1.0 INTRODUCTION

This report was prepared at the request of Applied Mine Technologies Inc. and consists of a compilation of geological, diamond drilling, metallurgical, bulk sampling & pilot mill operation, geochemical and geophysical fieldwork carried out between 1981-96 within the Valentine and West Leech claim groups. The report is a partial fulfillment of a schedule of work commitments by AMT Inc. , who have engaged in an option agreement with Beau Pre Explorations Ltd. Previous work on these 2 claim groups has totaled over $4,000,000 in expenditures. The purpose of this report is to summarize and correlate this database in order to evaluate the economic mineral potential of the Valentine Gold Project.

2.0 LOCATION, ACCESS & PHYSIOGRAPHY

The property is located 42 km. WNW of Victoria, and 19 km. N of Sooke on SW Vancouver Island (Fig.1 & 2). A network of logging roads (most of which require 4WD) access about 50% of the claims. The main logging road access has weekday travel restrictions during the period 07:00 to 17:00 hours. Other access problems include heavy rain washouts, fire closures and snow at higher elevations. Relatively mild coastal climate allows year round fieldwork to be carried out.

The property is part of the Insular Mountains which formed as a result of crustal thickening and subsequent mature dissection of a Tertiary erosion surface of relatively low relief, now expressed as fault controlled valleys and fault-line scarps forming monadnock-like plateaus (Grove,E.W.,1990). Quaternary ice advances from the north and west has deposited a 1-5 meter depth of till throughout the region.

3.0 PROPERTY STATUS

A revised list of current individual claims which comprise the Valentine and West Leech claim groups is listed in Appendix A. Fig. 2 shows claim location, Fig. 2A shows location of recently staked GS 1,2,3,4.

4.0 AREA HISTORY

Placer gold was discovered in the 1860's in sand and gravel alluvium along the San Juan, Leech, Jordan, Sombrio and Loss Creek drainage basins. Leech River was hydraulic mined intermittently until 1941. Nuggets up to 1 ounce and a total production of 10,000-20,000 ounces were sluiced from gravel/bedrock contacts along riverside bars.

Base and precious metal lode deposits in Southern Vancouver Island consist of massive sulphides, skarns, quartz veins and shears. Cu-Pb-Zn-Ag-Au massive sulphides occur near Mt. Sicker. Past producers in tis area include Lenora, Tyee, Richard III, and Lara (which has published reserves of 529,000 tonnes grading 1.11% Cu, 1.22% Pb, 5.87% Zn, 4.73 g/t Au and 100.1 g/t Ag). Magnetite-chalcopyrite skarns in the Cowichan Lake area have produced in excess of 15 million pounds of copper and 75,000 ounces of silver. Shear zone copper deposits occur near the mouth of the Jordan R. where then Sunloch-Gabbro property is located. Past production includes several million pounds of Cu as well as minor silver and gold. The adjacent prospect known as the Sunro shear contains probable reserves of 1.47 million tonnes @ 1.43% Cu.

4.0 VALENTINE MOUNTAIN PROPERTY HISTORY

4.1 1966

While logging the east slope of Valentine Mountain, Fred Zorelli detected native gold in quartz float.

4.2 **1976**

Detailed prospecting by Robert Beaupre and Alex Low led to the discovery of native gold in the "A" vein located on the eastern end of the area presently known as "Discovery Zone". Subsequent staking of Valentine Mountain and surrounding areas was carried out over several years.

4.3 **1979**

L.H. Fairchild completed a structural and metamorphic analysis of the Leech River Group in partial fulfillment of the requirements for a Masters degree at the University of Washington. Most of his work focused on the Valentine Mountain area. A point form summary of his study is listed below:

1) Leech River Group consist of greenschist to amphibolite facies gneiss and schist metamorphic rocks Their protolith rock types listed in order of abundance are: a-pelite (shale), b-sandstone, c-volcanic, d-chert, e-conglomerate.
2) Two Eocene deformational events, separated by a static period of unknown duration, consisted of fragmentation, rotation and regional shortening resulted in axial-plane cleavage, linear structures and coaxial mesoscopic parasitic folds about east-plunging fold axes.
3) Amphibolite facies metamorphism resulted in biotite-garnet and staurolite-andalusite successively introduced by continuous reaction, which extended from the end of the first phase of deformation into the second phase (Appendix D).
4) Greenschist facies metamorphism results in muscovite-chlorite-quartz assemblages (Appendix D).
5) San Juan, Clapp Ck. And Leech R. faults are E-W trending, steeply dipping, relatively straight zones of regional sub-parallel fault traces. The Leech R. fault is interpreted to be a left-lateral strike-slip fault zone active during the Eocene-Oligocene-Miocene.
6) In the Jordan R. valley southwest of Valentine Mountain, 10-50 m. wide coarse-grained biotite orthogneiss to grandioritic sills and related pegmatite dykes are concordant with regional schistosity.
7) In both mesoscopic and macroscopic folds throughout the Leech R. Group, metasandstone and metavolcanic units behave competently and pelitic rocks, which typically filled-in between competent bodies, behaved in a more ductile fashion. This competency contrast indicates that buckling, rather than homogenous flattening or slip-folding, was the dominant mechanism of folding.
8) Isoclinal F1 structures are refolded by F2 resulting in cylindrical folds which are generally asymmetric-open in the north study area, and progressively symmetric-closed to the south.
9) Dominant foliation in the study area is steeply dipping, F2 axial planar.

4.4 **1980**

Property examinations and reports by T.E. Lisle, P.Eng. and G.A. Noel, P.Eng. were completed on behalf of Beau Pre Explorations Ltd. Lisle took 42 soil samples in the vicinity of the "Discovery Zone" which returned 5-40 ppb Au. Channel samples from the "A" trench returned values ranging from .003 to .014 opt Au across widths of .23 to 1.83 m. Three select vein samples assayed .572, .005 and .075 opt Au. Their reports recommended detailed geochemistry and geological mapping.

Rio Canex geologists examined the property and took several rock chip samples which assayed less than .1 g/t Au .

Low Minerals processed a 775 pound (351.5 kg.) sample in Tacoma, Washington taken from the "A" trench which returned a grade of .270 opt Au and .210 opt Ag.

4.5 **1981**

A program of geological mapping, geochemistry (96 rock chips, 378 stream sediment samples) was performed by Beau Pre Explorations Ltd., under the supervision of Dr. E.W.Grove, P.Eng. Calculated background and threshold values for stream sediment sample values are listed as follows:

ELEMENT	RANGE	BACKGROUND	THRESHOLD
Au	5-85 ppb	5 ppb	40 ppb
As	2-350 ppm	6 ppm	50 ppm
Cu	3-191 ppm	36 ppm	100 ppm
Zn	7-168 ppm	57 ppm	100 ppm
Ni	3-191 ppm	26 ppm	79 ppm

The highest value (85 ppb Au) was obtained from a south flowing tributary of Valentine Creek located near the boundary of claims Blaze 3 & 4. Second ranking sample (60 ppb Au) came from the northeast edge of the "Discovery Zone", and there are numerous above average Au values in this area. The third highest value (55 ppb Au) is located on the Walker-Jordan Main (logging road) about 300 m. east of Fred Creek. Clusters of above average Au values are located: a) "BN" & "Braiteach" drainages, b) Walker Ck., c) Walker-Jordan Main bridge across Jordan R. (near massive orthogneiss intrusive sill) d) Tripp Ck.

The "BN", "Braiteach", and Valentine Ck. tributary areas exhibit relatively stronger Au-As geochemical association. Overall, the statistical presentation of anomalous values shows Au-As correlation, and no apparent correlation between Cu-Pb-Zn-Ni-Co-Ag-W-Mo.

Out of 96 total rock chip samples taken from the "Discovery" and "Fred Creek" areas, the highest values range up to 0.840 to 1.440 opt Au respectively. These two high grade samples taken from the "Discovery Zone" contained visible native gold in quartz.

4.6 **1982-83**

Property work directed by Robert Beau Pre, Tony Bruce and Malcolm Hurd consisted of trenching a strike length of 350 ft. (107 m.) on the "36" vein and 140 ft. (43 m.) along sub-parallel veins within the "Discovery Zone". A total of 9 diamond drill holes were collared 5-50 m. from the "36" trench and 3 holes were located 30-100 m. from the "A" trench. The significant results of this mapping, trenching & drill program are listed below (for a list of significant core drilling results see Appendix B)

1) Gold bearing quartz is hosted in mixed schist/gneiss (i.e. metapelites/metasandstones). Amphibolite units are key stratigraphic horizons and outline major structures, and host gold bearing quartz in the area of the "Discovery Zone". A weakly altered, E-W trending, steeply dipping, laterally continuous, 50-200 m. thick amphibolite unit is in close proximity (about 5-50 m.) to the main series of gold-quartz veins. A total of 3 gold-quartz veins were defined by drill intercepts as follows:

"C" vein zone: Located parallel and 10-15 m. south of the "36" (aka "B" vein), the "C" vein consists of white to grey quartz, trace amounts of pyrrhotite, marcasite and native gold hosted in mixed gneiss and schist. DDH 82-6 intersected the "C" vein at 36.0-36.5 m. depth and returned 7.550 opt Au across 0.5 m. Several other holes drilled nearby (i.e. 82-3,7,7A,5,5A,6A) intersected the "C" vein with assay values up to 0.174 opt Au across 0.3 m.

"D" vein zone: Parallel and 50 m. north of the "C" vein is the "D" vein, which is localized along a fault zone along an amphibolite/gneiss contact. This vein was intersected by DDH 82-6A, 6, 5, & 21 with values up to 0.063 opt Au across 1.3 m., which was recorded in the drill hole furthest west, and appears that the vein improves westward along strike.

"A" vein zone: The depth continuity of the "A" vein was tested by DDH 82-15. At 150.4-151.3 m. (0.9 m. wide) and at 154.6-155.1 m. (0.5 m. wide), two veins were intersected that returned 0.042 and 0.098 opt Au respectively.

2) The "36" gold-quartz vein trench gave the following values:

DISTANCE	LOCATION	WIDTH	OPT Ag	OPT Au
2 m.	footwall	.46 m.	.07	.41
2 m.	vein	.17 m.	3.85	34.950
2 m.	hangingwall	.61 m.	.16	.852
10 m.	footwall	.36 m.	.56	.005
10 m.	vein	.03 m.	2.27	33.200
10 m.	hangingwall	.37 m.	.79	3.845
20 m.	footwall	.46 m.	.10	.142
20 m.	vein	.03 m.	.03	.003
20 m.	hangingwall	.50 m.	.02	.090
30 m.	footwall	.48 m.	.01	.010
30 m.	vein	.13 m.	.12	.328
30 m.	hangingwall	.37 m.	.10	.003

3) Only 1 out of 13 drill holes (DDH #82-6) gave results (7.550 opt Au over 1.6 ft. or 0.5 m.) which compared to the multi-ounce assays returned from the high grade section of the "36" vein trench.

4) The main reason for erratic results appears to be structural, i.e. free gold occurs in scattered pockets in the quartz veins, and in fractures and on shear planes in the adjacent wall rocks (Grove, 1984).

5) A bulk sample was shipped to Trail, B.C. giving the following results:

ANALYZED FOR:	SAMPLE # 1 (223 lbs.) FINES from 5 tons sluiced	SAMPLE # 2 (296 lbs.) GOLD-QUARTZ grab vein & wall rock
GOLD	4.82 OPT	18.44 OPT
SILVER	0.60 OPT	1.25 OPT
SILICA	66.9%	89.4%
	SAMPLE #3 (4,159 lbs.) FINES from trench bottom	SAMPLE #4 (3,287 lbs.) VEIN & WALL ROCK (3 X 15 ft. area)
GOLD	0.210	0.348
SILVER	2.25	18.60
SILICA	73.7%	84.5%

6) Gold bearing quartz mineralogy includes crystalline arsenopyrite, marcasite, rare chalcopyrite, sphalerite, galena and ilmenite.
7) Alteration within the 50-200 m. thick amphibolite unit adjacent to the "Discovery Zone" consists of: extensive quartz, calcite and gypsum veining, spotty to vein-like K-spar zoning, tourmalinization, epidotization, biotitization of hornblende, and magnetite development (Grove, 1984).
8) Spatial relation of gold-quartz and extensive alteration suggest that the amphibolite unit is significant in the localization of gold ore.
9) Drill results reflect structure and give a "hit and miss" account of gold grades due to its scattered distribution as streaks, pockets and fracture infillings.

4.7 **1984**

Western Geophysical Aero Data Ltd. Flew a regional magnetometer and VLF-EM survey which totaled 2,400 line kms. on 300 m. spaced N-S lines. Significant results of this survey are listed as follows:

1) The "Discovery Zone" is parallel to and along the north edge of a regional mag low trend which extends in excess of 7 km. Over the entire claim group.
2) Mag lows are interpreted as areas of increased alteration associate with major fault systems and secondary cross faulting.

3) Mag highs are interpreted as intrusives cutting metasediments and metavolcanics. Mag highs occur in close proximity to VLF-EM conductor axes in four specific locations: a) 3 km. WNW of Bear Ck. Reservoir Dam. b) 1.3 km. NNW of Bear Ck. Reservoir Dam. c) 1.8 km. N of east end of Bear Ck. Reservoir. d) 2.8 km. NNW of the east end of Bear Ck. Reservoir. In all of these area of interest, none have known gold occurrences, and none have been explored in detail.

Gay A. Wingert completed a B.Sc. thesis for U.B.C. entitled Structure and Metamorphism of the Valentine Mountain Area, SW Vancouver Island, B.C. Her study is summarized as follows:

1) The Leech R. Fm. underwent 2 stages of deformation and metamorphism which correlates with 2 stages of intrusion. Evidence for polymetamorphism is defined by distribution of staurolite and andalusite, indicating there was a primary metamorphic event which reached temperatures high enough to produce andalusite and a secondary metamorphic event of lower grade which only produced staurolite.
2) The second stage of metamorphism began prior to the second stage of deformation.
3) The final stages of igneous activity (presumed to have occurred in Late Eocene to Early Oligocene) coincide with dextral strike-slip movement along the Leech R. Fault. Retrograde alteration consists of staurolite & andalusite partially replaced by sericite-chlorite-quartz, garnets are crushed and altered to chlorite, and biotite and hornblende appears kinked and boudinaged. Late stage retrograde alteration is associated with late stage faulting and intrusive activity which produced dykes & sills, and gold-bearing quartz (Appendix D).
4) The axial trace of a regional E-W trending anticline fold axis is centered on Valentine Mountain.
5) Walker Creek is an axis for an E-W trending anticline fold axis
6) F1 penetrative features are rarely evident east of Jordan R., having been transposed to F2 structures
7) Parasitic mesoscopic folds, boudins, crenulation cleavages and transposed fragmental ptygmatic quartz veins are features of the second deformation

Noranda, Placer, Goldfields and Welcome North sent company geologists to investigate trenches and drill core on the "Discovery Zone". Some samples were taken, but they are poorly documented.

4.8 **1985**

Falconbridge Ltd. optioned the property and excavated two 50 m. long , N-S trending trenches (known as #1 and #2) situated at the east end of the E-W trending "36" trench. They also mapped and sampled the "36" & "A" trenches. Width of vein sampling averaged approximately 0.1 m. Highlights of their sampling program are listed below:

TRENCH	FROM (m.)	TO (m.)	TYPE	Au opt
"A"	0	1	vein	.415
"A"	1	2	vein	.962
"A"	2	3	vein	.195
"A"	3	4	vein	.451
"A"	4	5	vein	18.370
"A"	5	6	vein	.219
"A"	6	7	vein	.112
"A"	7	8	vein	.080
"A"	8	9	vein	5.903
"A"	9	10	vein	.162
"A"	10	11	vein	.062
"A"	11	12	vein	2.184
"1" east wall	8.2	8.5	vein	.619
"1" east wall	8.5	8.7	vein	1.001
"1" east wall	48	49	vein & wall rock	.104
"1" east wall	49	50	vein & wall rock	.084
"1" east wall	50	51	vein & wall rock	.110

TRENCH	FROM (m.)	TO (m.)	TYPE	Au opt
"1" west wall	4	5	vein & wall rock	.099
"1" west wall	5	6	vein & wall rock	.114
"1" west wall	6	7	vein & wall rock	.126
"1" west wall	7	8	vein & wall rock	.083
"1" west wall	8	9	vein & wall rock	.086
"1" west wall	9	10	vein & wall rock	.056
"1" west wall	10	11	vein & wall rock	.083
"1" west wall	11	12	vein & wall rock	.733
"36"	2	3	vein	.016
"36"	9	10	vein	.010
"36"	15	16	vein	.571
"36"	19	20	vein	.110
"36"	20	21	vein	.489
"36"	21	22	vein	.164
"36"	33	34	vein	.029
"36"	34	35	vein	.023
"2" east wall	2	3	wall rock	.034

The weighted averages taken from all the Falconbridge trenching is listed as follows:

DESCRIPTION	LENGTH (m.)	WIDTH (m.)	Au opt
"A" trench north vein	11.0	0.02	1.951
"A" trench north vein and wall rock	11.0	0.16	0.226
"A" trench south vein	9.0	0.04	0.525
"A" trench south vein and wall rock	9.0	0.20	0.136
"A" trench south vein and north splays	12.0	0.04	0.484
"A" trench south vein & north splays & wall rock	12.0	0.20	0.118
"A" trench south vein and south splays	12.0	0.04	0.484
"A" trench south vein & south splays & wall rock	12.0	0.17	0.125
"36" trench west vein	15.0	0.05	0.004
"36" trench middle vein	7.0	0.06	0.153
"36" trench east vein	12.7	0.08	0.008
"36" trench west vein and wall rock	15.0	0.15	0.007
"36" trench middle vein and wall rock	7.0	0.16	0.078
"36" trench east vein and wall rock	12.7	0.17	0.007

The Falconbridge mapping and trenching program identified the following geological features present in the "Discovery Zone":

1) The "36" and "A" vein gold-quartz systems trend at azimuth 068 degrees, dipping 70 degrees south.
2) There are numerous 090 trending, steep S dipping dextral strike-slip faults, offset by later dextral and sinstral strike slip micro-faults (several cm. displacement). Gold-quartz veins appear to have emplaced in between the macro and micro faulting events.
3) Gold grades of the main quartz vein and adjacent wall rock increase where there are zones of increased cross and/or diagonal faulting and fracturing
4) Calculation of weighted averages of vein and wall rock from the "A" trench returned a value of 0.094 opt Au over 1.38 m. along a strike length of 11.0 m.
5) Arithmetic averages of quartz vein from the "A" trench gave 0.959 opt Au and wall rock assays averaged 0.028 opt Au.
6) Biotite gneiss (metasandstone) is the dominant host lithology for gold-quartz veins in the "Discovery Zone". Carbonaceous andalusite-staurolite-garnet-biotite schist (metapelite) forms about 15% of the host lithology for the gold-quartz veins and occurs as narrow, .1-5.0 m. wide, E-W trending bands within the more massive biotite gneiss.

7) Samples identified as carrying visible gold returned assays of 0.001-0.013 opt Au. These samples included severe dilution from non-mineralized wall rock which would partially explain the low values. The other explanation is that the assay lab did not effectively metallic screen the entire sample to recover the observed native gold.

Bondar-Clegg treated a 42.1 kg. (92.8 lbs.) sample from the trench and obtained 8.74 grams Au and 0.46 grams Ag. The grade of this sample is 13.362 opt Au and 0.70 opt Ag.

4.9 **1986**

Garratt Geoservices Ltd. were contracted to review property geological data on behalf of Valentine Gold Ltd. A review of Garret's report is summarized below:

1) Determination of average grade is problematic, but data suggests 0.2-0.5 opt Au range across 1 m. wide
2) Tonnage potential of 500,000-900,000 tons assuming two ore shoots 1.8 X 152 X 304 m. dimension
3) Large samples (in the order of 10-100 kg.) across minimum widths to represent underground mining widths (about 1.5 m.) are required to be the most representative type of sample taken for determining a grade estimation. The large sample would remove sampling bias. Also, a certain amount of gold is liberated as fines created from blasting, which indicates a need to obtain all material when bulk sampling freshly trenched zones.
4) In many cases, visible gold samples have been re-assayed with up to 5 fold variation in results, e.g. the following table lists core drill intercepts with values in opt Au:

DDH	from m.	to m.	int. m.	pulp #1	pulp #2	pulp #3	rej. #1	rej. #2	rej. #3
82-6A	55.47	55.78	0.31	0.024	0.025		0.042	0.032	0.039
82-6A	9.14	9.45	0.31	0.111	0.157	0.177	0.436	0.604	0.597
82-6A	13.10	13.41	0.31	0.034	0.041		0.048	0.046	0.173

5) The phenomenon of reject sub-samples assaying higher than pulps of the original sample is partly explained by the random distribution of gold.
6) Attempting to determine average grade of core drilling intercepts is very risky. Bulk sampling, whereby the gold is recovered from the entire sample, would be the most reliable approach.
7) Recommendation that further drilling comprise 65% reverse circulation and 35% core drilling in order to attain larger diameter sample.

G.R. Peatfield of Minequest Exploration Associates Ltd. issued a report entitled, Geology and Geochemistry of Valentine Mountain. Highlights from this report are summarized as follows:

1) Fieldwork consisted of 107 soil from either side of Bear Creek Reservoir, and 27 silt & 27 heavy mineral samples covering drainages from a 3 X 8 km. area east of the Jordan R.
2) Soil samples identified spot high values up to 400 ppb Au. There were 11 out of 107 samples that gave values greater than 10 ppb Au. Most samples with relatively higher Au values returned very low As values. There is a tendency for samples with higher As to have detectable amounts of Au.
3) Silt samples range from 1-74 ppb Au.
4) 10 kg. Wet sieved -20 mesh silt samples were taken for heavy mineral separation. This sampling method outlined several areas of interest: a) south face of Valentine Mtn., including Tripp, Fred and Valentine Creeks, also including the first main tributary of the west side of Jordan R. (aka Braiteach Zone). b) the first main tributary of Valentine Creek from the northeast. c) a drainage on the south side of Bear Creek Reservoir directly across from Alex Creek.

4.10 **1987-88**

Valentine Gold Corp. optioned the property from Beau Pre Explorations and drilled 43 core holes (28 in the Discovery and 15 in Jordan R. Zones). Additional work by Valentine Gold included; bulk sampling pilot plant, metallurgical testing, and rock chip sampling of the "Discovery Zone", as well as property wide soil &

silt sampling, prospecting & rock chip sampling, Mag/VLF-EM/Max-Min/IP geophysics, and petrographic analysis. A complete review of this work is given below:

The distribution of diamond drill holes is as follows:

# OF DIAMOND DRILL HOLES	LOCATION
14	East portion of Discovery Zone
13	Middle portion of Discovery Zone
1	West portion of Discovery Zone
2	Jordan River Zone
13	Braiteach Zone west of Jordan River

A detailed summary of each of these drill holes is listed in Appendix B. Significant intersections of gold-quartz vein systems are summarized as follows:

"C" Vein zone:
Depth extension of the "C" vein (located 10-15 m. south of and parallel to the "36" vein), defined by a total of 10 drill intercepts are projected on longitudinal section by Gord Allen (Appendix C) outlined an ore reserve calculation of 33,795 tons of 0.429 opt Au (based on a 1.2 m. width) from the "C" vein. The "C" vein is located parallel to and 25-35 m. south of a 100 m. thick, steep south dipping altered amphibolite unit.

"D" vein zone:
The "D" vein is located along the south contact of the altered amphibolite unit. This vein has an inferred strike length of over 500 meters, but no ore reserves have been calculated due to grades which average less than 0.100 opt Au across 1.0 m. in the drill intercepts. The main feature of the "D" vein is a) amphibolite contact and b) fault-bound affinity. The "D" vein fault has led to poor recovery and consequent loss of fines as core drills cut this zone.

"E" vein zone:
The "E" vein was discovered by drilling towards a well defined Au soil anomaly 100 m. north of the "C" vein and 70 m. north of the "D" vein. The "E" vein is hosted by altered amphibolite, and is in close proximity to the gneiss/schist contact (10-40 m. to the north) and to a 2 m. wide, cross-cutting, (unit 5) quartz diorite dyke. DDH 87-14 recorded 0.226 opt Au across a 0.3 m. wide fault zone (@ 49.1-49.4 m.) and 0.033 opt Au across 1.0 m. (@ 78.0-79.0 m.), suggesting the presence of two parallel vein zones.

"A" vein zone:
The "A" vein was intercepted by DDH 87-3 returning 0.046 opt Au across 0.6 m. in a fault zone (@28.5-29.1 m.). The "A" vein is located 20 m. south of the altered amphibolite contact, thus there is some speculation that it is the continuation of the "D" vein because if we follow the zone west to 87-4,5 (0.136 opt Au over 1.0 m. and 0.031 opt Au across 0.9 m. respectively), these intercepts align with a fault zone adjacent to the altered amphibolite, characteristic of the "D" vein.

The results from drilling in the "Discovery Zone" resulted in an ore reserve calculation on the "C" vein zone:

CELL #	HOLE #	AREA m2	TONNAGE @1.2 m.	opt Au 1.2 m.wide	Ozs. Au
1	87-11	1054	3630	1.580	5735
2	88-16	996	3430	0.087	298
3	88-18	1550	5338	0.001	5
4	88-17	1454	5008	0.041	205
5	82-3	748	2576	0.019	49
6	82-6A	530	1825	0.149	272
7	82-6	530	1825	3.080	7393
8	87-22	980	3375	0.033	111
9	88-14	1185	4081	0.031	127
10	88-15	619	2132	0.145	309
		Total tonnage=	33,795	Total ounces Au=	14,504
		Calculated grade=	0.429 opt Au	(see Appendix C)	

JORDAN RIVER DRILLING:

A total of 15 NQ DDH's (87-23,24, 88-1 to 13) totaling 2,243.3 m. (7,358 ft.) was drilled in the "Braiteach" zone immediately west of the Jordan River. Drill results are summarized in Appendix B which show elevated Au values in wide zones of gneiss (metasandstone), associate with disseminated arsenopyrite. Notable intercepts include 88-12 which cut 3.0 m. of 0.133 opt Au hosted in amphibolite, and 88-4 with 1.0 m. of 0.082 opt Au adjacent to a fault in massive gneiss (metasandstone). The style of mineralization is different from the "Discovery Zone" as wide zones of arsenopyrite are present in massive metasandstone. The intercept in DDH 88-12 is hosted by amphibolite and could be very significant because IP and EM geophysics show a positive response which roughly aligns with this drill intersection located east between the Jordan River and the "BN" zone. It is likely that increased sulphides associated with the amphibolite unit account for a positive IP and EM response east of Jordan River and on strike with DDH 88-12 intercept.

BULK SAMPLING:

Bacon, Donaldson and Associates were contracted to perform metallurgical testing, design, construction and operation of a 20 tpd bulk sampling plant. Initially, two 45 gallon drums were filled with vein and wall rock from Falconbridge trench #1 and one 45 gallon drum from the "A" trench which gave the following results:

BARREL/ TRENCH	SAMPLE WEIGHT	JIG REC. % OF OVERALL	TABLE REC. % OVERALL	TOTAL RECOVERY	CALC. GRADE opt
"A"	372 lbs.	58.25	16.43	74.67	0.391
FL1/#1	365 lbs.	23.67	20.05	43.72	0.382
FL2/#1	403 lbs.	17.65	27.04	44.69	0.144

The 20 tpd plant started in June 1987 and ran until Feb., 1988 with a recorded through-put of 653.1 tons giving the following results:

LOCATION	TONS	GRADE opt Au	RECOVERY
#1 TRENCH D-14	247.1	0.015	?
"36" VEIN EAST	184.0	0.106	?
"36" VEIN WEST	222.0	0.027	?

Bulk trench excavation (i.e. several tons) of vein and wall rock usually was accompanied by excessive dilution of barren wall rock, i.e. the impression that open pit rather than lode vein mining was taking place (Grove, 1990). Additional "mini-bulk" sampling (in the order of several hundred pounds), returned the following much more impressive results:

TRENCH	WEIGHT	WIDExLONG	GRADE opt	PROCESSOR
"A"	300 lbs.	1 X 50 feet	5.557	Nesmont
"36" east	100 lbs.	1 X 4 feet	4.800	Nesmont
"36" west	347 lbs.	6 X 30 feet	7.688	Nesmont

SOIL SAMPLING:

A total of 5,900 soil samples were analyzed for Au and 30 element ICP. The most prominent Au soil geochemical clusters are located in the following areas:

1) "BN" zone which has a strong coincident As signature. High values up to 354 ppb Au with a dominant large cluster of greater than 50 ppb Au.
2) "Braiteach" zone which also has coincident As anomaly. High values up to 450 ppb Au with two main E-W trending anomalous zones greater than 50 ppb Au. These two zones are 200 m. apart with the southernmost zone adjacent to the main creek.
3) "Discovery" west which is coincident with the altered amphibolite trend. High values of 2,250 ppb Au along a 900 m. strike length with a 200 m. long by 75 m. wide clearly defined Au soil cluster (followed up by Noranda's DDH 89-22,23,24).
4) "Discovery" zone, the main area of trenching has high values up to 45 ppb Au and there does not appear to be direct Au-As correrlations.

SILT SAMPLING

A total of 490 pan concentrate samples were taken from creekbeds within the property. A list of above average Au values are listed as follows:

SAMPLE #	LOCATION	PPB Au
87-25-DOS	Tributary of west Leech R. (resample)	105,000
87-34-HM	" " " "	19,000
87-L1-HM	" " "	11,900
87-210-HM	Creek north of Jordan R.	8,750
87-223-HM	" east " "	1,680
87-392-HM	" north " "	1,300
87-159-HM	"Braiteach Zone"	1,550
87-5-HM	Lower Fred Ck.	8,340
87-10-HM	North shore of Bear Ck. Reservoir	1,350

GEOPHYSICS:

M.W.H. Geophysics Ltd. performed several line km. of Max-Min on the "BN" and "Braiteach" zones with 25, 50, 100, & 200 m. coil separation. A moderate strength conductor axis and a sub-parallel weak conductor axis were located between "BN" and DDH 88-12 located 200-300 m. east of the Jordan R.

Pacific Geophysics Ltd. performed IP on the "Braiteach" and "Discovery" zones, initially using 20, 30,50, & 70 m. dipole spacing, the final survey utilized 30 m. spacing since this gave good resolution for vein/shear targets (as IP is generally used for porphyry targets). Filtered contour presentation of data on the "Braiteach" shows a weak apparent chargeability increase (10-15%), along the west extension of DDH 88-12 gold bearing fault zone. There is also a subtle chargeability increase 350 m. to the north along the axis of a 075 trending creek. This zone corresponds to DDH 88-4 which intersected gold-quartz veins associated with widespread arsenopyrite mineralization. Filtered contour presentation of apparent resistivity shows an unresolved NNW trending low which is parallel and 150 west of the Jordan River. The lack of clear definition by the IP survey suggests a relatively low abundance of sulphide mineralization.

Ground VLF-EM was run on the "Discovery" and "Fred Ck." grids. Approximately 10 E-W trending conductor axes were identified with strike lengths up to 3 km. The location of the conductors suggests they correlate with faulting and shearing near or along lithologic contacts. Several anomalies correspond directly to known gold-quartz vein systems in the "Discovery Zone".

Dighem Surveys & Processing Inc. performed 402 line km. of EM/resistivity/magnetic/VLF-EM. Based on interpretation of data this survey outlined the following high priority targets:

1) ANOMALIES 10200A, 10210A & B: Located 2.7-3.0 km. NNE of the mouth of Walker Ck. these are classed as weak strength, well defined, narrow conductive source within bedrock, E-W trending resistivity low and EM conductive zones associated with a very weak mag high. Since this target is associated with the regional E-W trending fault system which aligns with most of the known gold mineralization on Valentine Mountain area, this target is a high priority follow up.
2) ANOMALIES 10351 to 10401: Located 1.7-2.1 km. NE of the mouth of Walker Ck., this prominent mag high is associated with a 40-60 m. wide, magnetite enriched, intrusive granodiorite/orthogneiss sill/dyke.
3) ANOMALY 10481: Located at the east end of the "BN Zone" Au soil anomaly (700 m. east of Jordan R.) is a convergent E-W and NW-SE magnetic break interpreted as a cross fault along the main E-W trending Au zone. The close proximity of this feature to strong Au soil geochem makes this area very important as a follow up target.
4) ANOMALIES 10590 to 10610: Located 1 km. north of the mill ("Discovery Zone"), this target is a very weak positive EM response, coincident with a well defined ENE-WSW trending mag axis as well

as a 1,000 ohm-m resistivity gradient, suggesting a contact with a more conductive unit to the northeast and a more resistive unit to the southwest.

5) ANOMALIES 10720 to 10760: Located in the NE corner of the survey and within south trending tributaries of Valentine Ck. (which contain anomalous Au values in stream sediments), are 3 sub-parallel, ENE-WSW trending moderate strength EM conductors.

Valentine Gold geologists took 890 rock chip samples as part of a property wide survey and identified the following zones of interest:

1) "BN Zone": Samples up to 0.160 opt Au.
2) "Braiteach Zone": Samples up to 0.530 opt Au with 11 samples in excess of 0.006 opt Au.
3) "Fred Ck. Zone": Samples up to 0.180 opt across width of 1.0 m. located about 150 m. west of DDH #FC-1.
4) "Metchosin Volcanics": Samples up to 0.420 opt Au located 550 m. south of the east end of the Bear Creek Reservoir.

PETROGRAPHIC ANALYSIS:

Vancouver Petrographics Ltd. (Dr.John Payne, Dr Jeff Harris, & Wendy Sisson) prepared detailed reports on core and trench samples. A summary of their work is listed below:

1) The main rock types which host ore in the vicinity of the "Discovery Zone" trenches are a) metasandstone, b) metasiltstone, c) metamudstone. Less abundant host rocks include garnet-bearing schist and a mafic volcanic rock altered to chlorite-carbonate-epidote-actinolite. Several 1-3 m. wide granodiorite/quartz diorite dykes/sills cut the above sequence.
2) Regional deformation resulted in a series of SE trending folds with steeply dipping axial planes and moderately ESE plunging fold axes. Strongly folded, finely banded argillitic schist is crosscut at a high angle by quartz veins up to 10 cm. across. These veins are folded moderately to tightly about axes which may be coaxial to those which had already deformed the schist host rock. This suggests that two pulses of deformation occurred in the same stress field, and were separated by a tensional event during which quartz veins were introduced.
3) Rocks from the "Braiteach Zone" are less deformed, and contain less interbedded argillaceous siltstone/mudstone than the "Discovery Zone".
4) Early quartz veins are distended and smeared out, being locally obliterated in part. Less deformed quartz veins may represent later veins which represent tensional dilation that crosscuts the regional trend of foliation at a small angle.
5) The "Discovery Zone" gold bearing veins contain quartz which has deformed and partly recrystallized to much finer aggregates, with inclusions of quartz with abundant fine grained pyrite and/or pyrrhotite along grain boundaries. Native gold occurs in later, discontinuous veinlets and replacement patches, whose emplacement is moderately controlled by grain borders of deformed quartz. Locally, native gold (and pyrrhotite) occurs in tiny tiny inclusions in coarse grained arsenopyrite.
6) Paragenetic assemblages suggest that during metamorphism, native gold and arsenopyrite were concentrated into shears zones (preferentially in fold closures), and in part into quartz veins formed during early stages of deformation. The presence of K-spar envelopes and euhedral tourmaline suggests a component of hydrothermal contribution to Au-As bearing mineralization. At a later stage, further quartz veins formed, and gold migrated into some of these, possibly near the end of the deformational event.

Pincock, Allen & Holt Inc. (Dr. George Armbrust) prepared a paper entitled A Review of the Valentine Mountain Property Vancouver Island, B.C. This report is summarized as follows:

1) Visible gold occurred in 9 of 10 drill holes, however due to the erratic wide range in gold values for the quartz vein intervals, confidence in the calculated grade is not sufficient to categorize this resource as a reserve. The main problem is the coarse grained nature of the gold.

2) PAH Inc. recommends systematic bulk sampling of trenches on veins in the "Discovery Zone" as well as further exploration on previously identified high priority targets (approximate budget of $400,000).
3) A second phase recommended by PAH Inc. would involve underground testing on the veins in the "Discovery Zone" to a depth of 40 meters by driving a decline on the veins (approximate budget of $6,000,000)
4) There is a reasonable possibility for the discovery of a deposit containing 500,000 to 1,000,000 tonnes @ 10-15 g/t Au (o.3-0.5 opt Au).

Gord Allen, P.Eng. reviewed the data and recommended the following work program:

1) Trace known mineralized structures to depth and to the west in order to outline new ore reserves.
2) Excavate "C", "B", & "D" vein systems 120 m. strike length starting near cross trench #1 and working west towards the mill. Core drilling along this strike length to intercept vein systems at shallow, medium and deep depths (approximately 30, 60 & 90 m.).
3) Detailed surveying to tie in all drilling, trenching and grids.
4) Underground exploration of "Discovery Zone" @ estimated cost of $1,575,000 (Chamberlain, 88).
5) A 120 m. deep drill hole to test the horizon 25 m. east of Au intersection (0.136 across 3.0 m.) in DDH 88-12 located on banks of Jordan R.
6) Property wide prospecting, mapping and sampling anomalous Au in soil and silt sampling.

Dr. J.A.Chamberlain, P.Eng. of Dolmage Campbell Ltd. prepared a development proposal for the "Discovery Zone" which is summarized below:

1) The Valentine property presents a classic example of dealing with the nugget effect when attempting to obtain a representative sample. Gold is erratically distributed along planar features over widths of a few cm. and exhibits sharp cutoff grades in adjacent wall rock.
2) The veins are narrow with little alteration of wall rocks, however they are continuous planar features for hundreds of meters along strike and down dip extensions are confirmed by drilling to at least 200 m.
3) Out of 39 drill holes in the "Discovery Zone" there were 10 intersections greater than 0.1 opt Au (across widths of 0.3-1.0 m.) and 2 of these intersections were greater than 7.0 opt Au. The drill program appears to be useful at confirming vein location at depth, but not very good in terms of establishing ore reserves.
4) Surface trenching of gold-quartz veins in the "Discovery Zone" has met with limited success not only because of overbreak is hard to control, but also because free gold tends to work its way downward into available openings during excavation.
5) Channel sampling across veins at surface has been less than satisfactory due to the erratic distribution of gold.
6) Present knowledge about the "C" & "B" vein systems in the "Discovery Zone" indicates they have an aggregate strike length of at least 800 m. and a down-dip extension of 200 m. Using these dimensions across a stoping width of 1.5 m. and S.G. of 2.65 results in the total of 636,000 tonnes (800X200X1.5 X2.65) of which approximately 44,500 tonnes could be expected to contain 89,000 troy ounces of gold (@ 2.0 opt Au).
7) Assuming a crosscut and drift was located 40 m. below surface (760 m. elevation), the total vein material above this level would be about 130,000 tonnes of which 9,000 tonnes (across 1.5 m. width) could be expected to contain 18,000 troy ounces of gold.
8) The statistics used for grade and tonnage calculations are weak because of the limited amount of samples. True reserves could be lower or higher than stated, however the virtual two-dimensional nature of the target, locally poor recovery and other related sampling factors suggest that reserve estimates are understated rather than overstated.
9) A 270 m. crosscut adit with portal at 760 m. elevation, 150 m. of drifting and 50 m. of raising are recommended as a first phase of underground exploration for the purpose of establishing proven reserves (approximate budget of $760,000)
10) A second phase of underground exploration would include: a) extend drift 270 m. to north portal b) extend crosscut 45 m. c) subdrift 100 m. d) raising 80 m. (approximate budget $815,000).

11) If the Valentine vein system is explored and developed with close geological control and mined carefully so as to keep dilution to a minimum, it could be a small but lucrative producer for many years.

4.11 **1989**

Noranda Exploration Ltd. optioned the property to explore for Kolar, India and/or Bendigo, Australia type auriferous quartz systems. The detailed exploration program focused on the "Discovery Zone" (west extension), "Braiteach:" & "BN", and Walker Ck. areas and consisted of 17.8 line km. of IP, 51.6 km. of magnetometer surveys, geological mapping (81.4 km. grid lines), 1,355 soil samples, 1,121 rock chip samples, & 727.2 m. of diamond drilling in five holes. Expenditures for this program were about $500,000 and are summarized as follows:

1) Unit 2 gneiss (metasandstone) is divided into 2 sub-units: 2a) meta-greywacke has a better developed schistosity and higher % of lithic fragments than 2b and is generally darker coloured, 2b) massive metasandstone light to dark grey colour with minor schistosity with 5% disseminated biotite. Unit 2b is very hard to break because it has been partially recrystallized.
2) Unit 1 schist (metapelite) is divided into 5 sub-units: 1a) phyllite, extremely fine grained and fissile, with abundant sericite and minor biotite on cleavage surfaces as a result of retrograde metamorphism related to movement along proximal faults. 1b) biotite schist, medium grey to black colour, quartz and biotite form light and dark bands 1-3 mm wide, garnet and/or andalusite/staurolite porphyroblasts are often observed within the biotite schist. 1c) Biotite-garnet schist, similar to 2b with the addition of 1-10 cm. reddish brown, euhedral garnet crystals. 1d) Biotite-garnet-staurolite schist, similar to 1c with the addition of euhedral staurolite commonly cruxiform. 1e) Biotite-garnet-staurolite-andalusite schist, similar to 1d with addition of 1-8 cm., pink andalusite porphyroblasts.
3) Cataclastic textures observed in unit 1 schist consist of angular quartz fragments that have been deformed and flattened in the direction paralleling schistosity as a result of mechanical forces caused by proximal faults and/or overthrusts.
4) Unit 5 Eocene intrusives consist of quartz diorite which occurs as a 2.8 km. long X 0.1-0.6 km. wide sill feature that widens out in Walker Creek. This quartz diorite has numerous 1-3 m. wide aplite sills with localized 1-3 mm wide orange-red colour, euhedral garnets.
5) Unit 6 pegmatite is leucocratic with calcic feldspar, sericite, quartz and localized tourmaline crystals up to 10 cm. in length. Pegmatite dykes and sills range from 0.1-1.5 m. width and occur in the Walker Creek area.
6) 1-5 cm. wide parasitic "S" and "Z" folds were observed in schist layers and quartz veinlets, which serve as a guide to direction of fold hinges and indicate a major E-W trending, gentle east plunging anticline along the axis of Valentine Mountain Ridge.
7) Quartz veins occur throughout all rock units mapped and vary from 0.05 to 2.0 m. width. They are generally milky white "bull" quartz with occasional subhedral crystals. Limonite is frequently observed, minor fine grained pyrite and lesser pyrrhotite occurs as fracture coatings in quartz. Arsenopyrite crystals were observed in quartz veins and wall rock. There appears to be an association of arsenopyrite and gold bearing quartz veins.
8) Gold bearing zones within the amphibolite are associated with pyrrhotite aggregates (forming 3% of total volume), however not all pyrrhotite zones contain gold mineralization.
9) Quartz veins hosted in schist (metapelite) generally parallel well developed schistosity. In gneiss (metasandstone), quartz veins 0.05-0.1 m. wide cut sandstone beds at angles of 30-45 degrees, and bedding is at low angles to foliation.
10) Variation in quartz veining between various lithologic units reflects the units themselves, i.e. quartz vein material is of metamorphic origin with relatively minor influence of hydrothermal activity. Phyllites contain the least quartz and metasiltsones contain the most quartz, with amphibolite and metasandstone containing relatively medium amounts of quartz.
11) Gold bearing quartz veins are predominantly hosted by metasandstone. The "B" quartz veins are translucent to transparent and commonly light orange in colour and the "C" vein is generally grey black in colour. Gold mineralization occurs within the vein material as well as the adjacent wall rock.

12) Magnetometer data shows a strong, narrow, 120 trending dipolar (high and low) feature east of L 18100 E. In the area of the "Discovery Zone" this feature appears as a broad mag high over the amphibolite unit (probably caused by increased magnetite and/or pyrrhotite) and an adjacent mag low to the north which may reflect massive metasandstone. West of L 17600 E, a similar, narrow magnetic response has a more subtle character. The pronounced background and source shift hints at a possible fold axis occurring on L 17600 E at stn. 20750 N (also observed by IP data).
13) IP data from the west "Discovery Zone" indicates a chargeability/resistivity high and coincident Au soil geochem anomaly between L 20600 E/20087 N and L 19600 E/ 20137 N. Core drilling this target between L 19800 E and L 19900 E proved to be successful in identifying two gold bearing zones localized along the contact of mixed metapelite/metasandstone and altered amphibolite. DDH 89-24 intersected 2.301 opt Au across 0.3 m. @ 59.1-59.5 m.
14) IP data from "BN" and "Braiteach" zones identified a similar IP chargeability/resistivity high and coincident Au soil geochem anomaly between L 17150 E to L 18000 E located parallel and 50-125 m. north of the baseline.
15) "Braiteach Zone" DDH 89-20 and 89-21 were collared on the west projection of Au intercept 0.136 opt Au across 3.0 m. in DDH 88-12. DDH 89-20 cut 17.8 m. overburden, the following 99.1 m. cored through amphibolite with 5-7% quartz as stringers and veinlets with no significant Au values. Increased quartz, with 3-4% pyrite, pyrrhotite and chalcopyrite occur at 62.8-63.8 m. Fault breccia and gouge with 2-3% pyrite and pyrrhotite was cut at 76.5-77.8 m. An increase in biotite rich layers occurs at 77.8-84.4 m. with up to 4% disseminated pyrite, pyrrhotite and chalcopyrite. DDH 89-21 had 25 m. of overburden, followed by 86.1 m. of amphibolite. An increase in biotite rich layers with 4% disseminated pyrite, pyrrhotite and chalcopyrite occurs at 75.1-82.6 m. Fault gouge and shearing with 2-3% pyrite occurs at 93.5-94.7 m. and 103.3-109.0 m.
16) "Discovery West" DDH 89-22,23,24 were drilled to intersect an IP target of high chargeability and resistivity which coincides with anomalous Au geochem and is interpreted as being the west extension of the "C" and "D" vein systems. DDH 89-22 cut 3 quartz veins, the largest being 20 cm., with mineralization consisting of 10% pyrite and 1% pyrrhotite. The "D" vein system located 4 m. above the metasandstone/amphibolite contact returned 740 ppb Au over 1.5 m. Within the amphibolite at 148.3-149.3 m. there is a 1.0 m. interval with visible gold that returned 0.027 opt Au. DDH 89-23 cut two quartz veins, the largest being 0.35 m. wide with 1-2% pyrite and 1% pyrrhotite which are interpreted as the "C" vein system was intersected at 56.9-58.4 m. returning 0.040 opt Au across 1.5 m. width and the "D" vein at 106.5-108.0 m. assaying 0.028 opt Au across 1.5 m. DDH 89-24 cut 4 quartz veins, the largest being 0.41 m. wide, with 1-2% pyrite and less than 1% pyrrhotite. DDH 89-24 intersected 2.301 opt Au across 0.4 m. @ 59.1-59.5 m. depth. This intersection is situated 2.2 m. above the metasandstone/amphibolite contact and is interpreted as the "D" vein system. At 69.0-70.0 m. depth, DDH 89-24 cut a biotite rich layer with 0.5% euhedral garnet porphyryblasts, 1-2% pyrite and 1% pyrrhotite which returned assay values of 0.087 opt Au across 1.0 m. At a depth of 129 m., DDH 89-24 intersected a 5 m. wide band of 2-3% pyrrhotite blebs (with assay values up to 0.013 opt Au across 0.4 m.), and the projected IP chargeability high correlates with this mineral zone.
17) Detailed mapping of the "BN Zone" shows the gold-bearing quartz vein systems are predominantly hosted by gneiss (metasandstone, unit 2), typically with 10-20% biotite and exhibiting "woodgrain texture". There is some interbedded biotite-garnet-staurolite schist (unit 1) at L 17600 E/20935 N where there are 5-25 m. wide quartz vein swarms along the contacts of unit 1 & 2. At the southern edge of the Au soil anomaly is a massive, chlorite altered amphibolite (unit 3). A total of 41 rock chip samples were taken with the following highlights:

SAMPLE #	Au ppb	As ppm	WIDTH m.
59655	5950	2219	0.03
58559	5530	3	0.05
59662	3960	1730	0.02
59660	3850	573	0.02

18) "Braiteach Zone" trench sampling is summarized as follows: a) Zone #1outcrops in a road cut on J-6 logging road where specks of visible gold were found in limonitic, vuggy quartz hosted in a hydrothermal alteration zone within metasandstone. Out of 5 channel, 3 panel and 1 grab sample, the

highest geochemical value returned was 390 ppb Au and 538 ppm As. b) Zone #2 is located 55 m. north of the baseline on L 16800 E where a 0.08 m. wide E-W trending quartz vein was channel sampled in 11 locations along the outcrop, returning a high value of 740 ppb Au, and 875 ppm As. c) Zone #3 is 80 m. WNW of zone #2 and consists of a main E-W trending, steep north dipping quartz vein with 10-20% quartz stringers 1 m. from the vein, which decrease with distance from the main vein. Results produced a high value of 150 ppb Au and 1063 ppm As. d) 8 chip samples from Zones #4-6 returned values up to 159 ppb Au and 25 ppm As.

19) Rock chip sampling on the Peg and Bo Claim Groups (Walker Creek area), returned 0.67% Cu across 0.2 m. and 0.28% Cu across 0.1 m.
20) Recommendations for further work include exploration and development of low tonnage, high grade ores shoots along the 7 km. strike length which is known to host gold-bearing quartz vein systems.

4.12 **1990**

Dr.E.W.Grove, P.Eng. submitted a Summary Geological Review of the Valentine Mountain Gold Project. This comprehensive text with figures highlights most of the data presented in this 1997 review and was used as a reference for data compilation. A summary of Dr. Grove's recommendations is listed below:

1) "C" vein stage 1- Stripping and trenching along vein @ 25 m. intervals, 2,300 m (7,544 ft.) core drilling, geological support, assays (approximate budget $387,000, see Appendix J).
2) "C" vein stage 2- Mining 20 X 50 X 1 m. block, geological support, assays (approximate budget $206,500, see Appendix J).
3) "BN & Braiteach Zones"- 1,000 m. (3,280 ft.) core drilling, geological support, assays (approximate budget $158,300, see Appendix J).

The total budget recommended for the three programs of exploration and development listed above is approximately $752,600 (Appendix J).

4.13 **1992**

Beau Pre Explorations Ltd. shipped 2.196 tons of crushed ore from the "C" vein system to Nesmont Precious Metals Corp. which gave the following results:

SAMPLE ID	Au opt	Ag opt	WEIGHT lbs.	WEIGHT OF DORE BAR
Concentrate	812.5	303.5	9.124	5.448 troy ounces
Middlings	11.82	29.23	12.613	not smelted
Tails	0.111	0.04	4370.263	not smelted

A 0.5 kg. control sample of the above bulk sample was sent to Bondar-Clegg for a check assay, and it returned 1.551 opt Au and 0.20 opt Ag.

4.14 **1994**

Fairbank Engineering Ltd. performed detailed mapping and channel sampling of the "C" vein across widths of 0.1-1.2 m., at 5 m. intervals, along a total strike length of 35 m. A summary of his work is as follows:

GRID #	SAMPLE #	WIDTH m.	Au opt	Description
0 W	1	0.15	0.714	vein
0 W	2	0.20	0.095	vein
5 W	3	0.07	0.309	vein
5 W	4	0.40	0.009	wall rock
5 W	5	0.65	0.001	wall rock
15 W	6	0.07	0.880	vein
15 W	7	1.10	0.006	wall rock
20 W	8	0.11	0.075	vein
20 W	9	0.10	0.001	wall rock

25 W	10	0.09	0.487	vein
25 W	11	1.00	0.004	wall rock
25 W	12	0.13	0.001	wall rock
30 W	13	0.90	0.011	wall rock
30 W	14	0.30	0.036	wall rock & vein
33 W	15 Simon vein	grab	0.071	vein

Proton Engineering and Construction Ltd. revised the plant process flow sheet for a 50 ton per day pilot mill. There processing recommendations include screening and crushing mine ore, whereby fine ore is fed to the ball mill and then jigged and gravity tabled to produce table concentrate, the reject is recycled through a 6" cyclone classifier and then through a rougher and 2 cleaners to produce a final concentrate and tailings.

This plant, as described above (with minor modifications, see Appendix I), is presently on site 100 m. west of the "C" trench, which is being used for mine ore.

The B.C. Geological Survey Branch and the G.S.C. prepared a paper titled Andalusite in British Columbia-New Exploration Targets (Dr. G. Simandl, et.al.). There was a chapter of this paper devoted to the Leech River Area with specific mention of possible economic deposits within the subject property. A point form summary of this paper is given below:

1) Typical grades of primary "hard rock" andalusite ores vary from 7 to 20%. Typical production capacities of individual mines vary from 25,000 to 65,000 tonnes per year.
2) The coarser the crystals, the easier it is to upgrade the ore. Garnet and staurolite typically coexist with andalusite and where grades and textures permit, they are recovered as byproducts.
3) Most of the area east of Valentine Mountain contains andalusite strongly retrograded to either mica and staurolite or mica and chlorite. The retrograde alteration appears to be strongest in the "Discovery Zone"
4) The degree of retrograde alteration diminishes westward where an E-W trend formed by occurrences mapped by sample reference # LR 114,13,32,35 & 37 is especially interesting and may host zones of economic andalusite-garnet-staurolite.

The government geologists are most cooperative with respect to detailed information regarding the showings and are willing to make property visits to give us a better insight into this relatively new exploration target (Dr.G. Simandl, personal communication).

5.0 **PROPERTY GEOLOGY**

The following legend is used to described rock types of the Leech River Group and younger intrusiuve rocks which underlie the Valentine and West Leech Claim Groups:

EOCENE AND YOUNGER? INTRUSIVE ROCKS

6 Pegmatite, Leucocratic dykes and sills

5 Quartz diorite, minor granodiorite, granite
5a Aplitic dykes and sills (leucocratic, fine grained)

TRIASSIC TO CRETACEOUS? LEECH R. GROUP METAMORPHIC ROCKS

4 Phyllite (finer grained and better cleaved than schist)

3 Amphibolite (metavolcanic)
3a Tuff

3b Flow
3c Pervasive chlorite alteration

2 Gneiss (metasandstone)
2a "Dirty"- greywacke
2b "Clean"- metaquartzite

1 Schist (metapelite)
1a Biotite schist
1b Biotite-garnet schist
1c Biotite-garnet-staurolite schist
1d Biotite-garnet-staurolite-andalusite schist

Refer to chapter 4 for detailed summary of property rock types and their correlation with various types of alteration, mineralization, and mode of occurrence.

6.0 1997 FIELDWORK
6.1 METHODS AND PROCEDURES

To date, orientation traverses and geological mapping of the "BN", "Braiteach" and "Discovery Zones" have been made by the author in order to effectively plan a work program which will focus on these areas.

6.2 See recommendations in chapter 8.0 for proposed 1997 field program.

7.0 DISCUSSION OF RESULTS

A review of the data from previous work on the Valentine Mountain Gold Project offers a unique insight into problems in submitting field samples to the laboratory that adequately represent the material being tested, and using laboratory procedures that yield an analysis which approximates the true element concentration in the field sample. It has been suggested that larger sample size and consistency in sample site selection is needed for improved field sample, and maximum yield of prepared sample by the laboratory using metallic screen analysis and duplicate analysis using average of two or more values would improve confidence in ore reserve calculations. Clearly the need for careful mapping, improved control of field sampling and whole sample laboratory analysis (Appendix G) will be highest priority for future work on Valentine Mountain. It should be pointed out that these procedures are very basic requirements for most gold deposits, especially at an exploration and development stage, but they are amplified by the presence narrow, high grade pockets and blebs of native gold present on the subject property.

The gold-quartz veins found on the Valentine and West Leech Claim Groups are hosted in a variety of metasedimentary rocks confined to sharply defined, ENE to SSE trending late fractures localized near or at the contacts of altered amphibolite units which also host gold-quartz veins and auriferous sulphide lenses. The importance of the amphibolite units as a gold source compares favorably to Kolar, India (which boasts production of over 15 million tonnes @ 0.4 opt Au) whereby there are similar relationships of veins to mafic volcanic units. The Kolar veins contain native gold-pyrite-pyrrhotite-arsenopyrite-chalcopyrite-galena mineralization in a gangue of quartz-calcite-magnetite-ilmenite-tourmaline-biotite-garnet-dumortierite-hornblende-pyroxene-tremolite-epidote-chlorite which are hosted in a 12 km. long belt of Archean age metasediments and metavolcanics (see Appendix K for Canadian examples of Archean age gold lodes).

The continuity of the Kolar gold-bearing trends, their geological setting and mineral assemblages share many similarities to the Valentine Mountain gold trend, however the Valentine gold deposit was emplaced at a much younger age (Tertiary-Eocene?), and relative simplicity of vein mineral assemblages and alteration of the Valentine Mountain deposit suggest single-pass conditions along narrow channelways (Grove, 1990). These channelways reflect deeply sourced metamorphic fluids (enriched in quartz, tourmaline, pyrite, pyrrhotite, and/or arsenopyrite) which have moved into a higher brittle environment and late-stage magmatic

fluids (enriched in quartz, tourmaline, pyrite, pyrrhotite, and/or arsenopyrite) which have interacted and ascended into a brittle fracture environment prepared by magmatic wedging (Grove, 1984). Zoning of mineral assemblages suggests gold-bearing pyrite may be encountered between the Jordan River and "Discovery Zone" where prospecting has been minimal, in part because of lack of roads (Grove, 1990).

The presence of coarse grain andalusite-garnet-staurolite in the northwest corner of the claim group indicates that an evaluation of grade, texture, and impurity content related to the economic marketability of this product will be necessary. Metallurgical studies are being carried out on a staurolite bearing schist in Ontario. Should that deposit prove to be viable, then the Leech River area should be re-examined in that context (G. Simandl, 1994).

8.0 CONCLUSION & RECOMMENDATION

To date, core drilling and trenching have identified narrow, high grade gold deposits in the "Discovery Zone" which have sufficient grade and tonnage to be considered economically viable (pending a feasibility study prior to production). The "C" vein system contains an estimated 33,975 tons @ 0.429 opt Au across a mining width of 1.2 m. for an estimated resource of 14,504 troy ounces of gold.

A program of approximately 2,562 meters (8,400 feet) of core drilling, 400 cubic meters of trenching and detailed geological mapping and surveying of the "Discovery Zone" (east and west of the of the mill site) and "BN Zone" would have potential to expand the known ore reserve. Appendix E is a copy of the notice of work filed with the Provincial Govt. (as per regulations under the Mines Act) of which a copy was sent to the landowner, Pacific Forest Products Ltd. This work proposal outlines approximately 1,098 m. (3,600 ft.) of core drilling in the "Discovery Zone" east of the mill, 549 m.(1,800 ft) in the "Discovery Zone" west of the mill (near Noranda DDH's 89-22,23,24), and 915 m. (3,000 ft.) in the "BN Zone" (see maps in Appendix E). Most of the drilling would be targeting trench sites where the presence of gold bearing mineralization has been confirmed, as trenching would be ongoing with the drill program (maps in Appendix E show proposed trench sites. The budget for this program corresponds with Dr.E.W.Grove's proposal of Stage I and Stage III development budget proposal (Appendix J). The budget totals for both programs total $546,100. *Please note that if this report is to be filed as a prospectus or statement of material facts, a formal budget can be presented to show specific proposed expenditures which closely match the Statement of Work filed in March, 1997 (Appendix E).

The objective of the program is to outline extensions and discover new high grade auriferous ore shoots in order to substantially increase the ore reserves, (keeping in mind that core drilling will serve to outline depth extension of gold mineralization, i.e. structure, and trenching to access representative sample material will serve as an indicator of Au grade). A common phrase used in gold exploration is "drill for structure, drift for grade" (and countless times mentioned, using more eloquent phrases, in the numerous reports that were reviewed involving the subject property). Thus, a second phase of development work is recommended that would closely resemble the proposal outlined by Dr.J.A.Chamberlain of Dolmage-Campbell Ltd. which describes a 2 phase program including 965 m. of underground advance at a proposed total budget of $1,575,000 (Appendix H).

A small portion of the geological mapping budget (about 15%) will be devoted to exploration and follow up petrographic analysis of andalusite-garnet-staurolite schist units that exhibit economic potential as industrial mineral deposits within and adjacent to the claim area (Appendix F).

REFERNCES

Allen, G. (1989): Valentine Mountain Property "C" Vein Ore Reserves, Beau Pre Exploration Ltd.

Armburst, G.A. (1989): Review of Valentine Mountain Property, Vancouver Island, B.C., Pincock, Allen, & Holt Inc.

Boyle, R.W. (1979): The Geochemistry of Gold and its Deposits, G.S.C. Bull.# 280

Chamberlain, J.A. (1988): Review of Valentine Mountain Gold Project, Dolmage Campbell & Assoc. Ltd.

Chandler, T. (1985,1986): Internal memos, Letters, Maps, Reports, Falconbridge Ltd.

Colvine, A.C. (1988): An Empirical Model for Archean Gold Deposits, Econ.Geol. Mon.#6, Geol.of Gold.

Fairchild, L.H. (1979): The Leech River Unit and Leech River Fault, Southern Vancouver Island, B.C.; M.Sc. Thesis, University of Washington.

Fairchild, L.H. (1982): Structure, Petrology, and Tectonic History of the Leech River Complex, NW of Victoria, Vancouver Island; Can. Journal of Earth Sciences, Vol. 19, pages 1817-1835.

Garratt, G.L. (1986): An Evaluation of the Valentine Mountain Property for Valentine Gold Corp.

Grove, E.W. (1981): Assessment Report, Blaze & BPEX Claims, for Beau Pre Explorations Ltd.

Grove, E.W. (1982): Geological Report and Work Proposal on the Valentine Mountain Property for Beau Pre Explorations Ltd.

Grove, E.W. (1984): Geological Report and Work Proposal on the Valentine Mountain Property for Beau Pre Explorations Ltd.

McCorquodale, J.E. (1989): Summary Report, Beau Pre-Valentine Project, Noranda Explorations Ltd.

Simandl. G.J., (1994): Andalusite in British Columbia-New Exploration Targets, B.C. Geological Survey Branch and G.S.C.

Valentine Gold Corp. (1988): Valentine Mountain Project Report.

Wingert, G.A. (1984): Structure and Metamorphism of the Valentine Mountain Area, SW Vancouver Island, B.C., B.Sc. Thesis, U.B.C.