01	<.3	.19	.01	.14	4	<2	19	.5	2	.9	<1	
63478*	6.2	11.7	6.5	1.6	176	3	7	47	3.52	6.0	<5	<2	2	.02	.3	1.3	4	.13	.109	10	13	.03	29	<.01	4	.48	.01	.31	2	<2	31	1.0	3	1.9	1
63479*	1.8	13.2	7.2	5.4	150	2	<1	39	24	2.4	<5	<2	3	.06	.9	.9	3	.01	.003	1	14	<.01	9	<.01	<.3	.06	.01	.01	2	<2	304	.5	<2	.8	3
63480	6.0	27.9	12.5	1.1	105	7	8	19	4.82	20.8	<5	<2	7	.06	.4	.1	3	.01	.003	1	11	<.01	9	<.01	<.3	.65	.01	.01	<2	5	59	7	<2	1.7	<1
RE 63480	5.9	27.7	11.9	1.4	102	7	8	20	4.91	19.9	<5	<2	7	.05	.4	.3	4	.01	.003	1	10	<.01	7	<.01	<.3	.67	.01	.01	<2	5	45	4	<2	1.8	<1
63481*	3.8	21.7	5.4	1.1	<30	4	4	12	1.96	7.1	<5	<2	3	.02	<.2	.1	6	.01	.002	1	8	<.01	8	<.01	<.3	.56	.01	<.01	<2	2	45	3	<2	1.6	2
63482	6.7	19.5	5.6	<1	230	1	<1	13	51	70.3	<5	<2	23	<.01	3.2	.3	4	.01	.006	2	4	<.01	31	<.01	<.3	.81	.01	<.01	<2	2	105	17.8	1.8	4.2	4
STANDARD	24.9	128.0	103.5	255.9	2119	31	17	1037	4.42	74.1	25	19	57	2.07	8.2	23.5	74	.71	.115	16	57	1.24	210	.14	25	2.29	.04	.70	11	2.7	438	5	2.9	8.1	551

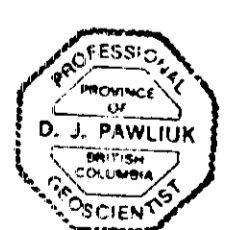
Standard is STANDARD D2/HG-500/AU-R.
 ICP - 15 GRAM SAMPLE IS DIGESTED WITH 90 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. NO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQUOT 336 AND ANALYSED BY ICP. ELEVATED DETECTION LIMITS FOR SAMPLES CONTAIN CU, PB, ZN, AS > 1500 PPM, Fe > 20%.
 * SAMPLE TYPE: ROCK AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. Samples beginning 'RE' are Returns and 'BRE' are Reject Returns.

DATE RECEIVED: MAY 23 1997 DATE REPORT MAILED: June 2/97 SIGNED BY: D. TOYE, C. LEONG, J. WANG, CERTIFIED B.C. ASSAYERS



GEOLOGICAL SURVEY BRANCH
 ASSESSMENT REPORT

25,501



LEM1 to LEM6 MINERAL CLAIMS
 Northern Vancouver Island

**SAMPLING
 PROSPECTING**

Date: April 1998 Figure 5

SCALE 1 : 5,000

0 200
 SCALE M

127° 53' W

50° 24' 30" N