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**DIAMOND DRILLING REPORT
on the
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WOODS CREEK AREA

**KAMLOOPS MINING DIVISION
NTS 92I/11E**

Latitude 50° 37'

Longitude 121° 10'

For

**HIGHLAND VALLEY COPPER
BOX 1500
LOGAN LAKE, BC
V0K 1W0**

Report by

**LORNE A. BOND, P.GEO.
661 GARNET ROAD,
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AND

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September 14th, 2004

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1.0 INTRODUCTION

During the period May-June, 2004, a program of trail building, drill site preparation and diamond drilling was carried out by Highland Valley Copper on mineral claims optioned from Getty Copper Inc. The mineral claims on which the diamond drilling program was carried out are situated approximately 17 kilometres northwest of the Highland Valley Copper mill site. Access to the work area is from the Woods Creek forest service road which proceeds north from Hwy 97C between the minesite and Ashcroft. An extensive network of subsidiary logging roads and trails provided further access. The elevations on the property increase rapidly going north with most areas being between 1400 and 1800 metres above sea level. Tree cover consists mainly of lodgepole pine with increasing stands of spruce and fir at higher elevations. The area has been extensively logged with a good residual network of roads and trails to expedite access for mineral exploration.

Figure 1 shows the general location of the Getty and Highland Valley Copper properties and Figure 2 shows the position of the drill holes relative to the claim boundaries.

The objective of the drilling program was to test for large tonnage, porphyry type, copper sulfide mineralization within the program area. The locations of the diamond drill holes were determined from analysis of earlier induced polarization geophysical surveys and property geology. Five NQ diamond drill holes were completed for a total of 1046 metres of drilling. The work described in this technical report was applied to the Getty Copper mineral claims under Statement of Work No. 3212819, filed June 30th, 2004.

2.0 PROJECT DESCRIPTION AND FIELD WORK

Based on the analysis of induced polarization results from previous Getty Copper geophysical surveys, a number of locations were selected to test areas of higher IP response.

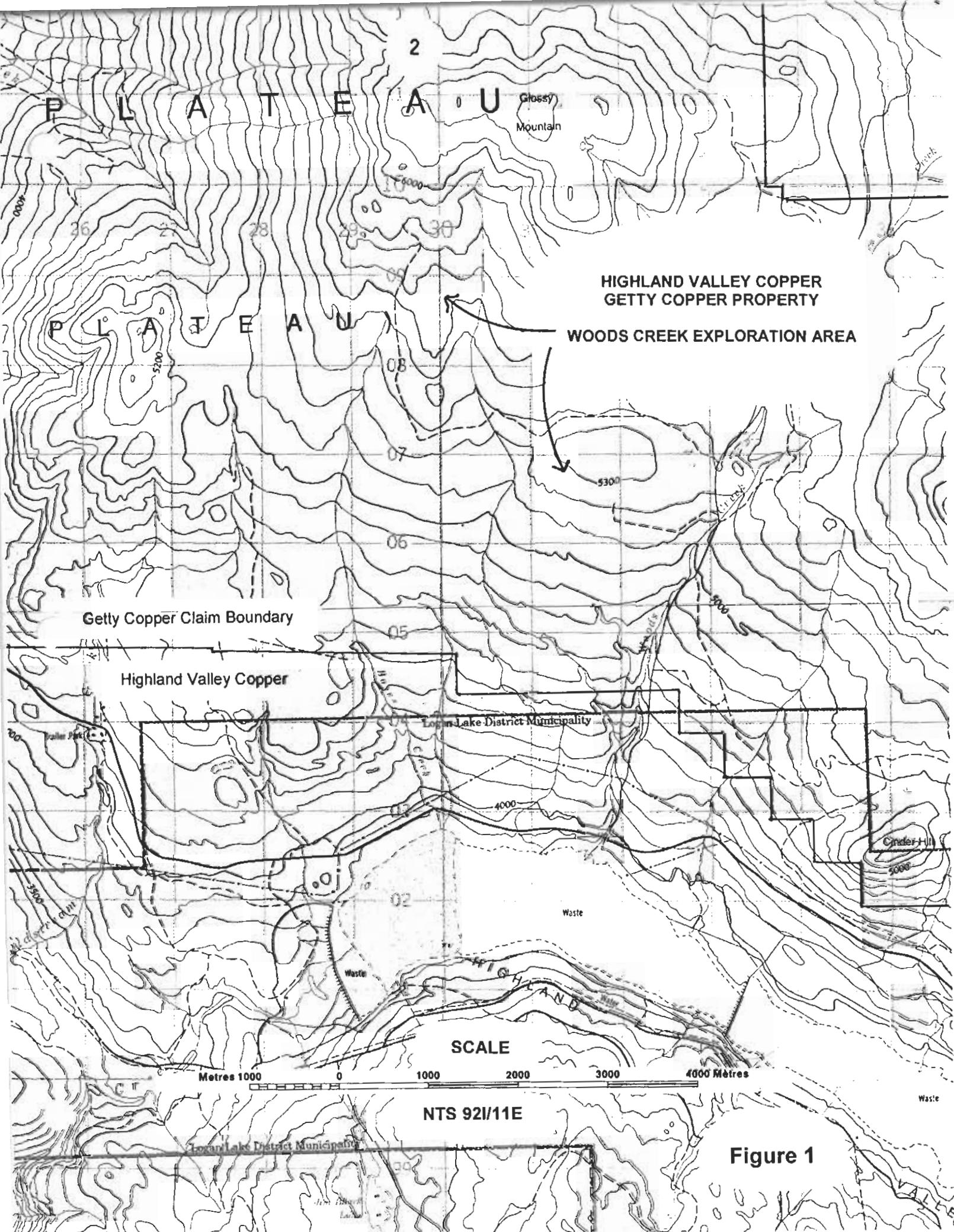


Figure 1

The drill hole sites were located according to stations on the grid lines established for the IP surveys. These locations were then surveyed using global positioning equipment to obtain UTM northing and eastings on the NAD 83 datum. Drill hole numbers and coordinates are as follows:

<u>Drill Hole No.</u>	<u>Northing</u>	<u>Easting</u>
G2004-01	5610200	630450
G2004-02	5608465	631200
G2004-03	5609058	629715
G2004-04	5607010	632060
G2004-04A	5607010	632060

The proposed drill sites were in forested areas somewhat removed from existing roads and trails. Cinder Mountain Contracting Ltd. of Lower Nicola, BC, was retained to construct the exploration access trails, log and remove marketable timber, and prepare the drill pads. Access trail construction commenced on May 6th, 2004, and continued to the end of May. A total of 2.4 kilometres of access trail, 3.5 metres wide, was constructed, 1.6 kilometres of which consisted of establishing trails across cut blocks and 0.8 kilometre requiring logging operations, skidding logs, and trail preparation. Four drill sites, each approximately 20m by 30m in dimensions, were also logged and prepared. This work required the use of two fallers, a skidder, a wheeled loader, and a tracked excavator. Logs were skidded to landings along existing roads for later pick-up.

3.0 DIAMOND DRILLING PROGRAM

A Boyles 56 skid mounted diamond drill operated by Leclerc Drilling Ltd. of Cranbrook, BC, was mobilized to the Woods Creek exploration area on May 11th, 2004. Drilling commenced on May 13th and continued until June 5th, 2004, when the drilling equipment was removed from the area. Drilling operations were carried out utilizing two 10 hour shifts per day with the crews residing in Logan Lake. A total of 1046 metres of drilling was completed in five holes.

Drill holes completed were;

DDH	Length(m)	Dip(°)	Az(°)
G2004-01	251.76	-90	
G2004-02	244.75	-60	225
G2004-03	251.76	-60	135
G2004-04	97.54	-60	270
G2004-04A	200.25	-90	

The initial hole drilled was G2004-04, collared on May 13th, 2004. This hole encountered severely faulted ground and could not be completed to designed depth. Consequently a vertical hole (G2004-04A) was collared on the same site and completed to a depth of 200.25 metres. Subsequent holes drilled, in chronological order, were G2004-03, G2004-02, and G2004-01. Drill holes completed were at increasingly higher elevations and were accessed as weather conditions permitted. All core was delivered to the Highland Valley Copper mine site for analysis and sampling.

At the mine site, all core was photographed and logged in detail for geology, mineralogy, recovery and some geotechnical characteristics. All logging information was entered in a computer database and printed copies of the logs were generated. Copies of these geological logs are included in Appendix A of this report. Once logging of the core was completed, all core identified as having sulfide mineralization, or other features of interest, was split at the mine site. Half the core was returned to the labelled core boxes for reference and follow-up. The other half was bagged for chemical analysis. All drill core from this program is stored at the Highland Valley Copper mine site.

4.0 ANALYTICAL PROCEDURES

All core with sulfide content or notable alteration features was split at the Highland Valley Copper logging facility. Half the core was returned to the labelled core boxes for storage. The remaining split core was bagged in three metre sample lengths of approximately 7 kg each and shipped to the TeckCominco Global Discovery Laboratory in Vancouver for analysis.

At the lab, the sample core was dried, then coarse crushed to minus 6mm and fine crushed to minus 2mm size. The samples were then split in a Jones Riffler to produce a subsample of 250-300g. This split fraction was then run in a Rock Labs ring and puck mill until a final product was produced with 95% minus 150 mesh (100 microns). The reject was stored and the pulp archived.

For the ICP analysis, a 5g sample of the pulp was digested in aqua regia on a sand bath at 95 C for 3 hours, shaking every 20-30 minutes. The sample was then diluted and mixed on a vortex. The resulting analyte was then analyzed on a I.C.P. unit to produce a 28 multi-element package. Standard quality control procedures were followed.

For the gold analysis, each 5g sample was roasted for 1 hour at 625 C. The sample was then digested in aqua regia followed by solvent extraction of the gold in 2, 6-Dimethyl-4-heptanone (DIBK). This sample was then analyzed by Atomic Absorption. For quality control purposes, every 25 samples included 3 sample repeats and 2 in-house and/or commercial standards.

The results were reported to Highland Valley Copper. Analytical values from the lab for all five drill holes in this program are included in Appendix B of this report.

5.0 DISCUSSION OF DRILLING RESULTS AND CONCLUSIONS

Five NQ diamond drill holes were completed at four locations in this program. The drilling project area is located in the northwest portion of the Guichon Batholith. Triassic age intrusive rocks of the Border Phase unit of the Guichon Batholith underlie much of this area (McMillan, 1985). To the north and east overlapping Eocene volcanics and sediments of the Kamloops Group are exposed. To the west and northwest, late Triassic Nicola Group volcanics outcrop in a northerly trending belt (Monger, 1989). The drilling program intersected all of these rock types or their intensely altered equivalents.

All the holes were drilled to test induced polarization chargeability anomalies obtained in previous exploration programs. The objective of the drilling program was to test for large tonnage, porphyry type sulfide mineralization, ideally hosted by batholithic rocks. DDH G2004-01 (N5610200-E630450) was the most northerly hole in the program and was located on the west flank of Glossie Mountain. The drill hole intersected a thick sequence of interlayered Tertiary volcanics and sediments. The volcanics are grey-black to oxidized red brown andesite-basalt flows with some vesicular flow top features. The sediments appear to be primarily of volcanic derivation, consisting largely of thin-bedded sediments, some carbonaceous or coaly seams, as well as ash and tuff layers. Underlying the Tertiary package were altered Nicola Volcanics which become increasingly metasomatized and silicified with depth. Below 228m, the core displayed intense hornfels metasomatism and silicification. The Nicola section contains significant pyrite sulfide mineralization starting at 1-2% pyrite in higher intervals increasing to 3-5% in the intensely altered section below 228m. The IP response in the vicinity of this drill hole could be attributed both to the pyrite content in altered Nicola rocks and/or to some of the layered clay-rich Tertiary sediments.

DDH G2004-02 (N5608465- E631200) was sited in the southeast section of the project area. This hole encountered a more typical assemblage for this part of the batholith. Rocks consisted of fine-grained grey-green diorites of the Border Phase intermixed with blocks of dark grey-green massive Nicola Volcanics. Both diorites and volcanics showed

some degree of propylitic alteration. The Nicola rocks would represent pieces of a roof pendant stoped out by intruding batholith rocks. These rocks were moderately to strongly magnetic. The most unique aspect of this hole is the development of an intense propylitic alteration assemblage in the 103-131m interval within Nicola rocks. This zone is characterized by strong epidote, calcite, chlorite, pyrite, and especially specularite hematite mineralization. The high Fe assays for this interval reflect the specularite content. This intensely propylitized zone with strong specularite and pyrite mineralization is associated with and appears conformable with flow top features in the volcanics. A short interval of similar material occurs from 201-210m. The core contained pyritic sulfides over the entire length, averaging better than 2%, and reaching up to 5% pyrite over extended intervals which could explain the IP chargeability response here.

DDH G2004-03 (N5609058-E629715) intersected intensely altered rock with strong hornfels metasomatism. Much of the rock is silicified consisting mainly of fine-grained grey quartz and brown biotite. The cored rock usually displays a foliation defined by the brown biotite laminae accompanied by significant pyritic sulfide mineralization. The sulfides appear to be almost exclusively pyrite and this is reflected in the analytical results. The rocks intersected in this hole are considered to be intensely metasomatized and silicified Nicola volcaniclastics or sediments as well as more massive volcanics. Pyrite content reaches 10% over significant intervals in this hole. This drill hole is located on the western side of the project area. The rocks intersected in this hole were the most intensely metasomatized and contained the highest percentage of sulfide mineralization of all the holes in the program, suggesting an alteration and mineralization vector of increasing intensity to the west.

DDH G2004-04 and G2004-04A (N5607010-E632060) were drilled at the same location. The initial hole was lost at 97.54m drilling to the west at -60 degrees and G2004-04A was then drilled vertically at the same site to a depth of 200.25m. The holes intersected Nicola volcanics and metasediments, all displaying varying degrees of hornfels metasomatism. The rocks are predominantly grey-green plagioclase-phyric andesitic

volcanics. Altered sections contain chlorite-magnetite-biotite rich patches and clots, in some areas displaying a crude foliation with the long axes aligned. The rocks are very magnetic. Sulfides as pyrite can range up to 5%. Some intervals in G2004-04 consist of an intensely altered and foliated rock with an almost “gneissic” fabric in places. It has a banded appearance with dark green chlorite rich bands or seams separated by light colored quartz or plagioclase rich material and may be a recrystallized sedimentary unit. These intervals have strong pyrite mineralization up to and exceeding 5%. The rocks intersected in these two drill holes are part of a large altered Nicola roof pendant similar to rocks mapped immediately to the south of this area by Oliver (2001). The IP response here can probably be credited to the sulfide and/or magnetite content.

The drill holes in this program were drilled in an area of mainly Nicola volcanic and sedimentary rocks that have undergone varying degrees of hornfels metasomatism. Significant intrusive rocks belonging to the Guichon Border Phase were only noted in DDH G2004-02. DDH G2004-01, drilled to the north, encountered a thick sequence of Eocene sediments and volcanics overlying altered and silicified Nicola rocks. All holes contained varying amounts of pyrite mineralization. As well, drill holes G2004-02, -04, and -04A cut strongly magnetic rocks. The induced polarization chargeability anomalies, which the drilling program was designed to test, can largely be attributed to the ubiquitous and plentiful pyrite mineralization. Strong magnetite mineralization in some holes and the presence of flat-lying carbonaceous and clay-rich Tertiary sediments in DDH G2004-01 may have contributed to the IP effect in those areas.

However, the intense silicification of rocks on the west side of the project area, as well as pyrite sulfide content of up to 10% in DDH G2004-03, merit further attention. These results suggest that the source of the silification and sulfide mineralization may be located to the west of DDH G2004-03 and -01. Geophysical surveys, specifically induced polarization, should be extended to the west of the current project area to test for and close off any geophysical anomalies. Based on these results, further drilling programs can be designed to test for the source of the alteration and mineralization noted in the current drill holes.

6.0 STATEMENT OF COSTS

Highland Valley Copper
Getty Copper Option
Diamond Drilling Program

Site Preparation, logging, access trail construction	
Cinder Mountain Contracting Ltd.	\$ 33,682
Diamond Drilling - 1046 metres	
Leclerc Drilling Ltd.	\$ 114,275
Contract Geologist - Lorne Bond	
Program supervision, drill core logging, report preparation	\$ 7,767
TOTAL	<u>\$ 155,724</u>

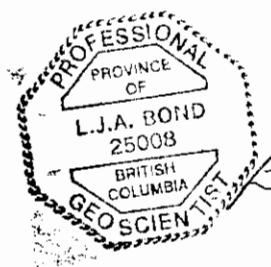
7.0

STATEMENT OF QUALIFICATIONS - Lorne Allan Bond

I, Lorne Allan Bond, of the city of Kamloops, British Columbia, do hereby certify that

- 1/ I am a graduate of Loyola College (Concordia University) with a B.Sc. (1967) in Geotechnical Sciences.
- 2/ I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 3/ I have practiced my profession continuously since 1967 while employed with Sherritt Gordon Mines Ltd., Cominco Ltd., Afton Operating Corporation, Highland Valley Copper and as an independent practitioner.
- 4/ During the period May - June, 2004, I supervised site clearing and trail building operations and logged diamond drill core from the program.
- 5/ I have no material interest in the property under consideration on this report.

Lorne A. Bond, P.Geo.
Kamloops, BC



Lorne Bond

7.0

STATEMENT OF QUALIFICATIONS - Ron Graden

I, Ronald Wayne Graden , of the city of Kamloops, British Columbia, do hereby certify that

- 1/ I am a graduate of the University of Alberta with a B.Sc. (1990) specializing in Geology.
- 2/ I am a graduate of the University of Alberta with a B.Sc. (1994) in Mining Engineering.
- 3/ I am a member of the Association of Professional Engineers & Geoscientists of the Province of British Columbia.
- 4/ I have practiced my professions continuously since 1994 and sporadically from (1991-1994), while employed with Equity Silver Mines Ltd., Syncrude Canada, Smoky River Coal Ltd., Gibraltar Mines Ltd., and Highland Valley Copper.
- 5/ During the period April - June 2004, I have supervised all exploration activities including planning and picking up DDH; supervised contractors, monitored and updated claims.
- 6/ I have no material interest in the property under consideration in this report.

Ron Graden, P.Eng
Kamloops, BC

8.0 REFERENCES

- McMillan, W.J., 1985. Geology and Ore Deposits of the Highland Valley Camp. *In* Mineral Deposits Division Field Guide and Reference Manual Series, Number 1. Edited by A.J. Sinclair, Geological Association of Canada, 121 pp.
- Monger, J.W.H., 1989. Geology of the Hope and Ashcroft Map Areas, British Columbia – Maps 41-1989 and 42-1989. Geological Survey of Canada. Energy, Mines and Resources Canada.
- Oliver, Jim, 2001. Report on the Geology of the North Valley and Glossie Mineral Occurrences, Getty Copper's Highland Valley Project, 35pp. Assessment Report No. 26763.

9.0 APPENDIX A

DIAMOND DRILL HOLE: G200401

Highland Valley Copper

14:34:32 09-17-2004

Hole: G200401
Page: 1

Geological Log

Section:
 X (Easting, Dep.): 630450.000
 Y (Northing, Lat.): 45610200.000
 Z (Elevation): 0.000
 Date Collared: May 31, 2004
 Date Completed: June 5, 2004
 Date Logged: June 21, 2004

Core Size: NQ
 Length: 251.760
 Collar Azimuth: 0.000
 Collar Dip: -90.000
 OB Depth: 6.090
 Logged By: L. Bond

Remarks: Collar Coor. UTM-NAD 83. DDH drilled on the Getty Copper option to test an IP anomaly in the North Valley area.

From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
0	6.09	CAS	Casing through overburden and broken rock.										
6.09	43.4	TERV	Tertiary Volcanics - f.g. dk grey-black andesite-basalt flows w/ fine amygdalites to 20m then into vesicular flow-top features including weathered and oxidized tops(yellow brown limonitic weathering).										
43.4	51	TERS	Tertiary Sediments - thin bedded sediments; some carbonaceous or coaly layers as well as tuffs and ash layers (volcaniclastics).										
51	70.2	TERV	Tertiary Volcanics- f.g. grey-black andesite-basalt flows w/ tiny amygdalites(1-2mm).										
70.2	136.7	TERS	Tertiary Sediments package - appears largely of volcanic derivation; some finely laminated water lain sediments w/ occ. carbonaceous or coaly seams; some ash layers as well. Several breccia sections were cut with angular fragments of mixed lithologies in the pebble to cobble size range; Both clast supported and matrix supported breccias were intersected. Core recovery in all Tertiary drill core was quite high.										
136.7	191	NVOL	Nicola Volcanics-f.g grey green volcanics; silicified with wk to mod. hornfels metasomatism; some epidote on fracture surfaces; areas with some sec. albite(albitization). 136.7 to 138 has breccia developed on old surface w/ Nicola fragments in softer green matrix. Rock is intensely jointed and broken up with lower recoveries. Segments of faulted and bx'ed zones from 175-177m at 45-50 deg. to C.A. Overall sulfide content in the 1-2% range as diss. pyrite. Sct. minor white qz veins occur.	136.70	141.00	0	0	0	0.000	42	0.000	0	3
				141.00	144.00	0	0	0	0.000	42	0.000	0	3
				144.00	147.00	0	0	0	0.000	46	9.000	0	3
				147.00	150.00	0	0	0	0.000	50	0.000	0	4
				150.00	153.00	0	0	0	0.000	73	0.000	0	4
				153.00	156.00	0	0	0	0.000	55	0.000	0	4

DIAMOND DRILL HOLE: G200401

Highland Valley Copper

14:34:34 09-17-2004

Geological Log

Hole: G200401
Page: 2

From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
191	228	NVOL	Hornfelsed Nicola Volcanics; gradual increase in degree of hornfels metasomatism; rock is now usually a light to med. grey silicified alt'd f.g. volcanic. Sulfide content has increased to the 1-3% range. Brown biotite is present sporadically in this interval and some dark biotite rich clots were noted. Rock is intensely jointed and broken up w/ 10cm fault w/ gouge at 50 deg. to C.A. at 212.2m.	156.00	159.00	0	0	0	0.000	34	0.000	0	4
				159.00	162.00	0	0	0	0.000	18	0.000	0	4
				162.00	165.00	0	0	0	0.000	29	0.000	0	4
				165.00	168.00	0	0	0	0.000	42	0.000	0	4
				168.00	171.00	0	0	0	0.000	48	0.000	0	4
				171.00	174.00	0	0	0	0.000	47	10.000	0	4
				174.00	177.00	0	0	0	0.000	63	0.000	0	4
				177.00	180.00	0	0	0	0.000	48	15.000	0	4
				180.00	183.00	0	0	0	0.000	79	10.000	0	4
228	251.76	NVOL	Hornfelsed Nicola Volcanics w/ intense hornfels metasomatism and silicification. Upper contact is strong fault from 228-228.6m at 70 deg. to C.A. w/ some gouge and crushed rock; below this fault is light gy highly silicified rock w/ increased sulfide content averaging 3-5% w/ more stringers and veinlets as well as disseminations; also noted are biotite rich ragged clots w/ sulfides(pyrite). Narrow hard black siliceous veinlets w/ some pyrite are occ. noted (poss. tourmaline?). Rock is generally int. jointed and broken but especially so from 240m to the end of the hole where the core is cut by numerous shears including a 10cm shearw/gouge at 60 deg. to C.A. Some wk thin albitized envelopes developed on some fractures.	183.00	186.00	0	0	0	0.000	57	11.000	0	4
				186.00	189.00	0	0	0	0.000	65	16.000	0	4
				189.00	192.00	0	0	0	0.000	83	5.000	0	4
				192.00	195.00	0	0	0	0.000	66	0.000	0	4
				195.00	198.00	0	0	0	0.000	80	6.000	0	4
				198.00	201.00	0	0	0	0.000	65	0.000	0	4
				201.00	204.00	0	0	0	0.000	35	10.000	0	4
				204.00	207.00	0	0	0	0.000	88	8.000	0	4
				207.00	210.00	0	0	0	0.000	81	33.000	0	4
				210.00	213.00	0	0	0	0.000	59	6.000	0	4
				213.00	216.00	0	0	0	0.000	93	11.000	0	4
				216.00	219.00	0	0	0	0.000	99	7.000	0	4
				219.00	222.00	0	0	0	0.000	87	8.000	0	4
				222.00	225.00	0	0	0	0.000	83	14.000	0	4
				225.00	228.00	0	0	0	0.000	88	13.000	0	4
				228.00	231.00	0	0	0	0.000	75	0.000	0	4
				231.00	234.00	0	0	0	0.000	91	7.000	0	3
				234.00	237.00	0	0	0	0.000	98	7.000	0	4
				237.00	240.00	0	0	0	0.000	62	0.000	0	4
				240.00	243.00	0	0	0	0.000	92	0.000	0	3
				243.00	246.00	0	0	0	0.000	78	0.000	0	4
				246.00	249.00	0	0	0	0.000	72	0.000	0	3
				249.00	251.76	0	0	0	0.000	0	0.000	0	3

End of Hole at 251.76m

DIAMOND DRILL HOLE: G200402

Highland Valley Copper

09:05:46 09-14-2004

Hole: G200402
Page: 1

Geological Log

Section:
 X (Easting, Dep.): 631200.000
 Y (Northing, Lat.): 45608465.000
 Z (Elevation): 0.000
 Date Collared: May 27, 2004
 Date Completed: May 31, 2004
 Date Logged: June 18, 2004

Core Size: NQ
 Length: 244.750
 Collar Azimuth: 225.000
 Collar Dip: -60.000
 OB Depth: 12.190
 Logged By: L. Bond

Remarks: Collar Coor. UTM-NAD 83. DDH drilled on the Getty Copper option to test an IP anomaly in the North Valley area.

DOWN HOLE SURVEYS:	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
	240.000	225.000	-58.000	0.000	0.000	0.000	0.000	0.000	0.000

From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
0	12.19	CAS	Casing through overburden and broken rock.										
12.19	26.2	DIOR	F.g. grey-green diorite; mostly plag. and mafics (amphibole and biotite) w/ some acc. magnetite; plag. has white-cream color and mafics look slightly alt'd. Section contains 15% Nicola volcanic inclusions w/ sharp cts w/ diorite. Weak propylitic alteration is present as epidote and some narrow bleaching along fractures (albite). Sulfide content is <1% as pyrite.	12.19	15.00	0	0	0	0.000	69	5.000	0	5
				15.00	18.00	0	0	0	0.000	90	14.000	0	5
				18.00	21.00	0	0	0	0.000	99	32.000	0	5
				21.00	24.00	0	0	0	0.000	99	42.000	0	5
				24.00	27.00	0	0	0	0.000	99	34.000	0	5
				27.00	30.00	0	0	0	0.000	97	58.000	0	5
				30.00	33.00	0	0	0	0.000	99	57.000	0	5
				33.00	36.00	0	0	0	0.000	99	58.000	0	5
				36.00	39.00	0	0	0	0.000	97	79.000	0	5
				39.00	42.00	0	0	0	0.000	99	84.000	0	4
				42.00	45.00	0	0	0	0.000	96	73.000	0	5
				45.00	48.00	0	0	0	0.000	94	71.000	0	5
26.2	52	NVOL	V.f.g.-f.g. dk grey-green massive Nicola volcanics; gen. equigranular w/ only local plag. phenos; some magnetite; only trace sulfides. Rock has coarse jt'ing and sign. calcite on jts and in veinlets. Lower ct w/ diorite is at 25 deg. to C.A. and contact area has intense epidote-calcite alt. and some qz veining.	48.00	51.00	0	0	0	0.000	98	38.000	0	5
				51.00	54.00	0	0	0	0.000	99	70.000	0	5
				54.00	57.00	0	0	0	0.000	99	64.000	0	5
				57.00	60.00	0	0	0	0.000	98	71.000	0	5
				60.00	63.00	0	0	0	0.000	99	71.000	0	5
				63.00	66.00	0	0	0	0.000	99	73.000	0	5
				66.00	69.00	0	0	0	0.000	97	73.000	0	5

DIAMOND DRILL HOLE: G200402

Highland Valley Copper

09:05:48 09-14-2004

Geological Log

Hole: G200402
Page: 2

From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
				69.00	72.00	0	0	0	0.000	98	72.000	0	5
				72.00	75.00	0	0	0	0.000	99	62.000	0	5
				75.00	78.00	0	0	0	0.000	99	72.000	0	5
				78.00	81.00	0	0	0	0.000	99	71.000	0	5
52	81	DIOR	F.g. grey-green diorite; mostly plag. and mafics (amph. and black biotite); wk acc. mag.; slight greenish cast to some plag. poss. due to sericite alt. Wk propylitic alt. primarily as epidote w/ some calcite-chlorite; very strong epidote and calcite alt/ at upper ct over 0.4m. Poss. wk and spotty brown biotite overprinting in places. Fairly mass. rock w/ coarse jt'ing and high RQD's. Sulfide content is 1% as diss. and occ. stringer.	81.00	84.00	0	0	0	0.000	96	52.000	0	5
				84.00	87.00	0	0	0	0.000	99	45.000	0	5
				87.00	90.00	0	0	0	0.000	99	96.000	0	5
				90.00	93.00	0	0	0	0.000	99	82.000	0	5
				93.00	96.00	0	0	0	0.000	99	93.000	0	5
				96.00	99.00	0	0	0	0.000	99	84.000	0	5
				99.00	102.00	0	0	0	0.000	99	69.000	0	5
				102.00	105.00	0	0	0	0.000	99	39.000	0	3
				105.00	108.00	0	0	0	0.000	97	37.000	0	4
				108.00	111.00	0	0	0	0.000	88	12.000	0	3
				111.00	114.00	0	0	0	0.000	98	29.000	0	3
81	88.7	NVOL	V.f.g. dk grey-green mass., equigranular Nicola volcanics w. mod. propylitic alt. as epidote-calcite-chlorite veining; mod. to strongly magnetic. Sulfide content increases to 2-3% range. Narrow chilled contacts w/ diorite.										
88.7	98.2	DIOR	F.g. grey diorite; equigranular w/ plаг., mafics (amph. + biotite), and increasing qz; weakly mag. Mod. propylitic alt. as epidote-calcite-chlorite-pyrite veinlets. Some wk alt. of plаг. Sulfide content in 1-2% range.										
98.2	103.4	NVOL	V.f.g. dk grey-green mass. Nicola volcanics; wk propylitic alt.; 1% sulfides.										
103.4	131.1	NVOL	F.g.-m.g. vesicular and amygdaloidal flows; oxidized flow top features; some minor m.g. sections may be diorite incl. or m.g. flows segments. Most significant feature is dev. of an intense propylitic alt. assemblage characterized by strong epidote, calcite, chlorite, pyrite, and specularite hematite mineralization. Some magnetite is	114.00	117.00	0	0	0	0.000	93	20.000	0	3
				117.00	120.00	0	0	0	0.000	93	20.000	0	2

DIAMOND DRILL HOLE: G200402

Highland Valley Copper

09:05:49 09-14-2004

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DIAMOND DRILL HOLE: G200402

Highland Valley Copper

09:05:50 09-14-2004

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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
201	205.4	DIOR	F.g grey-green diorite w/ moderate propylitic alt. as epidote-chlorite-pyrite; 3-5% sulfides as veinlets and diss.	201.00	204.00	0	0	0	0.000	80	0.000	0	3
205.4	205.8	NVOL	V.f.g. dk-green Nicola volcanics - intensely chloritized.	204.00	207.00	0	0	0	0.000	81	14.000	0	2
205.8	209.5	FX	Very intense fault zone in Nicola Volcanics; all gouge and crushed rock w/ original rock fabric totally destroyed. Fault material is mineralized w/ specular hematite and pyrite(4-5%). Upper and lower contacts are at 20 deg. to C.A.	207.00	210.00	0	0	0	0.000	84	9.000	0	1
209.5	210.4	NVOL	V.f.g dk-green Nicola volcanics w/ int. propylitic alt. (epidote-chlorite).	210.00	213.00	0	0	0	0.000	87	18.000	0	4
210.4	241.7	DIOR	F.g. gy-green diorite w/ mod.-strong propylitic alt. as epidote-calcite-pyrite-chlorite and some sec. albitization dev. away from fractures. Sulfide content is in the 2-3% range as veinlets, diss., and joint fillings. Core is intensely jointed and broken up with lower recovery due to mislatches. After 234m, sulfide content increases to up to 5% as pyrite w/ more veinlets and clots. At 240.2m, poss. 2 cm K-spar alt. envelope noted or is poss. Fe-stained plаг.	213.00	216.00	0	0	0	0.000	92	22.000	0	5
				216.00	219.00	0	0	0	0.000	84	18.000	0	5
				219.00	222.00	0	0	0	0.000	82	21.000	0	4
				222.00	225.00	0	0	0	0.000	87	13.000	0	4
				225.00	228.00	0	0	0	0.000	82	10.000	0	4
				228.00	231.00	0	0	0	0.000	97	8.000	0	4
241.7	244.75	NVOL	V.f.g. dk-green Nicola Volcanics w/ strong propylitic alt. as epidote-chlorite-calcite-hematite-pyrite; sulfides in 2% range. Upper contact is shr'd w/ gouge to 242m.	231.00	234.00	0	0	0	0.000	98	27.000	0	4
				234.00	237.00	0	0	0	0.000	99	16.000	0	4
				237.00	240.00	0	0	0	0.000	99	5.000	0	2
				240.00	243.00	0	0	0	0.000	99	20.000	0	3
			End of hole at 244.75m	243.00	244.75	0	0	0	0.000	83	11.000	0	3

DIAMOND DRILL HOLE: G200403

Highland Valley Copper

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Geological Log

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X (Easting, Dep.): 629715.000

X (Easting, Dept.): 325,250.000

2 (Elevation): 9,000

Date Collared: May 21 2004

Date Collected: May 21, 2004
Date Completed: May 26, 2004

Date Completed: May 26, 2004
Date Logged: June 3, 2004

Date Logged: June 9, 2004
POLIN HOLE SURVEY - Depth

DOWN HOLE SURVEYS: Depth

215.000

Core Size: No

Length: 251.760

Collar Azimuth: 135.000

Collar Reimbursement: \$55,000

OB Depth: 8 140

Job Depth: 9.140
Logged By: L. Bond

Logged by: L. Bond

Remarks: Collar Coors. UTM - NAD 83. DDH drilled on the Getty Copper option to test an IP anomaly in the North Valley area.

DIAMOND DRILL HOLE: G200403

Highland Valley Copper

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*Geological Log*Hole: G200403
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From To Unit Description

From To ARG SER KPR Bn/Cp Recov % RQD Hard RkStr

fault @ 30deg. to C.A. w/ some calcite rich gouge and crushed rock dev.; some whitish bleached rock within the fault zone could be albitionization.

64 100 NVOL Hornfelsed Nicola volcanics as above, very siliceous and fairly massive. w/ widespaced jointing and higher RQD's. Persistent foliation in biotite rich sections. Sulfide content is less in this interval, up to 5% sulfides(pyrite). At 77.8m, 2cm albite-actinolite-pyrite veinlet. Some narrow black siliceous stringers w/ pyrite occur between 91 and 95m.

45.00	48.00	0	0	0	0.000	99	75.000	0	5
48.00	51.00	0	0	0	0.000	99	45.000	0	5
51.00	54.00	0	0	0	0.000	99	57.000	0	5
54.00	57.00	0	0	0	0.000	99	61.000	0	5
57.00	60.00	0	0	0	0.000	98	62.000	0	5
60.00	63.00	0	0	0	0.000	99	70.000	0	5
63.00	66.00	0	0	0	0.000	99	47.000	0	5
66.00	69.00	0	0	0	0.000	99	41.000	0	5
69.00	72.00	0	0	0	0.000	99	60.000	0	5
72.00	75.00	0	0	0	0.000	99	61.000	0	5
75.00	78.00	0	0	0	0.000	98	64.000	0	5

78.00	81.00	0	0	0	0.000	97	37.000	0	5
81.00	84.00	0	0	0	0.000	99	33.000	0	5
84.00	87.00	0	0	0	0.000	99	44.000	0	5
87.00	90.00	0	0	0	0.000	99	62.000	0	5
90.00	93.00	0	0	0	0.000	97	54.000	0	5
93.00	96.00	0	0	0	0.000	97	55.000	0	5
96.00	99.00	0	0	0	0.000	99	34.000	0	5
99.00	102.00	0	0	0	0.000	99	38.000	0	5

DIAMOND DRILL HOLE: G200403

Highland Valley Copper

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*Geological Log*Hole: G200403
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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
				102.00	105.00	0	0	0	0.000	99	27.000	0	5
				105.00	108.00	0	0	0	0.000	93	52.000	0	5
				108.00	111.00	0	0	0	0.000	99	0.000	0	5
100	114.5	NVOL	Hornfelsed Nicola Volcanics; darker, more biotite rich rock. Sulfide content is higher, 5-10% sulfides. Core is shattered and broken up from 109-111m w/ several minor shears at 50 deg. to C.A.	111.00	114.00	0	0	0	0.000	98	24.000	0	5
114.5	116.5	DIOR	F.g grey-green diorite dyke intruding hornfelsed volcanics. Rock has f.g. sec. brown biotite.	114.00	117.00	0	0	0	0.000	96	38.000	0	5
				117.00	120.00	0	0	0	0.000	99	42.000	0	5
				120.00	123.00	0	0	0	0.000	98	59.000	0	5
				123.00	126.00	0	0	0	0.000	98	44.000	0	5
				126.00	129.00	0	0	0	0.000	47	55.000	0	5
				129.00	132.00	0	0	0	0.000	96	14.000	0	3
				132.00	135.00	0	0	0	0.000	97	17.000	0	3
				135.00	138.00	0	0	0	0.000	94	36.000	0	5
116.5	131.4	NVOL	Hornfelsed Nicola volcanics becoming more siliceous (lt-grey rock); lower sulfide content(<5%).	138.00	141.00	0	0	0	0.000	93	28.000	0	5
131.4	135	FX	Strong fault zone in hornfelsed Nicola volcanics; several faulted intervals w/ gouge and crushed rock; most prom. slip orientation is 50 deg. to C.A.	141.00	144.00	0	0	0	0.000	99	30.000	0	5
				144.00	147.00	0	0	0	0.000	99	51.000	0	5
				147.00	150.00	0	0	0	0.000	99	60.000	0	5
				138.00	141.00	0	0	0	0.000	93	28.000	0	5
				141.00	144.00	0	0	0	0.000	99	30.000	0	5
				144.00	147.00	0	0	0	0.000	99	51.000	0	5
				147.00	150.00	0	0	0	0.000	99	60.000	0	5

DIAMOND DRILL HOLE: G200403

Highland Valley Copper

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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
				150.00	153.00	0	0	0	0.000	99	12.000	0	5
				153.00	156.00	0	0	0	0.000	99	19.000	0	3
				156.00	159.00	0	0	0	0.000	99	43.000	0	5
				159.00	162.00	0	0	0	0.000	99	45.000	0	5
135	154.7	NVOL	Hornfelsed Nicola volcanic unit; generally dk-brown biotite rich and well foliated. Increased sulfide content in 5-10% range as laminae, diss., clots, and stringers. From 138.4-139.7m, several shears up to 10cm wide w/ gouge at 30 deg. to C.A. Lower ct at 154.7m is 3cm shear w/ gouge @ 30 deg. to C.A.										
154.7	189.7	NVOL	Hornfelsed Nicola volcanic unit; Initially mostly v.f.g. lt-grey siliceous rock w/ minor brown biotite and low sulfide content in the 1-2% range; does not exceed 3%. At 182m, 5cm shear w/ gouge at 35 deg. to C.A. Contact at 189.7m is faulted at 35 deg. to C.A. w/ less alt'd flows below	162.00	165.00	0	0	0	0.000	99	62.000	0	5
				165.00	168.00	0	0	0	0.000	99	37.000	0	5
				168.00	171.00	0	0	0	0.000	98	47.000	0	5
				171.00	174.00	0	0	0	0.000	99	34.000	0	5
				174.00	177.00	0	0	0	0.000	98	21.000	0	3
				177.00	180.00	0	0	0	0.000	91	24.000	0	5
				180.00	183.00	0	0	0	0.000	83	0.000	0	3
				183.00	186.00	0	0	0	0.000	99	40.000	0	5
				186.00	189.00	0	0	0	0.000	98	21.000	0	3
				189.00	192.00	0	0	0	0.000	85	63.000	0	5
				192.00	195.00	0	0	0	0.000	97	71.000	0	5
189.7	230.9	NVOL	Dark grey-green Nicola volcanics; less altered porphyritic flows w/ small(2-3mm) plag. phenocrysts; brecciated for 1m from upper contact w/ sign. sul. in bx; overall sul. content in this interval is in the 2-3% range. Rock has fine brown biotite speckled throughout but has much less hornfels metasomatism than previous part of hole. Core is fairly mass. w/ coarse jointing and higher RQD's. From 230.6-230.9m is whitish albite -actinolite vn'ing	195.00	198.00	0	0	0	0.000	99	66.000	0	5
				198.00	201.00	0	0	0	0.000	99	71.000	0	5
				201.00	204.00	0	0	0	0.000	99	46.000	0	5
				204.00	207.00	0	0	0	0.000	99	43.000	0	5
				207.00	210.00	0	0	0	0.000	99	23.000	0	5
				210.00	213.00	0	0	0	0.000	99	32.000	0	5
				213.00	216.00	0	0	0	0.000	99	37.000	0	5
				216.00	219.00	0	0	0	0.000	95	51.000	0	5
				219.00	222.00	0	0	0	0.000	99	49.000	0	5
				222.00	225.00	0	0	0	0.000	97	32.000	0	5

DIAMOND DRILL HOLE: G200403

Highland Valley Copper

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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
				225.00	228.00	0	0	0	0.000	99	51.000	0	5
				228.00	231.00	0	0	0	0.000	99	74.000	0	5
230.9	251.76	NVOL	Hornfelsed Nicola volcanics. Dk-brown to greenish-brown, very brown biotite rich rock; some foliation developed; interval has strong hornfels metasomatism. Sulfide content increases to 3-4% range as diss., in brown biotite rich laminae, and as thin stringers. Rock is mass. w/ higher RQD's. Intensity of alteration is somewhat less than hornfelsed section at top of hole.	231.00	234.00	0	0	0	0.000	99	63.000	0	5
				234.00	237.00	0	0	0	0.000	99	81.000	0	5
				237.00	240.00	0	0	0	0.000	99	81.000	0	5
				240.00	243.00	0	0	0	0.000	99	74.000	0	5
				243.00	246.00	0	0	0	0.000	99	84.000	0	5
			End of Hole at 251.76m.	246.00	249.00	0	0	0	0.000	99	86.000	0	5
				249.00	251.76	0	0	0	0.000	99	61.000	0	5

DIAMOND DRILL HOLE: G200404

Highland Valley Copper

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Hole: G200404
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Geological Log

Section:

X (Easting, Dep.): 632060.000
Y (Northing, Lat.): 85607010.000
Z (Elevation): 0.000
Date Collared: May 13, 2004
Date Completed: May 16, 2004
Date Logged: May 21, 2004

Core Size: NQ

Length: 97.540
Collar Azimuth: 270.000
Collar Dip: -60.000
OB Depth: 6.100

Remarks: Collar Coor. UTM-NAD 83. DDH drilled on the Getty Copper option to test an IP anomaly in the North Valley area.

From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
0	6.1	CAS	Casing through overburden.										
6.1	38.2	NVOL	Nicola Volcanics - f.g green-dk green andesitic volc. or vfg dior., occ. slightly porphyritic w/ hornblende and plagioclase phenocrysts up to 2-3mm in v.f.g. groundmass. Generally very well jointed and broken up w/ limonitic iron staining on joints; some calcite and possibly sideritic joint fillings; occ. white qz veining and some vuggy qz-carb. veining. Some fractures have dk-green, probably chloritic envelopes w/ diss. pyrite; only occ. epidote in this interval. Lots of magnetite in the rock (5%) w/ some pyrite-magnetite assoc. as well. Sulfides seem to be all pyrite but overall content is low in this section (around 1%). Some lighter colored sections of core seem to have increased plag. (Albitization poss.).	6.10	9.00	0	0	0	0.000	88	9.000	0	3
				9.00	12.00	0	0	0	0.000	97	21.000	0	3
				12.00	15.00	0	0	0	0.000	99	35.000	0	3
				15.00	18.00	0	0	0	0.000	88	30.000	0	3
				18.00	21.00	0	0	0	0.000	99	75.000	0	3
				21.00	24.00	0	0	0	0.000	98	37.000	0	3
				24.00	27.00	0	0	0	0.000	98	48.000	0	3
				27.00	30.00	0	0	0	0.000	96	39.000	0	3
				30.00	33.00	0	0	0	0.000	99	67.000	0	3
				33.00	36.00	0	0	0	0.000	96	63.000	0	3
				36.00	39.00	0	0	0	0.000	99	26.000	0	3
				39.00	42.00	0	0	0	0.000	99	24.000	0	3
38.2	58.7	NVOL	F.g. dk-green volcanics, locally plagioclase phryic with 2-3mm phenocrysts. Unit contains increasing amounts of dk-green mafic clots or patches; the clots are magnetite rich with diss. sulfides (prob. pyrite); these clots tend to be 1-5cm in size and can be roughly elongated. Joints contain much chlorite and fibrous talcose-like fillings(tremolite?) and calcite. Section contains 1-5% sulfides.	42.00	45.00	0	0	0	0.000	93	58.000	0	3
				45.00	48.00	0	0	0	0.000	98	31.000	0	3
				48.00	51.00	0	0	0	0.000	97	18.000	0	3
				51.00	54.00	0	0	0	0.000	99	38.000	0	3
				54.00	57.00	0	0	0	0.000	99	45.000	0	3

DIAMOND DRILL HOLE: G200404

Highland Valley Copper

09:07:04 09-14-2004

*Geological Log*Hole: G200404
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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
58.7	79.7	NVOL	This interval consists of an intensely foliated rock w/ almost "gneissic" fabric in places. It has a banded appearance w/ dk-green chloritic bands or seams separated by light-colored, qz- or plagioclase-rich material; this poss. is a recrystallized volcaniclastic or sedimentary inclusion; does not appear to be a dyke. The unit is sulfide rich w/ 5% or greater sulfide content (prob. pyrite); the sulfides favor the more mafic bands or clots. The rock is well-jointed with fillings being primarily chlorite and calcite. The lower contact occurs over 20 cm of chloritic and talcose gouge w/ some fragments.	57.00	60.00	0	0	0	0.000	99	17.000	0	3
				60.00	63.00	0	0	0	0.000	93	17.000	0	3
				63.00	66.00	0	0	0	0.000	99	14.000	0	3
79.7	89	NVOL	F.g. dk grey-green andesitic volc. (prob. Nicola) w/ some small mafic patches as in the interval from 38.2-58.7m.										
89	95.1	NVOL	Mostly intensely foliated rock w/ alternating chloritic and siliceous bands as per interval from 58.7-79.7m; highly variable color index; darker material more sulfide rich. The rock has been strongly metasomatized (hornfels).	66.00	69.00	0	0	0	0.000	99	17.000	0	3
				69.00	72.00	0	0	0	0.000	99	10.000	0	3
				72.00	75.00	0	0	0	0.000	80	0.000	0	3
				75.00	78.00	0	0	0	0.000	99	16.000	0	3
				78.00	81.00	0	0	0	0.000	96	16.000	0	3
				81.00	84.00	0	0	0	0.000	97	0.000	0	3
				84.00	87.00	0	0	0	0.000	97	45.000	0	3
				87.00	90.00	0	0	0	0.000	87	0.000	0	3
				90.00	93.00	0	0	0	0.000	82	0.000	0	3
				93.00	96.00	0	0	0	0.000	72	0.000	0	2
				96.00	97.54	0	0	0	0.000	65	0.000	0	2
95.1	97.54	FX	Intensely faulted zone w/ chloritic and talcose rubble; couple of small fragments at end of hole consist of bleached foliated rock.										

End of hole at 97.54m; could not advance past fault.

DIAMOND DRILL HOLE: G200404A

Highland Valley Copper

09:06:28 09-14-2004

Hole: G200404A
Page: 1*Geological Log*

Section:
 X (Easting, Dep.): 632060.000
 Y (Northing, Lat.): 85607010.000
 Z (Elevation): 0.000
 Date Collared: May 16, 2004
 Date Completed: May 20, 2004
 Date Logged: June 4, 2004

Core Size: NQ
 Length: 200.250
 Collar Azimuth: 0.000
 Collar Dip: -90.000
 OB Depth: 4.880
 Logged By: L. Bond

Remarks: Collar Coor. are UTM-NAD 83. DDH drilled on the Getty Copper option in the North Valley area to test an IP anomaly.

From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
0	4.88	CAS	Casing in overburden.										
4.88	19	NVOL	Andesitic volcanics(Nicola)-very fine grained grey-green volcanics, occ. plagioclase phryic(3mm), magnetite-rich(5%) w/ visible magnetite grains, also occ. hornblendes in grey-green groundmass. Intensely jonted rock w/ lots of limonitic staining on jts. Rock becomes more light gray after 14m (more qz-plag. rich). Only trace sulfides in this section. After 15m, rock has small, gray, gravel size angular inclusions as well as some visible biotite phenos(2mm). There is some whitish bleaching along fractures which might be albitization; onlt trace epidote.										
19	24.5	NVOL	As above but w/ dk-green, mafic, chlorite and magnetite-rich shredded clots or altered patches; rock has been somewhat metasomatized(hornfels).	4.88	6.00	0	0	0	0.000	71	33.000	0	4
				6.00	9.00	0	0	0	0.000	98	37.000	0	4
				9.00	12.00	0	0	0	0.000	98	21.000	0	4
				12.00	15.00	0	0	0	0.000	97	22.000	0	4
				15.00	18.00	0	0	0	0.000	99	30.000	0	4
				18.00	21.00	0	0	0	0.000	96	13.000	0	3
				21.00	24.00	0	0	0	0.000	88	20.000	0	3
				24.00	27.00	0	0	0	0.000	99	25.000	0	3
				27.00	30.00	0	0	0	0.000	94	11.000	0	3
				30.00	33.00	0	0	0	0.000	97	29.000	0	3
				33.00	36.00	0	0	0	0.000	94	4.000	0	3
				36.00	39.00	0	0	0	0.000	99	4.000	0	3

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From To Unit Description

From To ARG SER KPR Bn/Cp Recov % RQD Hard RkStr

mag.-rich. Wkly sheared contact over 2 cm at 60deg. to C.A. at 74.9m

74.9 111.6 NVOL F.g. plagioclase phryic andesitic volcanics (Nicola). Section contains chlorite-magnetite rich patches or clots up tp 5-7cm in size(may also contain f.g. black biotite). The rock has a crude foliation with the long axes of the patches roughly parallel to foliation. Locally, the unit is laminated with pyrite-rich laminae. Overall, sulfides are up to 5%. Rock has coarse jointing with polished chlorite-talcose fillings with some calcite. Occ. qz veinlet is present with some pyrite. Some slightly bleached sections outward from fractures could be wk albitization. Brownish cast to core in places; rock may be metasomatized or hornfelsed. At 94.3m, 20cm shr at 50 deg. to C.A. w/ chlorite-talcose gouge; 101m, wkly shr'd at 40 deg. to C.A. Possible minor cpy w/ py at 103-104m. Very magnetite-rich pyritic laminae from 101m. Secondary brown boitite present.

From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
69.00	72.00	0	0	0	0.000	99	57.000	0	4
72.00	75.00	0	0	0	0.000	99	71.000	0	4
75.00	78.00	0	0	0	0.000	96	43.000	0	3
78.00	81.00	0	0	0	0.000	99	41.000	0	3
81.00	84.00	0	0	0	0.000	99	37.000	0	3
84.00	87.00	0	0	0	0.000	99	56.000	0	3
87.00	90.00	0	0	0	0.000	99	42.000	0	3
90.00	93.00	0	0	0	0.000	95	20.000	0	3
93.00	96.00	0	0	0	0.000	99	35.000	0	3
96.00	99.00	0	0	0	0.000	99	50.000	0	3

From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
99.00	102.00	0	0	0	0.000	97	14.000	0	3
102.00	105.00	0	0	0	0.000	99	52.000	0	4
105.00	108.00	0	0	0	0.000	97	13.000	0	4

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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
				108.00	111.00	0	0	0	0.000	98	28.000	0	4
				111.00	114.00	0	0	0	0.000	98	12.000	0	2
				114.00	117.00	0	0	0	0.000	99	18.000	0	2
				117.00	120.00	0	0	0	0.000	99	14.000	0	3
				120.00	123.00	0	0	0	0.000	60	8.000	0	3
				123.00	126.00	0	0	0	0.000	98	31.000	0	2
				126.00	129.00	0	0	0	0.000	98	37.000	0	4
				129.00	132.00	0	0	0	0.000	95	25.000	0	4

111.6 118.4 FX As above but with several intense faults and shears. The dark green chlorite-magnetite rich clots have an extenuated or shredded fabric at times; some rock sections are bleached to lt-grey color. Major shear orientation is 30 deg. to C.A. at 111.6m. Some of the core within the faulted interval is softer (poss. argillized plаг.) and less magnetic. From 116.5-117.1 core is all calcitic gouge and ground up rock w/ slips at 25-30 deg. to C.A.

118.4 146.7 NVOL F.g to v.f.g. plagioclase and hornblende-phyric (1-2mm) andesitic volc. or v.f.g. diorite; has several slightly bleached intervals. From 123.6-125.0m core is sheared and bleached @ 35-40 deg to C.A. Rock is weakly magnetic with 3-4% accessory mag. only. There are little or no sulfides in this section. From 132.0-133.6m, the core is strongly faulted w/ gouge and fault breccia w/ slips at 60 deg. to C.A. At 137.3m, there is a 20cm fault w/ gouge and crushed rock at 50 deg. to C.A. w/ intense epidote alt. which persists in core to 138.0m. From 145.9-146.7 is a wk fault w/ narrow qz-carb veining at 25 deg. to C.A.

132.00	135.00	0	0	0	0.000	95	0.000	0	4
135.00	138.00	0	0	0	0.000	98	33.000	0	4
138.00	141.00	0	0	0	0.000	99	58.000	0	4
141.00	144.00	0	0	0	0.000	99	52.000	0	4
144.00	147.00	0	0	0	0.000	99	29.000	0	4
147.00	150.00	0	0	0	0.000	93	8.000	0	3

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From	To	Unit	Description	From	To	ARG	SER	KPR	Bn/Cp	Recov	% RQD	Hard	RkStr
146.7	161.2	NVOL	Dk-green, f.g., more plagioclase phryic andesitic volcanic unit than previous; plag. phenos to 8-10mm; occ. poikilitic texture in some phenos w/ poss. sericite specks. This unit is more magnetic w/ minor amts of sulfides. It is badly broken up from 148-151m w/ lots of chloritic-talcose fracture fillings. Occ. thin calcite chlorite stringer w/ bleached envelopes. The lower contact is wkly shr'd and bleached at 161.2m at 75 deg. to C.A.	150.00	153.00	0	0	0	0.000	98	40.000	0	3
				153.00	156.00	0	0	0	0.000	99	46.000	0	4
				156.00	159.00	0	0	0	0.000	99	64.000	0	4
				159.00	162.00	0	0	0	0.000	98	34.000	0	4
161.2	200.25	NVOL	V.f.g. grey-green andesitic volcanic, plagioclase-phyric; sporadic occurrences of dk-green mag.-chlorite rich clots(1-7cm). Occ. larger clots of this type noted w/ wk foliation and poss. micaeous bands along w/ magnetite and some pyrite. The rock in this section is fairly massive and competent w/ higher RQD's. Overall sulfides in this interval are only 1-2% with more sporadic occurrences. Weakly bleached zones outward from fractures are common;the occ. fracture has a brown-black micaeous selvage or envelope. Core is wkly shr'd from 184.9-185.6m at 35 deg. to C.A. with sulfides. From 196.0m, core is broken up w/ lots of jointing and shr'd joints @ 0-10 deg. to C.A. w/ chlorite-talcose-calcite fillings. The rock has been weakly to moderately metasomatized(hornfels).	162.00	165.00	0	0	0	0.000	99	40.000	0	3
				165.00	168.00	0	0	0	0.000	99	39.000	0	3
				168.00	171.00	0	0	0	0.000	99	52.000	0	4
				171.00	174.00	0	0	0	0.000	99	53.000	0	3
				174.00	177.00	0	0	0	0.000	99	76.000	0	4
				177.00	180.00	0	0	0	0.000	99	63.000	0	4
				180.00	183.00	0	0	0	0.000	99	73.000	0	4
				183.00	186.00	0	0	0	0.000	99	52.000	0	4
				186.00	189.00	0	0	0	0.000	99	47.000	0	4
				189.00	192.00	0	0	0	0.000	99	60.000	0	4
				192.00	195.00	0	0	0	0.000	99	85.000	0	3
				195.00	198.00	0	0	0	0.000	99	53.000	0	3
				198.00	202.25	0	0	0	0.000	99	28.000	0	3

10.0 APPENDIX B

