REPORT

on the

COPPER MOUNTAIN SYNDICATE

CMS(N) and CMS(S) GROUPS

Princeton Area

Similkameen Mining Division, British Columbia

Latitude 49° 25' N., Longitude 120° 27' W.

NTS map sheet 92H/8W

by

James W. McLeod, P.Geo.

on behalf of

Owners: G. DeLorme, E. Becker, J.P. Loiselle and H. Fournier and BIG I DEVELOMENTS LTD. GOLDEN KOOTENAY RESOURCES INC.

June 20, 1997

Delta, British Columbia and Action Survey on Action 13 (Representation)

25.061

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SUMMARY

The current report reviews the fieldwork carried out under the writers' supervision during the summer of 1996 and the spring of 1997 on the Copper Mountain Syndicate North (CMSN) and South (CMSS) groups of claims situated near Princeton, B.C. in the Similkameen Mining Division, British Columbia. The fieldwork included rock exposure mapping, rock geochemistry, BM - IV electromagnetic and self or spontaneous potential (SP) grid-controlled surveys.

The purpose of the fieldwork was to test the geophysical methods in delineating drill targets.

The programs examined a number of claim areas within the North and South groups which are known to exhibit interesting surface mineralization. The areas of interest seen to occur within CMSN on the Guy and Del 3 mineral claims are numerous and widespread. The areas of interest found to occur to date on CMSS or more specifically on the August (L.806) claim and South claims appear more localized.

Previous and current fieldwork data compiled or conducted by the writer suggests specific target areas that could undergo drilling, but with the exception of the CMSN (Miner Mountain) area to the north of the Town of Princeton, B.C. it is felt that all of the claim area should undergo further reconnaissance rock exposure mapping and a broad-spaced grid controlled magnetometer and VLF-EM surveys to aid in covered area mapping and possibly delineating potential mineralized areas.

INTRODUCTION

The current fieldwork programs were conducted during the period July 18 - August 21, 1996 and April 12 - 23, 1997 under the writer's supervision and at the request of the owners' of the mineral claims.

The current exploration program began by establishing three grids over areas of known mineralization (see Figure 3). These areas were surveyed using the BM-IV electromagnetic and self potential methods which often afford a quick reconnaissance tool for tracing oxidizing sulphide mineralization. The rock exposure mapping about the three areas reveals that outcrop frequency is low, although individual rock exposures may be quite large.

The claim area is large and is known to contain mineral occurrences with similarities to both past producers, Copper Mountain and Ingerbelle whose pits lie 8-9 km. from the property's southern claim boundary. The geological setting is also similar in that a Copper Mountain stock and Nicola volcanics occur on the property.

While the current programs did not uncover new mineralized zones they did reveal characteristics about the current geophysical techniques which will preclude their further use on the next program.

It is recommended that the claim groups undergo further exploration work, especially in the covered areas bordered by known mineralized zones.

The current exploration programs were conducted at the request of the owners of the mineral claims.

LOCATION AND ACCESS

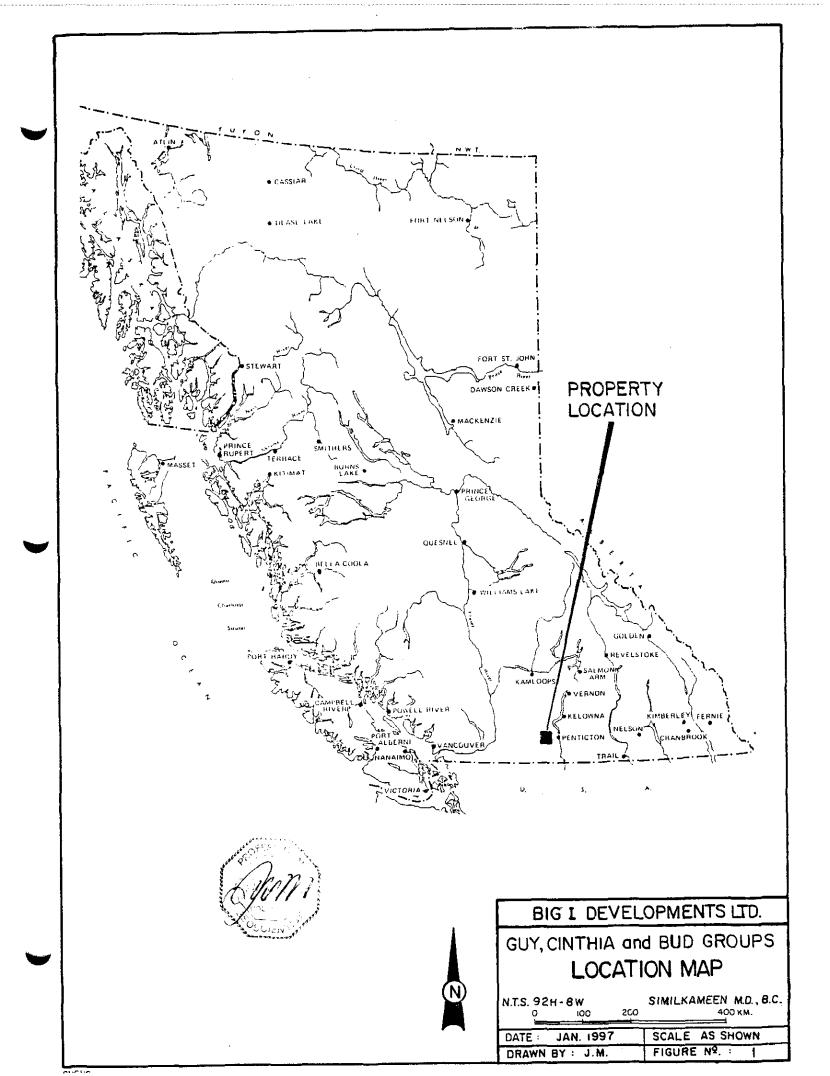
The general claim area may be located on NTS map sheet, 92H/8W at latitude 49° 25' north and longitude 120° 27' west. The property area occurs both to the north and south of the Town of Princeton, B.C., on the north slope of Miner Mountain and about August Lake, respectively and are situated in the Similkameen Mining Division, British Columbia.

Access to the north group is gained by traveling 3 km. north of Princeton on the good all weather Allison Creek road and then for 0.5 km. on the Iron Mountain road. The south group is accessed by traveling east of Princeton for 2.5 km. on Highway 3 and then south on the Willis Ranch road (passed the golf course) for 4 km. to August Lake.

TOPOGRAPHICAL AND PHYSICAL ENVIRONMENT

The CMSN and CMSS mineral claim groups lie within the Dry Interior Belt and more particularly cover low rounded mountainous terrain with patches of conifer covered low plateau or terraced benches. The elevation of the claim areas range from 600 metres to 1,070 metres. The easterly flowing Similkameen River valley is the most dominant feature in the area which generally forms the western boundary of the CMSS group. Glacial and/or fluvial glacial (possibly some ice-dammed lake deposits) cover much of the claim area which has been encountered from 30-60 metres in depth in some of the valley bottoms. The tree patches are often composed of Western Yellow pine (Ponderosa), Douglas fir (spruce) and Lodgepole pine. The stream valleys in the area often exhibit a north-south or east-west pattern and probably cover underlying faults.

Generally the area experiences less than 40 cm. of precipitation annually, of which 25-30% may occur as a snow equivalent. The winter weather generally lasts for less than four months, November - February. It is not uncommon for the property area to experience little or no snow and mild conditions throughout the winter.



PROPERTY AND OWNERSHIP

The lode mineral claims comprised of two claim groups known as the CMSN and CMSS are listed as follows:

Name	Tenure No.	<u>Units</u>	Anniversary Date							
Guy 1-10	345479-88	10	April 24							
Guy 11-14	345489-92	4	April 27							
Del 2	345477	16	April 28							
Del 3	345478	20	April 30							
Bud 1-8	349743-50	8	August 14							
Cinthia	345267	16	April 15							
Cinthia 1	345267	16	April 15							
August	344520	20	March 25							
August 1	344521	1	March 26							
August 2	344522	1	March 26							
August 3	345265	18	April 5							
South 1,3,5,7	335347-50	4	April 19							
South 9-20	335351-62	12	April 19							
Total		146 units	-							

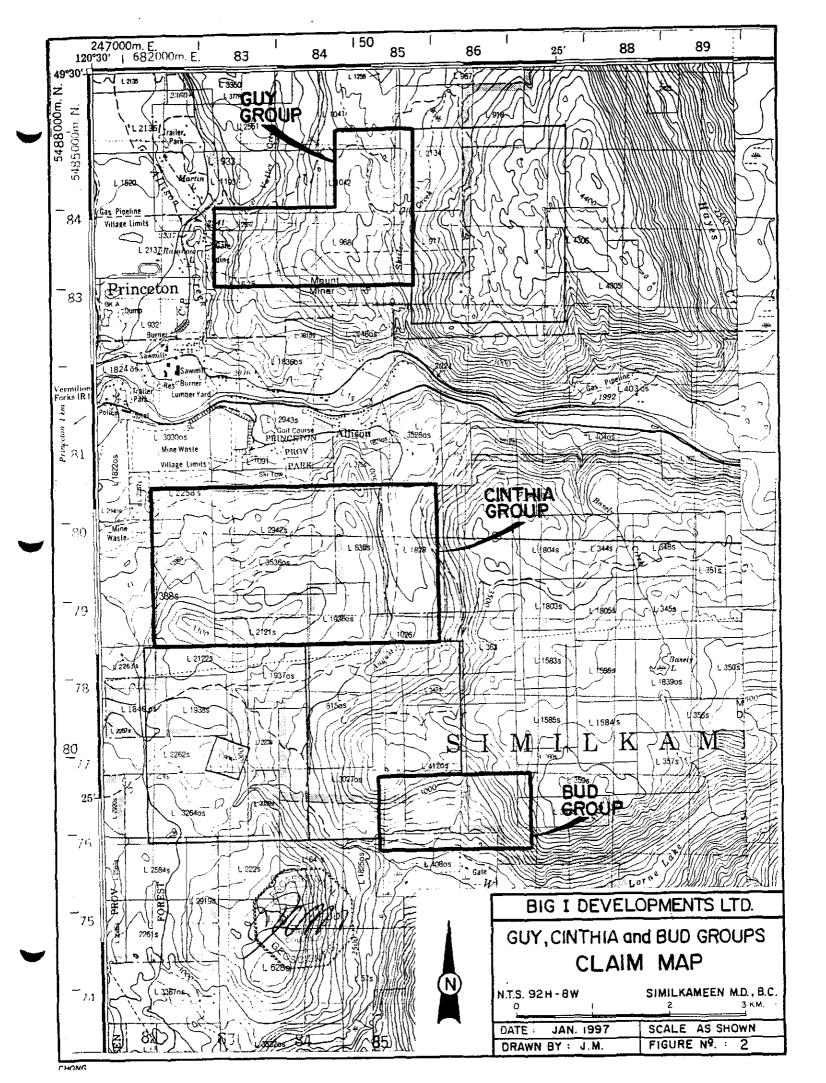
The claim area referred to in this report totals 3,650 hectares.

The above listed mineral claims are owned by G. DeLorme of Surrey, B.C., E. Becker of Vancouver, B.C., J.P. Loiselle of Burnaby and H. Fournier of Forest Grove, B.C.

HISTORY

The recorded mining history of the general area dates from the 1860's with the discovery of placer gold on the Tulameen and Similkameen Rivers. Lode gold was discovered in the Hedley area 32 km. due east of the property in 1894 and by 1904 the Nickel Plate Mine was producing for the first of three periods.

The large porphyry copper (gold and silver) deposits of the Copper Mountain area were first discovered in 1884, but not staked until 1892 and did not actually reach production until 1925 when it was brought on stream by the Granby Consolidated Mining, Smelting and Power Company. The mines here operated between 1925 and 1930 and 1937 and 1957 producing 31.5 million tons of ore grading better than 1% copper with recoverable amounts of gold and silver. The latest episode of this areas production began in 1972 by the Newmont Mining Corporation on the westside of the Similkameen River at the Ingerbelle volcanic skarn deposit. Newmont later consolidated the Copper Mountain and Ingerbelle operations which were active under the Princeton Mining Corporation until 1996 as the Similco Operation. The northern CMSN claim area has undergone exploration work intermittently since the 1950's.



REGIONAL GEOLOGY

The regional geological setting of the area has been described by many parties since 1910 (see References). A synopsis by the writer is included as follows to outline the underlying setting as a guide to the current exploration program.

The oldest and most abundant rocks in the general area are the Upper Triassic Nicola Group of volcanic flows and minor sediments. The Nicola Group is characterized by greenish (tight) andesites, augite diorite and tuffaceous lavas with isolated occurrences of limestone and minor argillites. The Nicola Group is an elongated belt of eugeosynclinal rocks which occur from near the 49th parallel and trend northward for over 240 kilometres. The width of the belt approaches 50 km. in places and is sometimes bound on its' east margin by older Paleozoic (often Permian) rocks and on its' west margin by rocks of the younger Coast Plutonic Complex.

The next oldest rocks in the general area are the Copper Mountain Intrusives which have been assigned a post Upper Triassic age and are characterized by intermediate composition alkaline intrusives which are seen to range in composition from syenite through gabbro and pyroxenite. This differentiated suite is intruded into the older Nicola rocks.

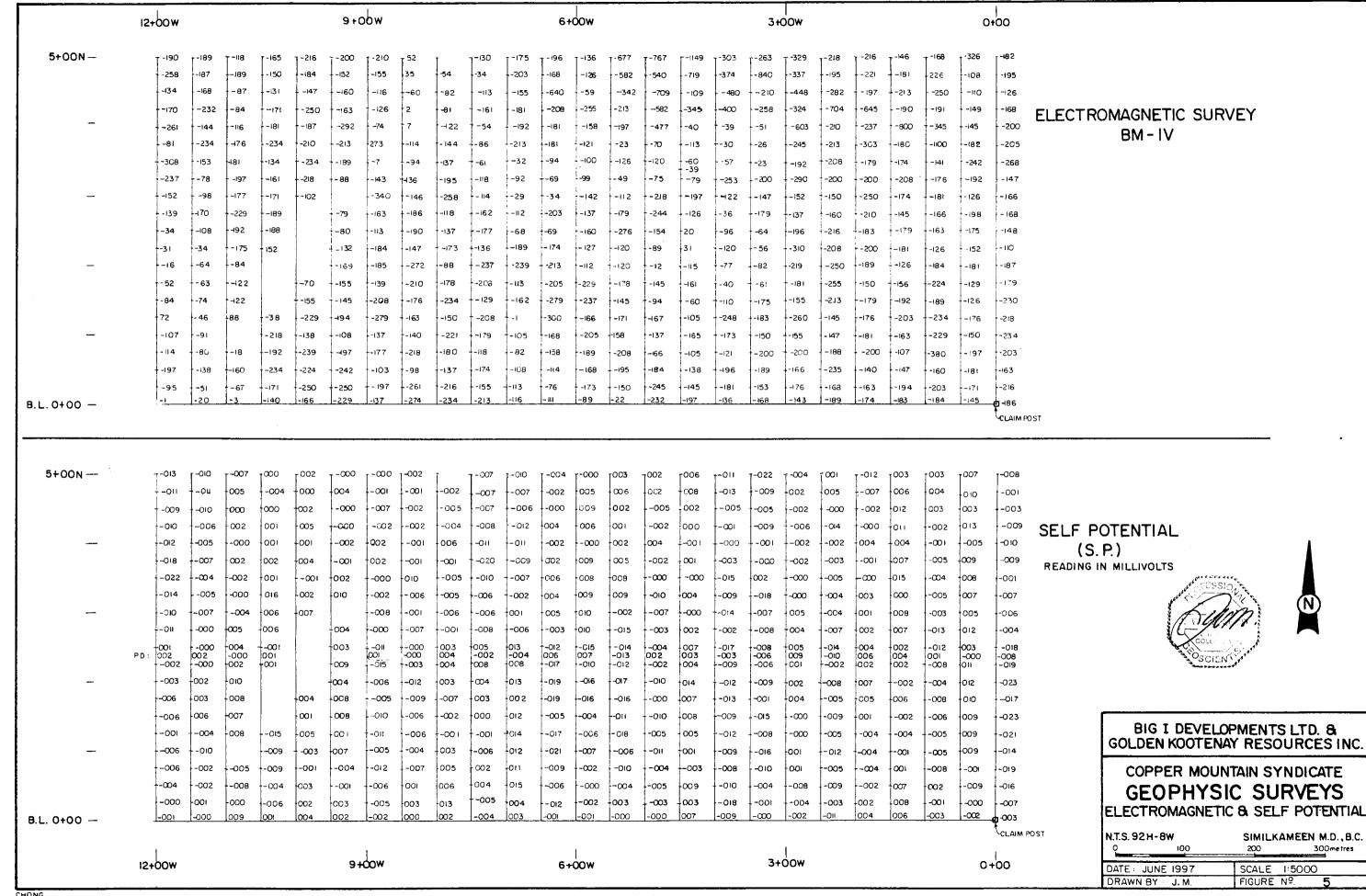
The next oldest rocks observed in the general area are the more acidic intrusives which are seen to range in composition from granite through quartz diorite, these units have been assigned an Upper Cretaceous or Lower Tertiary age.

The youngest rocks observed in the claim area are those of the Princeton Group, assigned a Tertiary age and comprised of a lower volcanic unit of andesite or basalt and an upper sedimentary unit composed of shale, sandstone, conglomerate and sometimes found to contain economic occurrences of coal. The lower Princeton Group volcanics has been observed in places to lie unconformably over portions on the Copper Mountain intrusions.

The Nicola belt is found in places to have been cut by small stocks and dykes of ages varying from late Triassic into the Tertiary.

The general area has also experienced widespread faulting which exhibit an east-west and northwesterly trend which in turn have sometimes been cut by younger northerly trending faults. For example in the Copper Mountain-Ingerbelle Mines the western boundary of the Copper Mountain Stock is truncated by the north trending, west dipping "Boundary Fault." East of the "Boundary Fault" faulting is generally east-west, northwesterly and northeasterly. These faults appear to effect ore control.

Within the major 'southeastern lobe of the Nicola Group some 32 km. east-southeast of Princeton, B.C. occurs the famous lode gold mines of the Hedley area. These deposits are found to occur within metamorphosed limestone units (skarns) of the Nicola Group near diorite-gabbro intrusive contacts.



LOCAL GEOLOGY

The fieldwork program being described in this report deals with three separate areas which have been assigned grid names (see Figure 3) and they are listed as follows:

- 1) The Guy Grid this area is situated north of Princeton, B.C. on the north and west facing slope of Miner Mountain. This area is seen to be underlain by the older Upper Triassic Nicola Group andesites and tuffs, as well as the Tertiary aged Princeton Group? which is evidenced as an occurrence of the lower volcanic, unit comprising a hornblende-feldspar porphyritic diorite and a coal unit, Sample no. "C Zone" (see Figure 4 and Appendix I), which may represent the upper Tertiary unit. Mineralization observed is mainly as chalcopyrite, pyrite, malachite, azurite? and minor bornite (see Sample number. No. "BNT"). The alteration observed was as epidote, calcite (dolomite), secondary potassium feldspar, secondary magnetite, and gypsum. The area exhibits both east-west and north-south faulting in the rock exposures and is suggestive of northwesterly trending fracture or fault zones by the attitude of some of the surface depressions observed in the vicinity of the Guy Grid.
- 2) The August Grid this area includes a portion of ground covered by L. 806 (the Knob Hill Lease or Crown Granted mineral claim). This area is underlain by Nicola Group andesites which are seen in places to contain chalcopyrite, chalcocite?, pyrite, some minor magnetite and the alteration products calcite and epidote. This area expresses fault directions of east-west and southwest-northeast.
- 3) The South Grid this area is underlain by a calc-alkaline suite of rocks which range in grain size from very fine grained volcanics to coarser grained intrusives. The rocks appear to often contain >10% quartz and generally a color index (CI) > 20 which leads the writer to think that this particular area is underlain by more acidic rocks than those at the first two grids. Mineralization observed in this zone was as pyrite, chalcopyrite, malachite and azurite. The alteration minerals observed were as widespread, low-moderate chlorite, calcite, minor epidote and 2° K-spar, very minor 2° magnetite and sericite? Faulting observed on this zone is generally southwest-northeast.

PRESENT WORK PROGRAM

The present fieldwork program was undertaken during two periods, July 18-August 21, 1996 and April 12-April 23, 1997. The work program consisted of grid installation, where some was flagged and blazed and some of the grid was picketed in range areas where cattle grazing was going on. In the grazing areas the pickets and hip-chain thread was removed at the request of the rancher as some of his cattle had experienced leg cuts from the thread. Rock exposure mapping was carried-out along and between the grid lines and somewhat beyond the grid areas. The Guy Grid underwent BM IV electromagnetic and self potential surveys at 50

metre line-spacing and 25 metre station intervals. The August Grid area underwent self potential surveying at 100 metre line-spacing and 25 metre station intervals. The South Grid used a station interval of 25 metres.

A total of 20 km. of grid were installed and station intervals were marked at 25 metres.

A total of 12.5 km. of BM IV electromagnetic surveying was conducted on the Guy Grid and a total of 18.1 km. of self potential surveying was performed on all three grids.

The instruments used were a BM IV electromagnetic (Beep-Map) and a Neville Crosby self potential instrument using a high impedance voltmeter.

The rock samples were bagged and taken to the Acme Analytical Laboratories Ltd. in Vancouver, B.C. where they underwent analyses for multi-elements by inductive coupled plasma (ICP) and fire assay for gold (see Appendix I).

CONCLUSIONS

The current fieldwork program illustrated that the BM IV electromagnetic method was not of much use except on the edge of rock exposure areas because of the depth of overburden. Likewise the self potential method did not prove of much value because of what the writer believes is a neutralization of the natural acidic environment over many oxidizing sulphide areas by the pervasive and widespread carbonate alteration as evidenced by a very high amount of calcite and/or dolomite present. From previous work in the area the writer feels that the magnetometer and multi-station VLF-EM are good primary tools for exploring in this area with follow-up using the induced polarization method. The need to use geophysics as an exploration method in this area is determined by the abundance and depth of overburden cover which is experienced in a great many places in the general area. For the same reasons conventional soil geochemistry is very difficult to interpret.

The extent or strength of these three mineralized zones and the large adjoining covered areas about them lead the writer to recommend an ongoing reconnaissance of the claim area.

RECOMMENDATIONS

A program of reconnaissance, grid controlled magnetometer and two-station VLF-EM surveys should be conducted over the property by advancing-out from these three main zones of mineralization. The line-spacing would be at 100 metres to anticipate not missing any smaller stocks or mineralized linear zones. Rock exposure mapping should be continued over and between any gridded areas. In the event anomalous patterns develop they could undergo selective induced polarization surveys.

COST ESTIMATE

Geologist and field supervision for 3 months	\$ 27,000
Prospector for 2 months	12,000
Grid installation	12,000
Magnetometer and VLF-EM surveys	12,000
Camp and board	26,000
Transportation rentals and fuel	9,000
Instrument rentals	2,500
Analyses and assays	5,000
Permits, fees, filings, insurance, etc.	5,000
Reports and maps	5,000
Contingency	12,000

Respectfully submitted

Total

127,500

James W. McLeod, P. Geo.

STATEMENT OF COSTS

Geology and supervision, J. McLeod, 10 days @ \$300/day	\$ 3,000
Grid Installations, J. Graffin and H. Fournier, 6days @ \$150/day	1,800
BM IV survey, J.P. Loiselle, 4 days @ \$200/day	800
Self Potential surveys, J. Graffin and G. DeLorme, 6days @ \$200/day	2,400
Instrument rental and supplies	800
Room and Board, 42 mandays @ \$80/day	3,360
Equipment and supplies	200
Transportation, two 4X4, for 26 days @ \$40/dayX2	2,080
Analyses and assays	280
Reports and maps	1,230
TOTAL	\$15,950

CERTIFICATE

I, James W. McLeod, of the Municipality of Delta, Province of British Columbia, hereby certify as follows:

- 1) I am a Consulting Geologist with an office at #203 1318 56th Street, Delta, B.C., V4L 2A4.
- 2) I am a Professional Geoscientist registered in the Province of British Columbia and a Fellow of the Geological Association of Canada.
- 3) I graduated with a degree of Bachelor of Science, Major Geology, from the University of British Columbia in 1969.
- 4) I have practiced my profession since 1969.
- 5) I am the President and CEO of both Big I Developments Ltd. and Golden Kootenay Resources Inc.
- 6) The above report is based on personal field experience gained by working on the properties at various times during the past 29 years.

DATED at Delta, Province of British Columbia this 20th day of June, 1997.

James W. McLeod, P.Geo. Consulting Geologist

REFERENCES

Camsell, Charles, 1910. Memoir No. 2: Geology, and Ore Deposits of The Hedley Mining District, British Columbia. Geological Survey Branch, Canada. Department of Mines.

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APPENDIX I Geochemical Analyses and Assays



Omega Services Inc. PROJECT CMS(N) FILE # 97-2460

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SAMPLE#	Мо		Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	\$b	Bi	٧	Ca	P	La	Cr	Mg	Ba	Ti •⁄		Αl	Na	K	W	_
	blow	ppm	ppm	ppm	ppm	ppm	ppm	ppm	7.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	-	ppm	ppm	*	ppm		ppm				ppm	ppb
SO 1	3	1361	<3	21	<.3	5	6	545	1.95	<2	8	<2	2	192	<.2	<2	2	82	6.66	.165	10	5	1.09	34	-01	3 1.	15	.03	.02	<2	28
SO 2	1	222	86	216	1.5	14	21	1674	9.48	4	<5	<2	2	35	.4	3	<2	226	.32	.177	4	19	3.63	29	.02	<33.	02	.03	.03	<2	16
BL	<1	1662	<3	110	<.3	5	16	1100	3.74	<2	<5	<2	<2	134	.3	<2	2	69	2.96	.163	8	6	1.64	76	.15	4 2.	05	.03	.07	<2	2
BNT	<1	1328	<3	70	1.3	5	18	1272	4.52	<2	13	<2	2	119	.4	<2	<2	101	3.73	.148	6	5	1.84	80	.16	4 2.	12	.03	.11	<2	<1
STUMP	<1	157	<3	117	<.3	4	16	1149	3.48	<2	<5	<2	<2	143	.2	<2	<2	64	2.80	.164	9	5	1.70	48	.16	5 2.	01	.03	.05	<5	<1
C-ZONE	1	23	12	67	<.3	4	2	99	.70	<2	<5	<2	17	91	<.2	3	<2	17	.19	-015	31	7	.25	238	.07	17 1.	42	.01	.16	<2	5
N-ZONE	1	1139	<3	122	1.6	14	26	1257	6.01	<2	5	<2	4	37	.8	<2	<2	209	1.93	- 136	11	12	2.76	239	-27	<3 2.	.56	.10	.57	<2	27
RE N-ZONE	1	1109	<3	119	1.6	14	26	1230	5.91	<2	<5	<2	4	36	.6	<2	3	206	1.90	.134	12	12	2.74	233	.26	<3 2.	54	.10	.55	<2	38
F-W RUSTY	1	18	<3	61	.8	2	5	747	2.61	<2	<5	<2	5	77	<.2	<2	<2	18	3.07	.112	15	3	.81	532	<.01	3 1.	.32	.04	.22	<2	1
4+25W 4+75N	1	511	<3	136	.7	35	22	2061	5.40	<2	< 5	<2	2	90	.5	<2	<2	236	3.11	.141	3	48	3.98	341	.21	<3 3	.62	.05	.03	<2	2
0+00 5+00W	1	363	<3	68	<.3	13	20	1178	4.63	6	<5	<2	<2	271	.6	5	<2	173	6.17	.134	7	21	2.07	62	- 18	9 2	28	.04	.01	<2	2
STANDARD C3/AU-R	26	68	32	157	5.7	36	11	721	3.38	53	15	<2	21	29	20.6	13	18	83	.61	.092	18	170	.67	144	.11	19 1.	.86	.04	.14	13	471

Sample type: ROCK. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

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GEOCHEMICAL ANALYSIS CERTIFICATE

J.P. Loiselle File # 96-1323

Box 1003 Stn A, Vancouver BC V6C 2P1 Submitted by: J.P. LOISELLE

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	Mo 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 Tl Hg Au** ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm
Bog 03 Bog 04	3 37568 99 185 68.0 14 12 755 4.32 283 <5 <2 <2 19 3.8 21 26 48 2.12<.001 1 8 .06 59<.01 4 .07 .01 .02 6 <5 3 .006 2 14674 143 560 49.0 9 6 435 3.97 88 7 <2 2 4 10.7 19 7 45 .49 .021 1 15 .27 39<.01 5 .57<.01 .07 3 <5 8 .003
RE Bog 04	2 14836 152 559 49.1 6 5 441 3.96 83 <5 <2 <2 5 10.1 17 16 46 .48 .019 <1 15 .27 35<.01 <3 .58<.01 .06 5 <5 9 .003

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 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 AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

J.P. Loiselle File # 96-1309 Box 1003 Stn A, Vancouver BC V6C 2P1

SAMPLE#		Cu						Mn ppm												P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	ppm B	Al %	Na %	K %	W Au** ppm oz/t	
01 02 RE 02	1 1	7900 14529 13808	30	73	99.0 55.7 53.3	5	<1	577 94 113	2.57	12	<5	<2	<2	2	.7	4	12	9	1.03<.00 .05 .00	07	<1	17	.04	23	<.01	<3	.12	<.01	.04	14 .011 5 .042 2 .051	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 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 AND AL. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE. - SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: APR 10 1996 DATE REPORT MAILED: Hm 17/96

.....D. TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX IISelf Potential - Field Data

