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FILE NO: 87-625-16443	

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GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE
DISCOVERY I AND DISCOVERY II CLAIM GROUPS

Callaghan Creek Area
Vancouver Mining Division

Latitude 50 Degrees 6 minutes North
Longitude 123 Degrees 6 minutes West 18"
NTS 92J/3E

BY

Owner/Operator: Les Demczuk, M.Sc. F.G.A.C.
Geologist

October, 1987

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,443

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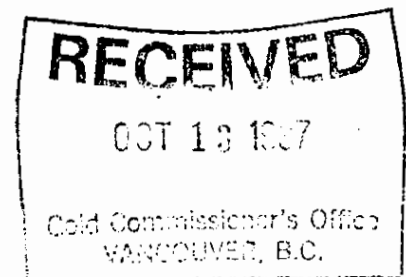
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1.0 SUMMARY

The Discovery claim groups consisting of 26 units are located on Callaghan Creek, approximately 10 kms south-west from Whistler with a good access by logging road from the main Vancouver-Pemberton Highway #99.

The subject property is a part of the Coast Plutonic Complex and is underlain by quartz-diorite intrusions and package of intermediate volcanic rock metamorphosed to greenschist facias. Two mining operations are located within the area, Northair Mines Ltd. has its mine site on the East side of Callaghan Creek only 3 km north from the Discovery I claim. Van Silver Explorations Ltd. has a mill 1 km north of Highway #99 on the east side of Brandywine Creek 3 km southwest from the Discovery II claim.

The brief program conducted on Discovery I and Discovery II claims in 1986 and 1987 has defined economic copper (5%), zinc (5%), silver (2.1 oz/t) and highly anomalous gold (0.03 oz/t) and lead (0.2%) mineralization. The subject property lies in similar to Northair geological environment favourable for precious and base metal mineralization and has an excellent potential for hydrothermal and remobilized type deposit.

Further testing of the geochemical anomalies on Discovery claims and a program including detailed mapping, soil geochemistry, VLF, magnometer surveys and IP on selected targets is recommended on the entire property.

2.0 INTRODUCTION

The Discovery I and Discovery II claim groups consist of 26 units and are owned by Les Demczuk, Ste. 210 - 1860 Nelson Street, Vancouver, B.C. V6G 1N1.

Exploration was conducted on the claims in 1986 on October 28th, November 15th and 16th and in 1987 on May 5th and July 20th-21st by Les Demczuk, M.Sc. and Jim Cuttle, B.Sc. geologist familiar with this area and consisted of reconnaissance prospecting, mapping and rock sampling (29) (analyzed for 32 elements).

The work and results described within this report are intended to fulfill the assessment requirements for the Discovery I and Discovery II claim groups.

2.1 Location and Access

The Discovery I and Discovery II claim groups are located in the Vancouver Mining Division approximately 10 km southwest of the ski-resort of Whistler, and 100 km north of Vancouver, B.C.

Access to the property is by a good secondary gravel logging road, off the main Vancouver-Pemberton Highway #99, which trends northward up Callaghan Creek and intersects the Discovery claims. Logging operations throughout the property have left a network of new roads which are driveable with the use of a four-wheel drive truck.

2.2 Claim Status

The property consists of Discovery I claim group, record no. 2011, totaling 14 units staked on October 26th, 1986 and Discovery II claim group record no. 2106 including 12 units, staked on April 5th 1987. Both claim groups are registered in the name of Les Demczuk.

3.0 GEOLOGY

3.1 Regional Geology and Surrounding Properties

The Discovery I claim group is a part of the Alta Lake - Callaghan Creek area of the Coast Plutonic Complex. Strata of the Alta Lake Pendant from a northwest trending belt of metamorphic rocks bounded by quartz-diorite and diorite. The pendant rocks are dominately intermediate volcanics, volcanic breccias, tuffs and sandstone with minor amounts of argillite and limestone. The rocks are of Cretaceous age and have been metamorphosed to greenschist facias characterized by actinolite epidote, zoisite, chlorite, biotite and albite. The cleavage strikes north-northwest and dips steeply. Unit contacts are generally sharp and commonly associated with narrow shear zones subparallel to foliation.

All ore bodies presently known in the area are restricted to particular units. Most are associated with volcanogenic rocks with later development of mineralized veins as a result of metamorphism and hydrothermal activity. Replacement deposits are restricted to a marble unit within mafic volcanics. The lower unit in the volcanic package hosts the Brandywine Camp (Silver Tunnel, Millsite, Tedi-Pit, Zone 4). Host rocks are andesitic in composition with minor interbedded marbles, cherts and intrusive: hornblende, diorite. The upper unit of this pendant hosts the Northair Mine (Warman, Manifold, Discovery Zones) and is dominated by andesitic agglomerate, crystal tuff and minor interbedded wackes, mudstones, and volcanic breccia.

The Northair Property (Warman, Discovery, Manifold)

The Northair gold mine lies 3 km to the north of the Discovery I claim group and approximately 6 km north of the Callaghan Creek Basalts. The mine is hosted by Cretaceous rocks of the Alta Lake Pendant Strata with the greatest mineralization occurring in the steeply dipping quartz-carbonate veins. Galena, sphalerite, chalcopryrite, pyrite, gold and argentite exist in these vein zones. Core samples containing large, irregular crystals of sphalerite, galena, and chalcopryrite indicate that the ore deposit might be of hydrothermal origin. The Discovery I claim group is located approximately 3 km down the strike from the Northair auriferous veins in similar rock type and structure.

The Northair Mine was in production from 1976 to 1982 at a mill rate of 300 tpd. Current indicated ore reserves are:

65,000 tons	0.265 oz/t	Au
	0.78 oz/t	Ag
	2.0%	Pb-Zn combined

The Brandywine Camp
(Silver Tunnel, Millsite, Tedi-Pit, Zone 4)

Located 3 km south southwest of the Discovery I claims, these old showings have extensive exploration history for volcanogenic massive sulphide (Cu, Pb, Zn) and highgrade gold silver base metal quartz veins. Presently Silver Tusk Mines of Vancouver owns 100% interest in the properties. These ore bodies are confined to lense like satellite pendant of the main Callaghan roof pendant. They include andesitic volcanics, mafic greenstone, marbles and intrusive hornblende diorite.

Silver Tunnel (Blue Jack Group)				
Open Cut 1	0.24 oz/t Au	1.8 oz/t Ag		
Open Cut 2	0.20 oz/t Au	2.4 oz/t Ag		
Open Cut 3	0.36 oz/t Au	2.6 oz/t Ag	2.5% Pb	

Tedi-Pit (Astra and Cambria) 1934					
Au oz/t	Ag oz/t	%Pb	%Zn	%Cu	Width
0.4	2.0	2.6	4.0	tr	15' chip
tr	1.5	1.0	3.0	--	30" chip

Work has continued sporadically on these properties.

The Discon Property

Found bordering the eastern boundary of the Discovery I claim, the owners, Crack Resources, have indicated they have made a new Au, Ag, Cu, Pb, Zn discovery. This mineralized shear zone found in sediment trends north northwest and possibly intersects the northeast corner of the Discovery I property. The only published result is as follows

1.0 oz/t Ag 1% Cu 0.04 oz/t Au

No other information is presently available.

3.2 Property Geology and Mineralization

The Discovery I claims are predominantly underlain by quartz diorite (and varieties) of the Coast Plutonic Complex. This area includes small linear shaped mafic volcanic satellite roof pendants similar to the Brandywine Camp (3 kilometers to the southwest).

The northern quarter of the claim includes known lower Cretaceous andesitic agglomerate and intermediate volcanic crystal tuff of the Callaghan Creek roof pendant. These rocks are located along strike and host the Northair deposit. The south southwest striking fault zones associated with the Northair ore deposit have been located on the property.

The Discovery II claims are underlain by weakly metamorphosed to greenstone/schist facies andesitic unit with the mudstone sequences. In the central part of the property this unit is in sharp contact with upper Jurassic quartz-diorite intrusions of Coast Plutonic Complex. Rocks on the Discovery II property have been cut by narrow and wide southerwesterly trending shears and fault zones and are well mineralized.

Mineral occurrence on the Discovery II claims are associated with well-sheared greenstone and a rhyodacite dykes. Sulphide minerals occur primarily in crosscutting veinlets, disseminations and as massive sulphides that are locally layered parallel to the regional foliation. Sphalerite, galena veins and stringers with less abundant chalkopyrite and hematite-bearing veins occur within the greenstone. Stockwork copper mineralization is present in the Discovery I claims block within a pod of hornblende diorite. Sulphides on this property are disseminated in quartz-carbonate gangue, from thin sulphide-rich sheets within layered quartz-carbonate beds. Sometimes locally occur as massive sulphides, and are contained in abundant small quartz-carbonate veins. The minerals at Discovery I are pyrite, sphalerite, galena, chalkopyrite, malachite, tetrahedrite.

The anomalous metal values and rock types are as follows:

86-DJC-001	13.2 ppm Ag (0.38 ox/t)	rusty quartz vein near intrusive contact.
86-DJC-002	74.8 ppm Ag (2.1 oz/t) 1150 ppb Au (0.03 oz/t) 5% Cu	quartz vein in intrusive outcrop near volcanic contact
86-DLD-006	7.0 ppm Ag (0.2 oz/t) 7684 ppm Cu (0.7%) 42 ppb Au	intermediate to felsic brecciated lapilli tuff near intrusive contact
87-DL-03	4.3 ppm Ag 265 ppb Au 1816 ppm Cu 806 ppm Pb 21896 ppm Zn (2%)	1 m wide shear zone in in andesitic composition greenstone
87-DL-04	8.3 ppm Ag 895 ppb Au 6956 ppm Cu (0.7%) 1951 ppm Pb (0.2%) 54219 ppm Zn (5%)	Shear zone in andesitic composition greenstone
87-DL-23	3.5 ppm Ag 4679 ppm Cu (0.5%)	Granodiorite with pyrite chalkopyrite and malachite
86-DJC-003	2.6 ppm Ag 676 ppm Cu	Grandiorite with pyrite

86-DLD-001	2.3 ppm Ag	Felsic volcanic with pyrite
86-DLD-002	421 ppm Cu	Andesite
86-DLD-003		Andesite
86-DLD-004		Granodiorite
86-DLD-005	52 ppb Au	Granodiorite
87-DL-05		Shear zone in schist
87-DL-10	105 ppb Au	Granodiorite
87-DL-12	55 ppb Au	Shear zone in greenstone
87-DL-20		Granodiorite
87-DL-21		Granodiorite
87-DL-22	305 ppm Cu	Shear zone
87-DL-24		Granodiorite
87-DL-25		Granodiorite
87-DL-26		Granodiorite
87-DL-27		Andesite
87-DL-28		Greenstone
87-DL-29		Greenstone
87-DL-30		Schist
87-DL-31		Schist
87-DL-32	311 ppm Cu	Shear zone in andesitic Composition greenstone

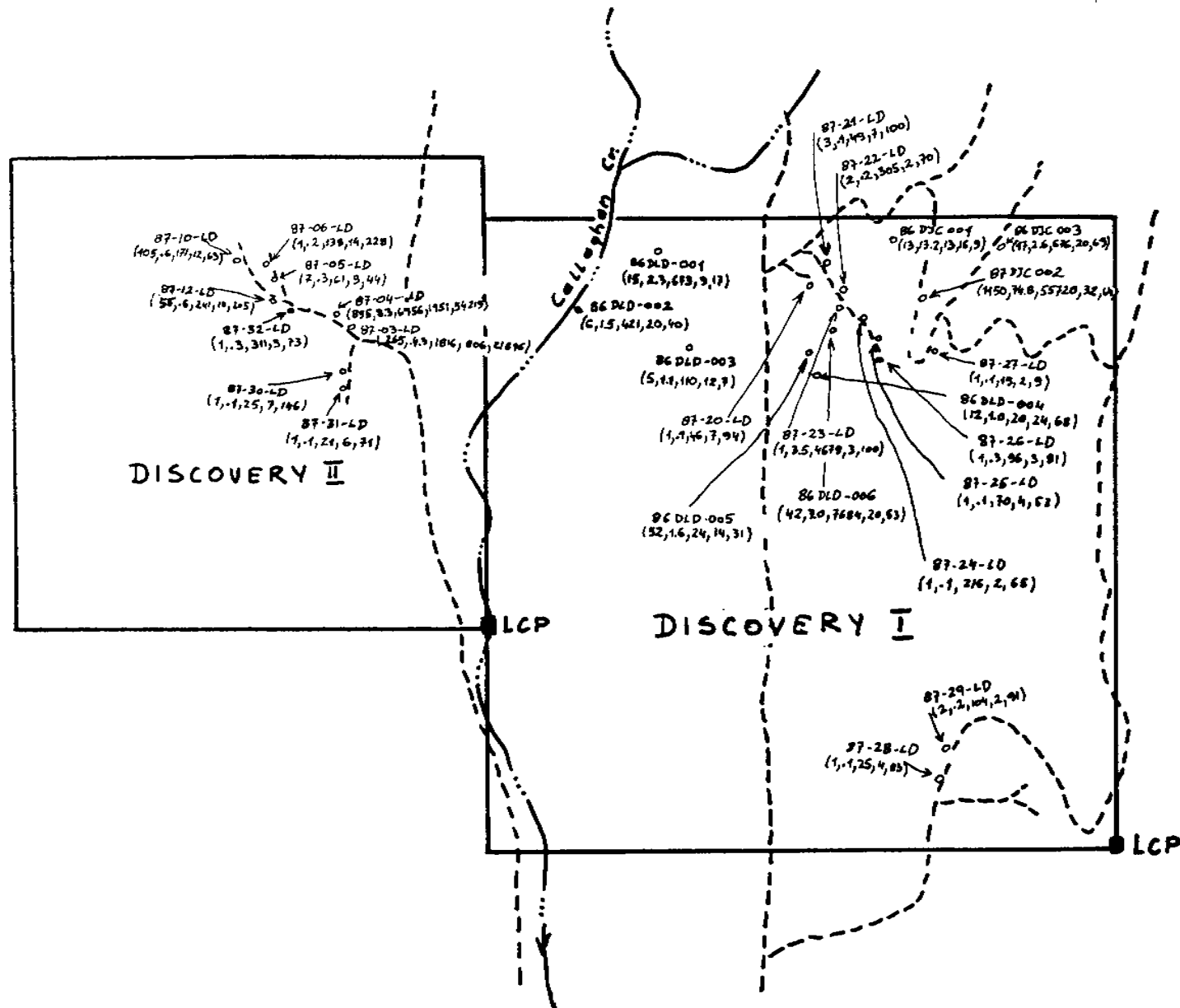


FIGURE 4



0 200 400 600 800 1000 m

○ 87-06-LD Rock Sample Location

○ 87-06-LD Assay Results ppb ppm ppm ppm ppm
 (1, 2, 138, 14, 228) { Au, Ag, Cu, Pb, Zn }

4.0 CONCLUSIONS AND RECOMMENDATIONS

The Discovery claims group is a part of the southern Coast Plutonic Complex which hosts number of base and precious metal deposits.

The subject property is surrounded by well known base and precious metals deposits and lies only 3 km south of Northair mine in similar rock type and structure favourable for precious and base metal mineralization.

The rock geochemistry has defined economic values of copper (up to 5%), zinc (up to 5%), silver (2.1 oz/t) and highly anomalous gold (0.03 oz/t) and lead (0.2%) mineralization.

The Discovery property has an excellent potential for hydrothermal and remobilized type deposit with economic gold mineralization and warrant further investigation.

The exploration targets include:

- 1) Southerly continuation of the Northair ore body into the the northern quarter of the Discovery I claim.
- 2) Satellite mafic volcanic pendants within the quartz diorte, similar to the Brandywine Camp
- 3) Ore bodies within the lower mafic volcanic series that have been covered by Tertiary and Pleistocene volcanics.
- 4) Fault and shear zones within greenstones in Discovery II claims.

Recommended Field Work

Detailed geological mapping is needed to cover the entire property. A rock and soil geochemical program is recommended on prospective areas isolated by the mapping and prospecting.

A second phase would be contingent on result and should include VLF to isolate possible fault structure, magnetic to confirm intrusive volcanic contacts and buried volcanic pendants and IP to isolate disseminated and semi massive ores.

Respectfully submitted,

L. Demczuk, M.Sc. F.G.A.C.

5.0

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APPENDIX I

GEOCHEMISTRY LAB RESULTS

GEOCHEMICAL ICP ANALYSIS

.300 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 MG BA TI B W AND LIMITED FOR NA & K. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: Rock Chips AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: MAY 19 1987 DATE REPORT MAILED: *May 22/87* ASSAYER: *D. Jey* DEAN TOYE, CERTIFIED B.C. ASSAYER

LES DEMCZUK File # 87-1316

SAMPLE#	MO	CU	PB	ZN	AS	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU1
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
87-DL-04	6	6956	1951	54219	8.3	13	27	614	3.52	2	5	ND	1	9	440	5	6	15	.44	.019	2	9	.63	63	.05	2	.80	.01	.14	95	895
87-DL-06	1	138	14	220	.2	16	19	869	3.61	5	5	ND	5	41	1	2	2	45	1.58	.085	4	9	1.93	27	.13	2	1.94	.04	.06	1	1
87-DL-10	11	171	12	63	.6	3	11	2374	3.76	6	5	ND	3	109	1	2	4	16	19.25	.016	2	1	.91	27	.02	2	.96	.04	.05	1	105

Zn saturated at 20,000 ppm

PROJECT NO:

715 WEST 15TH ST., NORTH WANDSWER, I.O. VAN 172

FILE NO: 6-12-67/P1

ATTENTION: J. CUTTLE/L. DEMCZUK

16041980-8214 OR 16041988-4524

* TYPE ROCK SAMPLES *

DATE: DEC 1, 1986

(VALUES IN PPM)	AS	AS	CU	NI	PE	ZN	AD-PPB
84810-001	13.2	1	17	3	14	9	13
84810-002	74.8	42	55720	4	32	44	1150
84810-003	2.4	25	674	16	20	49	17
84810-001	2.3	1	478	3	8	17	18
84810-000	1.5	1	401	1	20	40	6
84810-002	1.1	1	110	3	12	7	5
84810-004	1.0	14	21	13	24	48	12
84810-005	1.4	1	24	7	14	31	52
84810-004	7.0	1	7684	13	21	53	42

ACME ANALYTICAL LABORATORIES

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

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: SOILS/ROCKS AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JULY 22 1987 DATE REPORT MAILED: *July 27/87* ASSAYER: *D. Toyne* DEAN TOYE, CERTIFIED B.C. ASSAYER

LES DEMCZUK File # 87-2629

SAMPLE#	NO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AUR
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	%	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	%	%	PPH	PPH	%	PPH	%	PPH	%	%	PPH	PPH	
87-05-LDS	1	61	9	44	.3	26	11	296	3.94	7	5	ND	4	18	1	4	2	53	.21	.076	5	30	.78	17	.14	2	3.24	.02	.04	1	7
87-20-LD	1	46	7	94	.1	18	21	928	4.41	4	5	ND	1	79	1	2	2	69	.97	.107	2	14	2.39	53	.20	2	2.39	.02	.14	1	1
87-21-LD	1	49	7	100	.1	7	10	845	2.89	3	5	ND	4	7	1	2	2	14	.15	.066	8	8	.60	64	.01	2	.99	.03	.11	1	3
87-22-LD	1	305	2	70	.2	5	11	636	3.09	6	5	ND	3	14	1	2	2	16	.35	.064	7	6	1.01	58	.04	2	1.37	.03	.12	1	2
87-23-LD	1	4679	3	100	3.5	9	11	541	2.80	4	5	ND	1	39	1	3	2	20	.45	.069	4	10	1.14	34	.10	2	1.28	.03	.07	1	1
87-24-LD	5	216	2	65	.1	5	10	1694	2.38	6	5	ND	2	8	1	2	2	26	.18	.036	6	1	.91	45	.01	3	1.19	.01	.06	1	1
87-25-LD	1	70	4	53	.1	5	7	474	1.58	3	5	ND	3	22	1	2	2	11	.34	.064	5	5	.72	81	.01	2	.87	.02	.17	1	1
87-26-LD	1	96	3	81	.3	3	7	1073	2.06	2	5	ND	3	90	1	2	2	22	1.01	.057	5	5	.95	56	.02	2	1.20	.01	.11	1	1
87-27-LD	1	15	2	9	.1	1	2	113	.59	4	5	ND	7	15	1	2	2	5	.15	.018	3	3	.18	26	.03	2	.31	.03	.08	2	1
87-28-LD	1	25	4	83	.1	11	10	893	2.98	4	5	ND	2	52	1	2	2	20	1.59	.054	7	4	1.46	51	.01	2	1.36	.01	.10	1	1
87-29-LD	1	104	2	91	.2	7	17	834	3.15	2	5	ND	2	35	1	2	2	46	.58	.063	3	18	1.91	57	.10	2	1.60	.02	.09	1	2
87-30-LD	1	25	7	146	.1	10	13	715	2.97	2	7	ND	1	22	1	2	2	25	.34	.074	3	14	1.61	34	.07	2	1.53	.02	.06	1	1
87-31-LD	1	21	6	71	.1	41	22	715	4.01	6	8	ND	1	23	1	2	2	48	1.12	.048	2	46	3.41	24	.10	2	2.98	.01	.05	1	1
87-32-LD	1	311	3	73	.3	10	12	820	3.68	6	5	ND	1	25	1	2	2	16	2.79	.053	2	6	1.05	33	.06	2	1.14	.01	.08	1	1
87-DL-03	8	1816	806	21896	4.3	18	25	1083	4.79	11	5	ND	1	18	183	2	2	21	.70	.028	2	17	1.14	55	.10	2	1.23	.01	.11	1	265
87-DL-05	1	10	3	100	.3	7	9	571	2.01	6	5	ND	1	40	1	2	2	10	.89	.077	3	6	1.12	47	.05	2	1.15	.01	.08	1	1
87-DL-12	1	241	10	205	.6	11	9	1801	2.55	10	5	ND	1	75	1	2	2	10	7.76	.074	3	5	1.26	24	.05	2	1.36	.12	.11	1	55
STD C/AU-R	19	61	39	132	7.3	71	29	953	3.88	40	18	8	39	51	19	17	22	59	.48	.092	39	59	.87	180	.08	34	1.69	.06	.14	12	495

APPENDIX II

STATEMENT OF COSTS

STATEMENT OF EXPENSES

Discovery I and Discovery II Claim Groups

Personnel

L. Demczuk, M.Sc. Geologist	6 days @ \$300	\$ 1,800.00
J. Cuttle, B.Sc. Geoloist	2 days @ \$250	500.00

Truck Rental

6 days @ \$50 per day	300.00
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Travel

Meals, gas, etc.	404.27
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Lab Analyis

Min-En Laboratories Ltd.	502.05
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Field Supplies

Maps, etc.	100.00
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Rock Saw Cuts

44.00

Reports

Writing, Typing, etc.	<u>370.00</u>
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TOTAL	<u>\$ 4,021.11</u>
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APPENDIX III

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

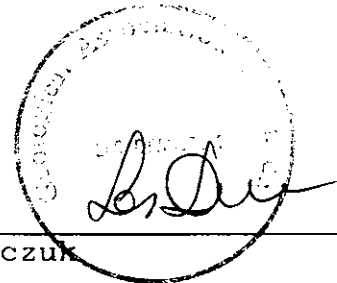
I, LES DEMCZUK, of the City of Vancouver, Province of British Columbia do hereby certify that:

1) I am a Mining Geologist Engineer residing at 210 - 1860 Nelson Street, Vancouver, B.C.

2) I graduated from University of Mining and Metallurgy, Krakow, Poland in 1977 with a Master of Science degree in Geology.

3) I have worked in mineral and coal exploration since 1977 and have practiced my profession since 1977.

4) I am a registered Fellow of the Geological Association of Canada.



Les Demczuk