GUY & CHRISTOPHER DELORME

(Owners & Operators)

GEOLOGICAL ASSESSMENT REPORT

(Event 5457326)

of a

STRUCTURAL ANALYSIS

on

Tenure 585384

of the ten claim

Bertha 585384 Claim Group

Kamloops Mining Divisions

BCGS Map 092I.046

work done from

April 14, 2013 to April 18, 2013

Centre of Work
5,588,884N, 652,376E

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SUMMARY

The Bertha 585384 Claim Group is located in the Highland Valley of south central British Columbia within 12 kilometres of the Highland Valley Copper mine; one of the largest copper mining and concentrating operations in the world which, with the Lornex Mine, has measured and indicated ore reserves of 761 million tonnes of 0.408 per cent copper and 0.0072 molybdenum.

The Highland Valley copper/molybdenum deposit lies within the Guichon Creek batholith in the Bethsaida Phase of porphyritic quartz monzonite and granodiorite. The most prominent structural features are the north trending, west dipping Lornex fault and the east trending Highland Valley fault. At the Lornex deposit, mineralization is controlled by the distribution and density of fracture sets.

The ten claim, 2201 hectare Bertha 585384 Claim Group is located 210 kilometres northeast of Vancouver and within 12 kilometres of the producing Highland Valley Copper mine. The Claim Group is primarily underlain by three phases of the Guichon Batholith with a sliver, possibly a pendant, of Nicola volcanics, along a contact between the two eastern phases.

The structural analysis of Tenure 585384, one of the claims of the Bertha 585384 Claim Group, identified four structural intersections between dominant northerly and west-northwesterly structures. Three of the intersections are within the Border Phase of the Guichon Batholith and one at an interior contact between a sliver of Nicola volcanics and the Gump Lake Phase of the Guichon Batholith.

The structural intersection locale with increased fractured zones and/or localized breccia would be a preferred conduit for the pressurized hydrothermal fluids to surface or be deposited within any well fractured area which may result in an economic zone of porphyritic mineralization as at the Lornex Thus, each of these intersections would be areas to explore for surficial indications of a hydrothermally generated mineral source at depth.

The Highland Valley Copper deposit is a prime example of a structurally controlled mineral deposit in the Guichon Batholith in this area with this world-class deposit located at the intersection of two major faults.

Surficial indications of other potential mineral deposits in the area are described in the eight Minfile mineral descriptions copied herein from the BC Government Minfile records with locations shown on Figure 4.

The four structural intersections located on Tenure 585384 should be explored for any geological indicators which may be revealed as minerals and/or alteration and would be subject to interpretation as economic mineral indicators.

Excluding other variable geological conditions, the structures are essential in the localization of potentially economic porphyry and/or quartz vein hosted mineralization within the Guichon Creek intrusive or the volcanics of the Nicola Group.

INTRODUCTION

In April 2013 a structural analysis was completed on Tenure 585384 of the 10 claim Bertha 585384 claim group (Property). The purpose of the program was to delineate potential structures which may be integral in geological controls to potentially economic mineral zones that may occur on Tenure 585384 or other claims of the Bertha property.

Information for this report was obtained from sources as cited under Selected References.

Figure 1. **Location Map**
(from MapPlace)

PROPERTY DESCRIPTION AND LOCATION

Property Description

The Property is comprised of ten contiguous claims covering an area of 2201.7753 hectares. Particulars are as follows:

Table I. **Tenures of Bertha 585384 Claim Group**

Tenure Number	Type	Claim Name	Good Until	Area (ha)
585384	Mineral		20140604	494.0089
585385	Mineral		20140604	123.5592
585386	Mineral		20140604	205.6435
596226	Mineral	LOGAN	20140604	493.6639
596301	Mineral	PONYBOY NORTH	20140604	390.9753
596302	Mineral	PONYBOY SE	20140604	164.7113
605002	Mineral	PONYBOY WEST	20140604	123.4998
605003	Mineral	JERICHO GIRL	20140604	164.5672
696823	Mineral		20140604	20.5785
1011644	Mineral		20140604	20.5677

*Upon the approval of the assessment work filing, Event Number 5457326.

Property Description and Location *(cont'd)*

Location

The Bertha 585384 Claim Group is located within BCGS Maps 092I.046 of the Kamloops Mining Division, 210 kilometres northeast of Vancouver, 38 kilometres north of Merritt, 45 kilometres southwest of Kamloops, and within 12 kilometres east of the world-class producing Highland Valley Copper mine (*Minfile 092ISW012).*

The centre of the work area on Tenure 585384 is at 5,588,884N, 652,376E (10) (NAD 83).

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access

From Logan Lake, the Bertha 585384 claim group can be accessed by traveling west from Logan Lake on Highway 97D and the Highland Valley road to within 100 metres of the northwestern corner of Tenure 585386, the northwestern most claim of the Bertha 585384 claim group.

Climate

The local climate is typical of south central British Columbia. Annual temperatures range from 35^{o}C to -40^{o}C. Negative temperatures can be typically expected between late October and late March. Annual precipitation ranges around an average of 30 cm.

Local Resources & Infrastructure

Merritt, or Kamloops, historic mining centres could be a source of experienced and reliable exploration and mining personnel and a supply for most mining related equipment. Kamloops is serviced daily by commercial airline and is a hub for road and rail transportation. Vancouver, a port city on the southwest corner of, and the largest city in the Province of British Columbia is four hours distant by road and less than one hour by air from Kamloops. Logan Lake, where many of the Highland Valley Copper Mine employees reside, has many facilities to accommodate any preliminary exploration crew.

Physiography

The Property is located within the Thompson Plateau of Southern British Columbia. Topography is gentle to moderate, with elevations ranging from 1,108m near the Wendy showing in the northeast to 1,395 along the western border in the northwest.

WATER & POWER

There would be an ample water supply for the needs of any exploration program from the many lakes, rivers, or streams within the confines of the Property.

A high voltage power line traverses the central portion of the Bertha 585384 Claim Group.

HISTORY: BERTHA 585384 CLAIM GROUP AREA

The history on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Bertha 585384 Claim Group is reported as follows. The distance to the Minfile locations is relative to Tenure 585384 of the Bertha 585384 Claim Group.

JERICHO *developed prospect (Porphyry Cu* +/- Mo +/- Au)
MINFILE 092ISE011
Four kilometres west

The No. 1 zone was discovered in 1956 and subsequently developed by two adits. The upper adit, located on a low ridge, was driven 269.4 metres at a bearing of 084 degrees. Starting approximately 45.7 metres from the portal, the adit intersects mineralized quartz veins which generally strike west to northwest and dip 65 degrees to the north.

History: Bertha 585384 Claim Group Area *(cont'd)*

HIGHLAND VALLEY COPPER producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW012
Fourteen kilometres west-northwest

Highland Valley Copper was created in mid-1986 by bringing together the Highland Valley mining operations of Lornex Mining Corporation Ltd. and Cominco Ltd. into a new single entity, structured as a partnership.

On the south side of the valley was the Lornex mine which started mining in 1972. In 1981, the Lornex concentrator had been expanded to become one of the largest in the industry.

On the north side was Bethlehem Copper (092ISE001) which started mining in 1963. In 1981, this operation was absorbed by Cominco who already owned the Valley orebody (092ISW012) located west of the Lornex pit on the south side of the valley. Mining of the original Bethlehem Copper pits ceased in 1982.

Production from the Lornex mine (092ISW045) was combined with the Valley operations in 1987.

The Highmont mill on the south side of the valley was acquired in 1988 when Highmont Mining Company joined the partnership. This mill had been closed down in 1984 when the Highmont deposit (092ISE013) became uneconomical.

Lornex Mining Corporation Ltd. was wound up at the end of 1988 with the result that Rio Algom Limited, Teck Corporation and Highmont Mining Company obtained direct participation in the cash flow from the partnership.

In 1995, with Explore B.C. Program support, Highland Valley Copper carried out 197 line kilometres of high-powered induced polarization surveys for very deep penetration, and drilled 1701 metres in 4 holes. This work was done on the Lornex SW Extension, Roscoe Lake and JA zones. No anomalies of merit were detected in Lornex SW Extension, and Roscoe Lake gave only limited encouragement. IP work on the JA zone detected an anomaly extending to the south, well beyond the limits of known mineralization, and another anomaly 2000 by 1500 metres in size at the east end of the grid. Both anomalies warrant drill testing (Explore B.C. Program 95/96 - M80).

At the end of 1996, mine plans called for another 200 metres in depth in the Valley pit to the 2008. In addition, the partnership may consider mining the remaining 120 million tonnes grading 0.33 per cent copper estimated to exist in the Lornex pit (Information Circular 1997-1, page 8).

Highland Valley Copper suspended mining on May 15, 1999; they resumed August 30, 1999.

In September 2005, Highland Valley announced that mine life would be extended by five years to 2013. Very late in the year, Teck Cominco also announced that it is considering building a modern hydrometallurgical refinery on site. Most ore comes from the Valley pit, augmented by a small amount from the Lornex pit. Following a successful 300,000 tonne bulk sample test, the Highmont East pit, closed since the mid-1980s, was re-opened in the fall of 2005 to take advantage of higher molybdenum prices. In addition, exploration drilling was conducted nearby in the Highmont South area and results are being evaluated.

History: Bertha 585384 Claim Group Area (cont'd)

Figure 2. **Claim Location**
(Base Map from Google Earth)

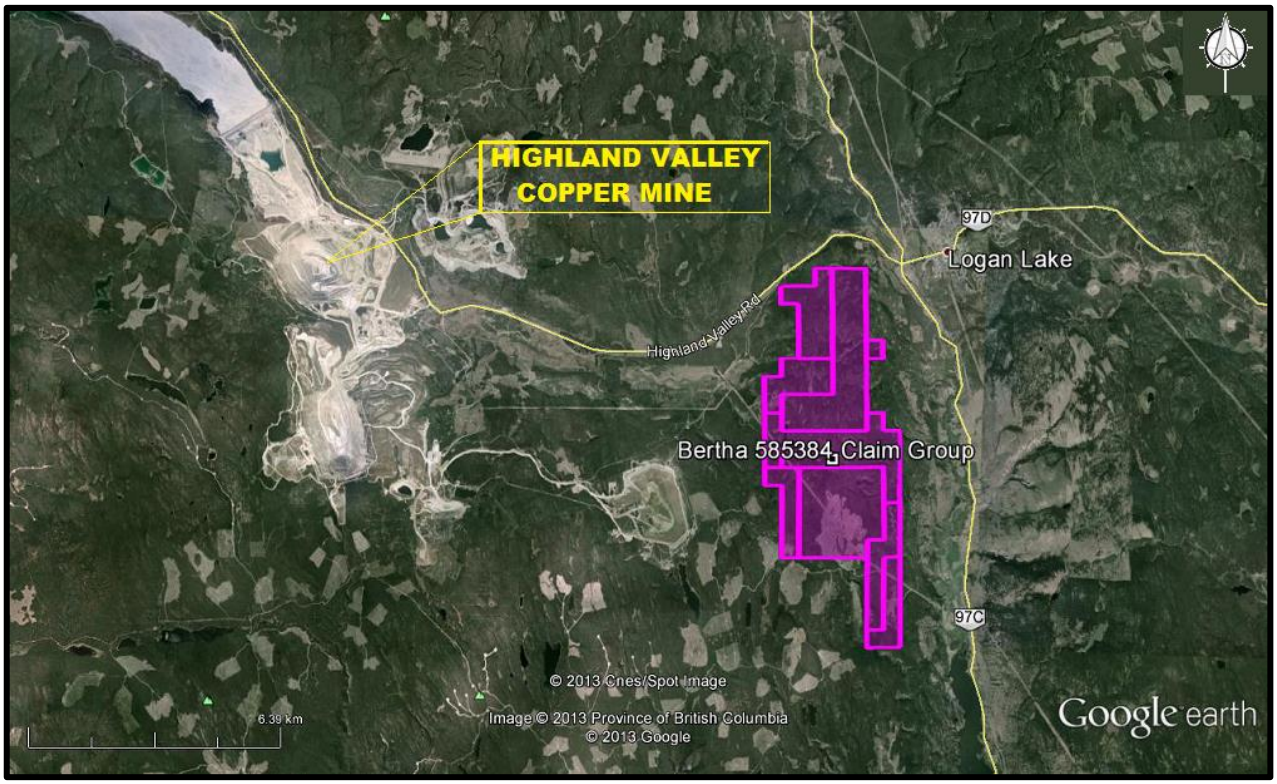
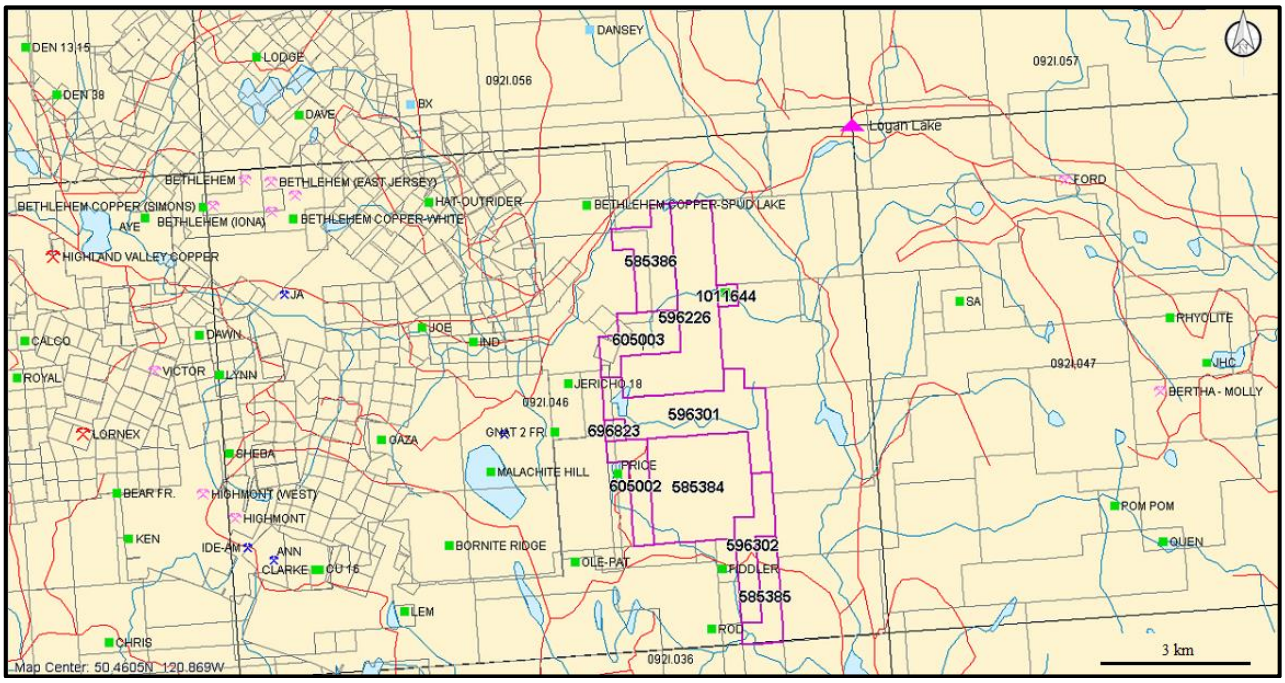


Figure 3. **Claim Map**
(from Google Earth)



History: Bertha 585384 Claim Group Area *(cont'd)*

.***LORNEX*** producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW045
Thirteen kilometres west

On the south side of the valley was the Lornex mine which started mining in 1972. In 1981, the Lornex concentrator had been expanded to become one of the largest in the industry.

Lornex Mining Corporation Ltd. was wound up at the end of 1988 with the result that Rio Algom Limited, Teck Corporation and Highmont Mining Company obtained direct participation in the cash flow from the partnership.

GEOLOGY: REGIONAL

The Bertha 585384 Claim Group is located on the southern Intermontane Belt of British Columbia on the southern extent of the Quesnel Trench. The central geological features of this region are the Late Triassic island-arc volcanic rocks of the Nicola Group, and Late Triassic mudstone, siltstone and shale clastic sedimentary rocks located to the east, and intrusive granodioritic rocks of the Late Triassic to early Jurassic. The Nicola Group is a succession of Late Triassic island-arc volcanic rocks. The Nicola Group volcanic rocks form part of a 30km to 60km wide northwest-trending belt extending from southern B.C. into the southern Yukon. This belt is enclosed by older rocks and intruded by batholiths and smaller intrusive rocks. Major batholiths in the area of the Logan Copper Property include the Guichon Creek Batholith to the west, the Wild Horse Batholith to the east, and the Iron Mask Batholith to the north northeast (see Figure 6 for regional geology).

The Guichon Creek batholith is a large, composite intrusion with a surface area of about 1,000 square kilometers. A cluster of nine major porphyry copper deposits lie within a 15 square kilometer zone in the center of the batholith. The Bertha 585384 Claim Group is situated on the eastern contact of the Guichon Creek Batholith and the Nicola volcanics within 11 kilometres of the Highland Valley Copper Mine.

The batholith is a semi-concordant composite intrusive that is elliptical and elongated slightly west of north. A central, steeply plunging root or feeder zone is inferred under Highland Valley, and the major deposits lie around the projection of the feeder zone to the surface. The batholith has intruded and metamorphosed island-arc volcanic and associated sedimentary rocks of the Nicola Group, and a metamorphic halo up to 500 meters wide is developed adjacent to the contact. Rocks along the edge of the batholith are older and more mafic, and successive phases moving inward toward the core are younger and more felsic.

Although contacts can be sharp, they are generally gradational and chilled contacts are not common. Variations in the batholiths geochemistry indicate local areas of assimilated country rock in the border zone and roof pendants in the intrusion. Outcrop areas have inclusions of amphibolite and "granitized" metamorphic rocks and compositional variations.

Two younger volcanic-dominated successions are important in the area. First, a northwest trending belt of Cretaceous continental volcanic and sedimentary rocks of the Spences Bridge Group unconformably overlie both the Nicola Group country rock and intrusive rocks along the southwest flank of the batholith. Distribution of the Spences Bridge Group rocks was locally controlled by reactivation of older faults that were important mineralization conduits in the batholith, such as the Lornex fault. Second, continental volcanic and sedimentary rocks of the Tertiary Kamloops Group cover extensive areas of the batholith and also overlie Triassic and Jurassic rocks from north of Highland Valley to the Thompson River.

GEOLOGY: BERTHA 585384 CLAIM GROUP AREA

The geology of some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Bertha 585384 Claim Group is reported as follows. The distance to the Minfile locations is relative to Tenure 585384 of the Bertha 585384 Claim Group.

BETHLEHEM COPPER-SPUD LAKE *showing* (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE008
Six kilometres north

The property lies in the Lower Jurassic Guichon Creek batholith. The Spud Lake area is underlain primarily by medium-grained Guichon variety quartz diorite and granodiorite. This unit is cut by north trending dacite porphyry dykes up to 60 metres wide. To the west, at the Bethlehem mine (092ISE001), Guichon rocks have been intruded by Bethlehem phase granodiorite. Mineralization is controlled by intrusive contacts, north trending faults and closely spaced fractures.

Alteration is generally weak and consists of chlorite, epidote and sericite. Minor fault zones have sericite-kaolinite gouges. Quartz, calcite and zeolite (laumontite, heulandite) veining occurs sporadically. Oxidation consists of malachite and limonite.

JERICHO *developed prospect (Porphyry Cu* +/- Mo +/- Au)
MINFILE 092ISE011
Four kilometres west

The Jericho adit zone is situated on the eastern flank of the Lower Jurassic Guichon Creek batholith The property is underlain by Guichon variety rocks of the older Highland Valley phase of the batholith. These rocks are medium to coarse-grained, cream grey-pink coloured granodiorite to quartz diorite, rich in biotite and plagioclase. Foliation strikes 305 degrees. Intense sericite, chlorite and clay alteration is associated with east-northeast striking and north dipping fault zones which host mineralized quartz veins.

HIGHLAND VALLEY COPPER producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW012
Fourteen kilometres west-northwest

The Valley deposit lies within the Late Triassic to Early Jurassic Guichon Creek batholith and is hosted by Bethsaida phase porphyritic quartz monzonite and granodiorite. Feldspar porphyry and quartz feldspar porphyry dykes 0.6 to 35 metres wide dip steeply eastward in the western and central areas, and northward in the southern area of the deposit. These dykes are cut by mineralized fractures and quartz veinlets, and have been dated at 204 Ma +/- 4 Ma.

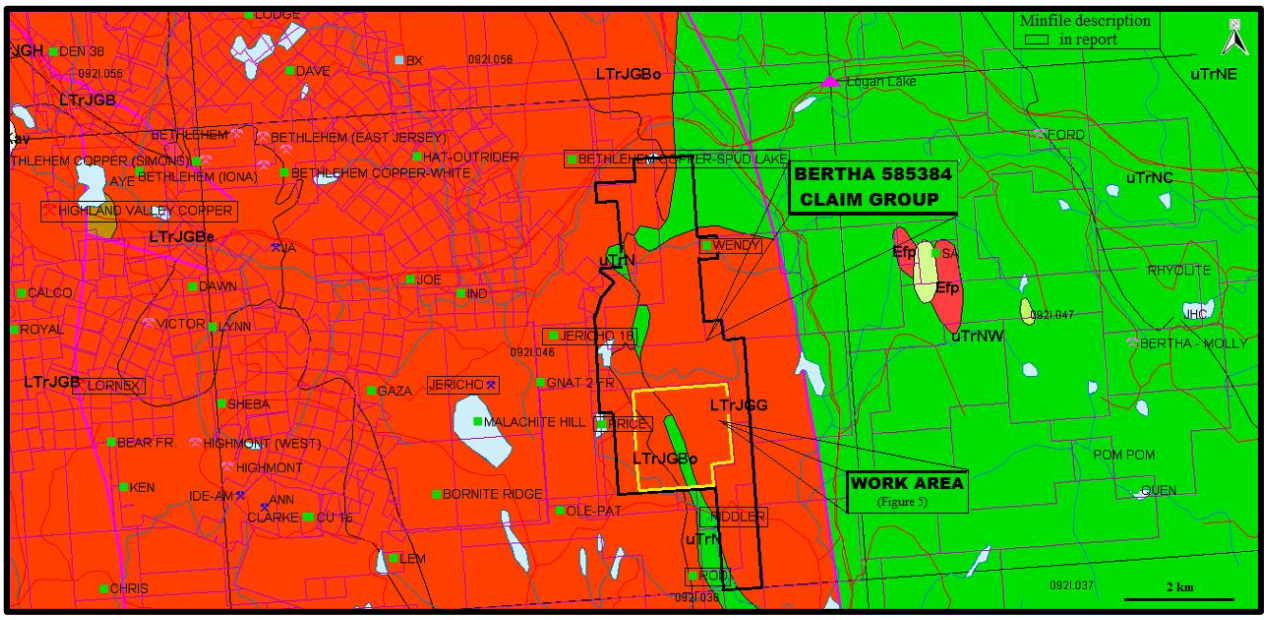
The Bethsaida granodiorite is also intruded by aplite dykes up to 30 centimetres wide, tan-coloured felsite dykes up to 4.5 metres wide, and three types of lamprophyre dykes (spessartite, hornblende vogesite, vogesite).

The most prominent structural features are the north trending, west dipping Lornex fault and the east trending Highland Valley fault. Faults and fractures in the deposit comprise four main sets. Quartz veinlets are subparallel to two of the earlier formed fault and fracture sets.

Silicic, potassic, phyllic, argillic and propylitic alteration are intimately associated. Stockworks of quartz veinlets 1 to 2 centimetres in width are common. Vuggy veinlets have envelopes of medium-grained sericite and/or potassic feldspar, and contain minor amounts of sericite, plagioclase, potassium feldspar, calcite, hematite, bornite, chalcopyrite, molybdenite, digenite and covellite.

***Geology: Bertha 585384 Claim Group Area** (cont'd)*

Figure 4. **Geology, Claim, Index & Minfile**
(Base Map from MapPlace)



GEOLOGY MAP LEGEND

Mivb
Miocene-unnamed
Basaltic volcanic rocks

EKav
Eocene-Kamloops Group
Undivided volcanic rocks

EPrb
Eocene-Penticton Group
Andesitic volcanic rocks

Upper Triassic-Nicola Group

uTrNc
Central Volcanic Facies
undivided volcanic rocks

uTrN
undivided volcanic rocks

Late Triassic to Early Jurassic

LTrJGB
GUICHON CREEK BATHOLITH

LTrJGBe – Bethlehem Phase
granodioritic intrusive rocks

LTrJGB – Bethsaida Phase
quartz monzonitic intrusive rocks

LTrJGH – Highland Valley Phase
granodioritic intrusive rocks

LTrJGG – Gump Lake Phase
granodioritic intrusive rocks

LTrJGBo – Border Phase
quartz dioritic intrusive rocks

Geology: Bertha 585384 Claim Group Area *(cont'd)*

Highland Valley Copper *producer (cont'd)*

These veinlets are moderately abundant within the 0.3 per cent copper isopleth. An area of well-developed barren quartz veinlets, generally 0.5 to 1.3 millimetres wide, without alteration envelopes, occurs in the southeastern part of the deposit.

In the west-central part of the deposit, potassium feldspar is associated with vein sericite in some replacement zones, as veinlet envelopes along fractures, and disseminated in quartz veinlets. Hydrothermal biotite occurs in small amounts. Flaky sericite and quartz, both as replacement zones and as envelopes around quartz veinlets, constitute the most common type of alteration associated with copper mineralization. Strong phyllic alteration coincides with the 0.5 per cent copper isopleth. Phyllic alteration is closely associated with pervasive argillization, which is strongest where fractures are most closely-spaced. Feldspars are altered to sericite, kaolinite, quartz and calcite. The phyllic-argillic zone grades outward to a peripheral zone of weak to moderate propylitization, characterized by clay, sericite, epidote, clinozoisite and calcite replacing plagioclase, and chlorite and epidote replacing biotite. The age of hydrothermal alteration is approximately 191 Ma.

At the Valley deposit, gypsum is interpreted to be secondary and post-ore. It is commonly fibrous and white to orange but locally it forms large platy crystals or may be massive. Anhydrite, which is also present, provides indirect evidence for the secondary nature of the gypsum. It is apparently the same age as and associated with sericitic and potassic alteration. Quartz-gypsum veins and quartz-potash feldspar veins in which gypsum fills interstices provide more direct evidence for its secondary nature. Gypsum is believed to have formed at the expense of anhydrite which was deposited from the ore-forming fluids. Gypsum veins are common in the lower portion of the orebody (Open File 1991-15).

Sulphides occur chiefly as disseminations in quartz veinlets, and in phyllic (bornite) and potassic (chalcopyrite) alteration zones. Mineralization includes bornite and chalcopyrite, with minor digenite, covellite, pyrite, pyrrhotite, molybdenite, sphalerite and galena. The oxide zone averages 4.5 metres in thickness, and contains limonite, malachite, pyrolusite, digenite, native copper, and tenorite(?).

LORNEX producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW045
Thirteen kilometres west

The Lornex deposit lies in the central core of the Late Triassic-Early Jurassic Guichon Creek batholith and occurs within Skeena variety granodiorite to quartz diorite. This rock is medium to coarse-grained and slightly porphyritic. The Lornex property straddles the north trending, west dipping Lornex fault which juxtaposes Skeena rocks on the east side with Bethsaida phase quartz monzonite on the west. A pre-mineral quartz porphyry dyke, probably related to the Bethsaida phase, trends northwest and pinches out in the Lornex deposit.

Mineralization is controlled by the distribution and density of fracture sets. Three major sets of copper-molybdenum veins strike north-northeast to east and dip moderately southeastward. There are two sets of post-mineral fault and fracture systems; one which roughly parallels the mineralized veins and another which offsets the first up to 2 metres.

Geology: Bertha 585384 Claim Group Area *(cont'd)*

Lornex *producer (cont'd)*

The most prominent structural feature is the Lornex fault which dips 55 degrees to the west in the southern part of the orebody, and steepens to nearly vertical in the north. This fault truncates the northwestern part of the deposit. It is characterized by a 10 centimetre to 1.5-metre wide black gouge on the footwall and discontinuous mylonite pods 1 to 50 metres wide in the hanging wall.

Five main types of hydrothermal alteration are related to quartz and sulphide mineralization. Pervasive silicification, consisting of close spaced quartz veins with associated quartz alteration, is hosted by the Skeena rocks. The quartz porphyry dyke is only weakly affected by hydrothermal alteration. Potassium feldspar veinlets and hydrothermal biotite are erratically distributed. Argillic alteration is pervasive throughout the ore zone and is characterized by quartz, sericite, kaolinite, montmorillonite and chlorite. Copper grades generally correspond to the intensity of argillization. Within the argillic zone, phyllic alteration consists of grey quartz-sericite envelopes on mineralized veins. Pervasive propylitization, consisting of epidote (zoisite), chlorite and carbonates (calcite), is peripheral to the argillic zone. There is also an irregular zone of late-stage gypsum.

The Lornex deposit is 1900 metres long, 500 metres wide and plunges northwest to a depth of at least 750 metres. Chalcopyrite, bornite and pyrite constitute 1.5 per cent of the ore zone and occur in three roughly concentric sulphide zones respectively. Sulphides occur mainly with quartz as fracture-fillings and coatings. Veins average 5 to 15 millimetres in width. Molybdenite occurs as thin laminae in banded quartz veins and less often as rosettes in vuggy quartz veins.

The oxide zone averages 3 to 30 metres in thickness and thins toward the east. Supergene minerals are malachite, limonite, pyrolusite, azurite, cuprite, chalcocite, covellite, and native copper.

FIDDLER showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE072
One kilometre south

The Fiddler showing is situated immediately east of the eastern border of the Lower Jurassic Guichon Creek batholith. To the east are rocks of the Upper Triassic Gump Lake quartz monzonite stock. The area to the west is underlain by leucocratic hornblende-biotite quartz diorite to granodiorite of the Highland Valley phase of the batholith. Pegmatitic granite lenses within this unit have quartz- epidote knots, some containing magnetite and chalcopyrite.

The main showing is underlain by fine to coarse-grained biotite granodiorite with gneissic foliations striking north and dipping steeply. About 125 metres to the southeast in the South zone, layers of foliated and gneissic or schistose granodiorite alternate. Pyritic aplite is present as stringers and lenses lying within the metamorphic foliation and as larger crosscutting bodies with biotite- rich and leucocratic layers.

PRICE showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 09ISE074
One kilometre west

The property lies on the eastern flank of the Lower Jurassic Guichon Creek batholith and covers the contact between the Guichon and Chataway variety granodiorites which are part of the Highland Valley phase of the batholith.

Geology: Bertha 585384 Claim Group Area *(cont'd)*

Price *showing (cont'd)*

The area around Tupper Lake is underlain by medium to coarse-grained, hornblende-biotite granodiorite. To the west of Tupper Lake these rocks are cut by late-stage aplite dykes. Small grains of chalcopyrite and magnetite are disseminated in the intrusive rocks.

JERICHO 18 showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE089
Two kilometres northwest

The Jericho showing lies on the eastern flank of the Lower Jurassic Guichon Creek batholith. The area is underlain by Chataway and Guichon variety coarse to medium-grained hornblende-biotite granodiorite which is intruded by Bethlehem phase dyke swarms. These rocks have wide compositional and textural ranges and are cut by regional faults, fractures and joints and are locally strongly altered.

Between Pete's Creek and Moly Creek, the granodiorite is intruded by quartz veins and pegmatite and aplite dykes varying in width from 2.5 centimetres to 30.5 metres or greater. Potassium feldspar enrichment is evidently associated with the smaller intrusions. Chalcopyrite with minor molybdenite occur in very widely spaced joints and fractures trending approximately 025 degrees. Mineralization occurs as thin coatings on the planes of the fractures. The fractures are very tight, vertical and accompanied by a barren conjugate set trending 060 degrees.

GEOLOGY: BERTHA 585384 CLAIM GROUP

As indicated by the BC government supported MapPlace geological maps, the Claim Group is predominantly underlain by the Early Jurassic Pennask batholith (LTrJgd) with coverage of a portion of volcanics of the Penticton Group capping a portion of the Kamloops Groups in the south. The southwestern limit of the Jurassic Okanagan Batholith, host to the Elk mineral zones, is within eight kilometres southeast.

The geology of the mineral MINFILE reported occurrences, prospects, and past producers within the Bertha 585384 Claim Group is reported as follows.

WENDY prospect (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE154
Within Tenure 1011644 of Property

The Wendy showing is situated along the eastern edge of the Guichon Creek batholith where Lower Jurassic quartz diorites and granodiorites have intruded Upper Triassic Nicola Group intermediate volcanics and sediments. These rocks were subsequently intruded by Gump Lake phase granodiorite to quartz monzonite.

The eastern portion of the property is underlain by hornfels, hornfelsed schists and granitic gneisses which have a rough north trending foliation of variable dip. The metamorphosed rocks are intruded by leucocratic, fine to medium-grained granitic dykes which increase in abundance to the west until the hornfelsic units grade into granitic units. The southwestern part of the property is underlain by fine to medium-grained diorite or granodiorite and coarse grey granite.

Alteration consists of weak sericitization along with disseminations and bands of pink potassium feldspar.

MINERALIZATION: BERTHA 585384 CLAIM GROUP AREA

The mineralization on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Bertha 585384 Claim Group is reported as follows. The distance to the Minfile locations is relative to the Bertha 585384 Claim Group.

BETHLEHEM COPPER-SPUD LAKE *showing* (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE008
Six kilometres north

Mineralization is spotty and consists of disseminations and veinlets of chalcopyrite, bornite and pyrite. Specularite and magnetite are also present in small amounts.

JERICHO *developed prospect (Porphyry Cu* +/- Mo +/- Au)
MINFILE 092ISE011
Four kilometres west

The principal sulphides are bornite associated with primary chalcocite, chalcopyrite and seams and disseminations of molybdenite. The vein walls are sheared and strongly altered. From 190 metres to its end, the upper adit intersects the No. 1 zone. The lower adit was driven in a south direction. At 525.8 metres, the 1725 zone was intersected and crosscut for a short distance. The No. 1 zone is about 685 metres from the portal and was drifted on for short distances.

Approximate (indicated) reserves are 272,130 tonnes grading 1.0 per cent copper (Highmont Mining Corporation Annual Report 1977).

HIGHLAND VALLEY COPPER producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW012
Fourteen kilometres west-northwest

Highland Valley Copper operates two distinct mines, the Valley mine and the Lornex mine, and between the two has measured and indicated ore reserves of 761 million tonnes of 0.408 per cent copper and 0.0072 molybdenum.

The ore reserves of each mine are: Valley mine - 627 million tonnes at 0.418 per cent copper and 0.0056 per cent molybdenum; Lornex mine - 135 million tonnes at 0.364 per cent copper and 0.0144 per cent molybdenum. The individual mine reserves are calculated at an equivalent cutoff grade of 0.25 per cent copper using a molybdenum multiplying factor of 3.5 (CIM Bulletin July/August 1992, pages 73,74).

LORNEX producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW045
Thirteen kilometres west

Published reserves at January 1, 1995 were 539.7 million tonnes grading 0.42 per cent copper and 0.0073 per cent molybdenum. The mine life is estimated to be about fourteen more years (Information Circular 1995-9, page 6).

Mineralization is controlled by the distribution and density of fracture sets. Three major sets of copper-molybdenum veins strike north-northeast to east and dip moderately southeastward. There are two sets of post-mineral fault and fracture systems; one which roughly parallels the mineralized veins and another which offsets the first up to 2 metres.

Mineralization: Bertha 585384 Claim Group Area *(cont'd)*

Lornex *Producer (cont'd)*

The most prominent structural feature is the Lornex fault which dips 55 degrees to the west in the southern part of the orebody, and steepens to nearly vertical in the north. This fault truncates the northwestern part of the deposit. It is characterized by a 10 centimetre to 1.5-metre wide black gouge on the footwall and discontinuous mylonite pods 1 to 50 metres wide in the hanging wall.

FIDDLER showing *(*Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE072
One kilometre south

Mineralization is not obviously related to the sericitic and limonitic alteration of the aplite and the granodiorite. Chalcopyrite occurs as disseminations in relatively fresh quartzose or biotite- rich zones in the granodiorite, as disseminations in biotite aplite, and in veins or pockets with quartz, alone or with pyrite, potassium feldspar or epidote. Some veins parallel foliation, others dip gently. A chip sample across a 75 centimetre veined, rusty mineralized zone assayed 0.35 per cent copper with traces of gold and silver (Geology, Exploration and Mining in British Columbia 1974). Some molybdenite was reported when the showing was first discovered (1915).

Post-mineralization shears cut both the aplite and country rock. The most prominent fault zones are 2.7 metres wide, strike north and dip steeply subparallel to foliation. Lesser shears strike southeast and dip moderately to the southwest. Malachite or copper oxides are usually present.

PRICE showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 09ISE074
One kilometre west

Fault zones host sericitic alteration, malachite staining and copper and molybdenum mineralization. One such zone trends north through Tupper and Gump Lakes.

The Price showing, immediately west of Tupper Lake, consists of bornite and molybdenite occurring as thin coatings on fractures in sheared granodiorite. Malachite is also present.

JERICHO 18 showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE089
Two kilometres northwest

Chalcopyrite with minor molybdenite occurs in very widely spaced joints and fractures trending approximately 025 degrees. Mineralization occurs as thin coatings on the planes of the fractures. The fractures are very tight, vertical and accompanied by a barren conjugate set trending 060 degrees.

The showing is located along Pete's Creek and consists of a concentration of mineralized fractures. A 45.36 kilogram sample of this exposure assayed 0.48 per cent copper and 0.009 per cent molybdenum (Assessment Report 922).

MINERALIZATION: BERTHA 585384 CLAIM GROUP

The mineralization on the mineral MINFILE reported occurrences, prospects, and past producers within the Bertha 585384 Claim Group is reported as follows

Mineralization: Bertha 585384 Claim Group *(cont'd)*

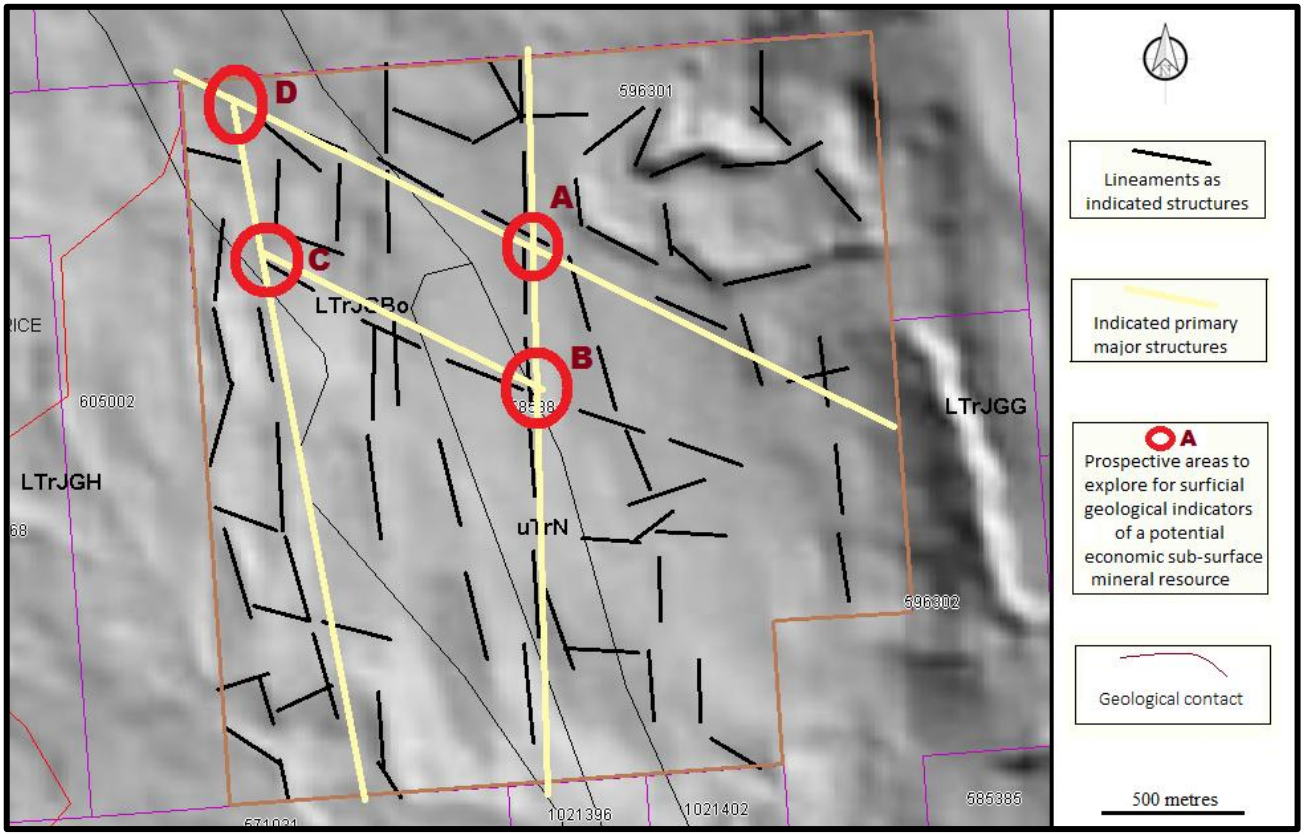
WENDY prospect (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE154
Within Tenure 1011644 of Property

Minor chalcopyrite and malachite occur as narrow veins or along joint planes and as fine disseminations in the intrusive rocks.

STRUCTURAL ANALYSIS

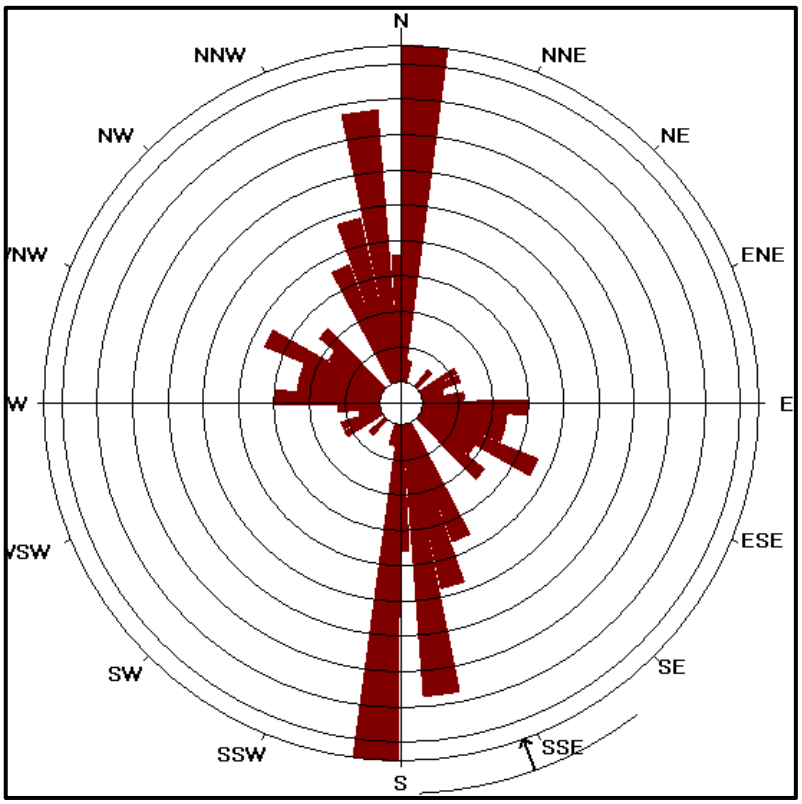
The structural analysis was performed on a MapPlace Hillshade map of Tenure 585384 by viewing of the map and marking the lineaments as indicated structures thereon. A total of 78 lineaments were marked (*Figure 5*), compiled into a 10 degree class interval, and plotted as a rose diagram as indicated on *Figure 6.*

Figure 5. **Indicated Lineaments on Tenure 585384**



Structural Analysis *(cont'd)*

Figure 6. **Rose Diagram from lineaments** *(Figure 5)* **of Tenure 585384**



STATISTICS

Axial (non-polar) data
No. of Data = 84
Sector angle = 8°
Scale: tick interval = 2% [1.7 data]
Maximum = 19.0% [16 data]
Mean Resultant dir'n = 160-340
[Approx. 95% Confidence interval = ±17.2°]
(valid only for unimodal data)

Mean Resultant dir'n = 160.0 - 340.0
Circ.Median = 001.0 - 181.0
Circ.Mean Dev.about median = 33.2°
Circ. Variance = 0.22
Circular Std.Dev. = 40.14°
Circ. Dispersion = 1.91
Circ.Std Error = 0.1509
Circ.Skewness = 4.43
Circ.Kurtosis = -5.56

kappa = 0.81
(von Mises concentration param. estimate)

Resultant length = 31.48
Mean Resultant length = 0.3747

'Mean' Moments: Cbar = 0.2868; Sbar = -0.2411
'Full' trig. sums: SumCos = 24.0952; Sbar = -20.2532
Mean resultant of doubled angles = 0.4628
Mean direction of doubled angles = 178

(Usage references: Mardia & Jupp,
'Directional Statistics', 1999, Wiley;
Fisher, 'Statistical Analysis of Circular Data',
1993, Cambridge University Press)
Note: The 95% confidence calculation uses
Fisher's (1993) 'large-sample method'

Structural Analysis *(cont'd)*

Figure 7. **Cross structural locations** *(Figure 5)* **on Tenure 585384**
(Base Map: Google Earth)

Table II. **Approximate UTM locations of Figure 5 cross-structures**
(UTM-NAD 83)

Location	UTM East	UTM North	Elevation
A	652,338	5,589,289	1,371
B	652,305	5,589,869	1,370
C	651,552	5,589,270	1,381
D	651,458	5,589,726	1,377

Table III. **Minfile Property Structures**

Property	Minfile	Structure	Comments *(Taken from Minfile description)*
Bethlehem Copper-Spud Lake	092ISE002		Mineralization is controlled by intrusive contacts, north trending faults and closely spaced fractures.
Jericho	092ISE011	Foliation strikes 305 degrees.	Quartz veins generally strike west to northwest and dip 65 degrees to the north.
Highland Valley Copper	092ISW012		The most prominent structural features are the north trending, west dipping Lornex fault and the east trending Highland Valley fault.
Lornex	092ISW045	Three major sets of copper-molybdenum veins strike north-northeast to east and dip moderately southeastward.	Three major sets of copper-molybdenum veins strike north-northeast to east and dip moderately southeastward. Mineralization is controlled by the distribution and density of fracture sets
Fiddler	092ISE072		The most prominent fault zones strike north and dip steeply subparallel to foliation. Lesser shears strike southeast and dip moderately to the southwest
Price	092ISE074	**Strike:** 010	
Jericho 18	092ISE089	**Strike/Dip:** 025/90	
Wendy	092ISE154	Rough north trending foliation of variable dip	

INTERPRETATION and CONCLUSIONS

Northerly and west-northwesterly trending dominant structures are indicated from the Rose Diagram as pertaining to the count of the directional structures from the Structural Analysis Map (SAM). These two dominant directions are likely influenced by the dynamic forces that resulted in the creation of the north trending Lornex Fault and the east trending Highland Valley Fault.

(The Highland Valley Fault is actually shown as a right lateral deformed structure trending variably from westerly to west-northwesterly. At its intersection with the Lornex Fault and the location of the Highland Valley Copper deposit, the trend is west-northwesterly (CIM Special Volume No.15 Figure 2).

As a result four structural intersections were identified; three are within the Border Phase of the Guichon Batholith and one at an interior contact between a sliver of Nicola volcanics and the Gump Lake Phase of the Guichon Batholith. The structural intersection locale with increased fractured zones and/or localized breccia would be a preferred conduit for the pressurized hydrothermal fluids to surface or be deposited within any well fractured area which may result in an economic zone of porphyritic mineralization as at the Lornex deposit where mineralization is controlled by the distribution and density of fracture sets. Thus, each of these intersections would be areas to explore for surficial indications of a hydrothermal generated mineral source at depth.

The Highland Valley Copper deposit is a prime example of a structurally controlled mineral deposit in the Guichon Batholith in this area with this world-class deposit located at the intersection of two major faults.

Interpretation and Conclusions *(cont'd)*

Surficial indications of other potential mineral deposits in the area are described in the eight Minfile mineral descriptions copied herein from the BC Government Minfile records with locations shown on Figure 4.

Excluding other variable geological conditions, structures are essential in the localization of potentially economic porphyry mineralization within the Guichon Batholith and/or related stocks.

The four structural intersections located on Tenure 585384 should be explored for any geological indicators which may be revealed as minerals and/or alteration and would be subject to interpretation as economic mineral indicators.

Respectfully submitted
Sookochoff Consultants Inc.

Laurence Sookochoff, PEng

SELECTED REFERENCES

Aho, A.E. - Report on Geologic, Magnetometer, and Geochemical Surveys on the Raha Mineral Claims for Torwest Resources Ltd. October 22, 1958. AR 241.

Baird, J.G. - Report on Induced Polarization Survey on some Ezra Claims for New Indian Mines Ltd. July 28, 1969 AR 1,976.

Garrow, T. – 2010 Diamond Drilling Assessment Report on the Dansey Project for Highland North Inc. January 20, 2012. AR 32,980.

Hemsworth, F.J. - Report on the Geochemical Survey of the Ezra Claims for New Indian Mines Ltd. December, 1964. AR 606.

Holcombe, R. – 2009: GEOrient, ver 9.4.4. Stereographic Projections and Rose Diagram Plots

MapPlace – Map Data downloads

Marshak, S., Mitra, G. – Basic Methods of Structural Geology. pp 258-259, 264*.Prentice-Hall Inc. 1988

MtOnline - MINFILE downloads.

092ISW012 – HIGHLAND VALLEY COPPER
092ISE012 – BERTHA – MOLLY
092ISE021 – RHYOLITE
092ISW045 – LORNEX
092ISE072 – FIDDLER
092ISE147 – JHC
092ISE167 – SA
092ISE170 – POM POM
092ISE190 – QUEN
092ISE254 – WENDY

Sookochoff, L., Zhonghua, P. – Dansey Project Technical Report for Logan Copper Inc. January 16, 2010.

STATEMENT OF COSTS

Work on Tenure 585384 was done from April 9, 2013 to April 13, 2013 to the value as follows:

Structural Analysis	
Laurence Sookochoff, P Eng. 3 days @ $ 1,000.00/day -----	$ 3,000.00
Maps ----------	600.00
Report ----------	3,500.00
	$ 7,100.00
	======

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with an address at 120 125A-1030 Denman Street, Vancouver, BC V6G 2M6.

I, Laurence Sookochoff, further certify that:

1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.

2) I have been practicing my profession for the past forty-seven years.

3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.

4) The information for this report is based on information as itemized in the Selected Reference section of this report and from work the author has performed in the Bertha Property area.

5) I have no interest in the Bertha 585384 Claim Group as described herein.

Laurence Sookochoff, P. Eng.