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Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geological Geophysical

TOTAL COST: $ 9,310.80

AUTHOR(S): Laurence Sookochoff, PEng **SIGNATURE(S):** Laurence Sookochoff

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): **YEAR OF WORK:** 2015

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5557837 June 15, 2015

PROPERTY NAME: Bertha

CLAIM NAME(S) (on which the work was done): 581015

COMMODITIES SOUGHT: Copper Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092ISE012 092ISE021 092ISE147 092ISE190

MINING DIVISION: Kamloops **NTS/BCGS:** 092I.046 092I.047

LATITUDE: 50 ° 27 ' 07 " **LONGITUDE:** 120 ° 22 ' 16 " **(at centre of work)**

OWNER(S):

1) Guy Delorme
2) Christopher Delorme

MAILING ADDRESS:

818-470 Granville Street
Vancouver BC V6C 1V5

340 Logan Lane
Merritt BC V1K 1P7

OPERATOR(S) [who paid for the work]:

1) Guy Delorme
2) Christopher Delorme

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PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Upper Triassic, Nicola Group, Western Volcanic Facies, Northerly and Northwesterly Structures, Cross-Structures, Shears,
Bertha Molly, Malachite, Azurite, Chalcopyrite, Cuprite, Epidote, Calcite, Silicification, Structural Control-North Trend

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 3764 14959 15060 17337 18048 28671

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation	514 hectares	581015	$ 6 000.00
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	3.0	581015	3,310.80
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	$ 9,310.80

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Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geological Geophysical **TOTAL COST:** $ 3,624.60

AUTHOR(S): Laurence Sookochoff, PEng **SIGNATURE(S):** Laurence Sookochoff

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): **YEAR OF WORK:** 2015

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5557838 June 15, 2015

PROPERTY NAME: Bertha

CLAIM NAME(S) (on which the work was done): 679143

COMMODITIES SOUGHT: Copper Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092ISE012 092ISE021 092ISE147 092ISE190

MINING DIVISION: Kamloops **NTS/BCGS:** 092I.046 092I.047

LATITUDE: 50 ° 24 ' 29 " **LONGITUDE:** 120 ° 44 ' 20 " **(at centre of work)**

OWNER(S):

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2) Christopher Delorme

MAILING ADDRESS:

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OPERATOR(S) [who paid for the work]:

1) Guy Delorme
2) Christopher Delorme

MAILING ADDRESS:

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Merritt BC V1K 1P7

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Upper Triassic, Nicola Group, Western Volcanic Facies, Rhyolite Showing, Shear Zone, Amygdaloidal Basalt, Chalcopyrite Azurite, Malachite, Sphalerite, Zinc, 0.377 per cent Copper, 0.218 per cent Zinc, JHC Showing, Northwest Structural Trend, Epidote, Chlorite, Carbonate, Chalcocite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 8397 14959 15060 17337 18048 28671

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	1.5	679143	$ 3,624,60
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	$ 3,624.60

GUY & CHRISTOPHER DELORME

(Owners & Operators)

ASSESSMENT REPORT

on

GEOLOGICAL & GEOPHYSICAL SURVEYS

(Events 5557837 & 5557838)

work done from

July 10, 2014 to June 15, 2015

on

Tenures 581015 & 679143

of the 11 claim

Bertha 581015 Claim Group

Kamloops Mining Divisions

BCGS Maps 092I.046 & 092I.047

Centre of Work
5,586,451N, 662,667E
(Tenure 581015)

5,591,900N 663,300E
(Tenure 679143)

Author & Consultant

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Submitted

February 2, 2016

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SUMMARY

The 11 claim, 3970 hectare Bertha 581015 Claim Group, located 215 kilometres northeast of Vancouver in the Highland Valley of south central British Columbia, is within 12 kilometres of the Highland Valley Copper mine; one of the largest copper mining and concentrating operations in the world.

The Highland Valley low-grade copper/molybdenum deposit lies within the Late Jurassic Guichon Creek batholith in Bethsaida phase porphyritic quartz monzonite and granodiorite. A cluster of nine major porphyry copper deposits lie within a 15 square kilometer zone in the center of the batholith. 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 most prominent structural features are the north trending, west dipping Lornex fault and the east trending Highland Valley fault. The mineral controls to the Highland Valley and the Lornex deposits were controlled by the reactivation of these two major faults which created associated variable structural gaps that were filled with hydrothermally developed mineral bearing fluids transported through the feeder zone.

The structural analysis on Tenure 581015 indicated two cross-structural locations that should be zones of increased fractural intensity and/or breccias which could be ideal conduits, or feeder zones, for mineralized hydrothermal fluids to surface and/or be deposited within any well fractured intervening area which may result in an economic zone of porphyritic mineralization such as at the Highland Valley mineral deposits.

The localized magnetometer survey over one of the cross-structures of Tenure 581015 revealed two west-northwesterly trending anomalous mag LO's which may indicate the west-northwesterly structural zone that was indicated in the structural analysis. The correlative mag LO's with the structures may be due to the dynamic and/or hydrothermal alteration of the intrinsic volcanic magnetic minerals.

The localized magnetometer survey within Tenure 679143, which included a cross-structure from a 2006 lineament analysis *(AR 28,671)*, revealed a general magnetic low (mag LO) with a configuration that correlates with the trend of the three structures that constitute the cross-structure *(Figure 16)*. An enclosed anomalous mag LO may indicate the cross-structural location with the maximum zone of structural deformation and/or brecciation possibly as a hydrothermally produced breccia pipe.

The northerly trending 50 metre wide sub-anomalous to anomalous mag HI at 663475E may indicate a mafic volcanic unit within the volcanic pile with geological qualities comparable to the Rhyolite mineral showing *(Minfile 092ISE012)* where porphyry mineralization is related to a basalt host.

Thus, the two correlative cross-structural/mag LO areas of Tenures 581015 and 679143 should be the favored prospective areas to search for surficial geological indicators of a concealed potential mineral resource. The 50 meter wide mag HI zone on Tenure 679143 should also be explored to determine any association to a porphyritic mineral zone.

INTRODUCTION

Between July 10, 2014 and December 10, 2015, a structural analysis and a localized magnetometer survey were completed on Tenure 581015 and a localized magnetometer survey on Tenure 679143 of the 11 claim Bertha 581015 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 Tenures 581015 and 679143 or other claims of the Bertha property and to determine the effectiveness of the magnetic results in locating a potential mineral resource.

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

Figure 1. **Location Map**

(from MapPlace)

PROPERTY LOCATION & DESCRIPTION

Location

The Bertha 581015 Claim Group is located within BCGS Maps 092I.046 & 092I.047 of the Kamloops Mining Division, 215 kilometres northeast of Vancouver, 41 kilometres north of Merritt, 35 kilometres southwest of Kamloops, and within 12 kilometres east of the world-class producing Highland Valley Copper (*Minfile 092ISW012)* mine.

Description

The Property is comprised of 11 contiguous claims covering an area of 3970.7848 hectares. Particulars are as follows:

***Property Location and Description** (cont'd)*

Table I. **Tenures of Bertha 581015 Claim Group**

Tenure Number	Type	Claim Name	Good Until	Area (ha)
514175	Mineral	QUEN	20160213	41.183
522351	Mineral	MIKE	20160213	370.452
581002	Mineral		20160213	432.0029
581005	Mineral		20160213	514.5084
581009	Mineral		20160213	514.6423
581011	Mineral		20160213	514.5161
581012	Mineral		20160213	514.7582
581015	Mineral		20160213	514.8414
581016	Mineral		20160213	514.6721
585384	Mineral		20160213	494.0089
596301	Mineral	PONYBOY NORTH	20160213	390.9753

Total Area: 4816.5606 ha

*Upon the approval of the assessment work filing for Event 5557837.

Tenure Number	Type	Claim Name	Good Until	Area (ha)
679143	Mineral		20170205	308.6294

Total Area: 308.6294 ha

*Upon the approval of the assessment work filing for Event 5557838.

ACCESSIBILITY, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access

From Logan Lake, the Bertha 581015 claim group can be accessed by traveling from Logan Lake east on Highway 97D for two kilometres to a junction thence south for five kilometres to the northern boundary of Tenure 581005 of the Bertha 581015 claim group. Access on the Property is provided by numerous secondary roads.

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 on Tenure 581015 is gentle with elevations ranging between 1,296m in the northwest corner to 1,576 in the mid northeast.

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 550 KV power line traverses the northern portion of the Bertha 581015 Claim Group.

HISTORY: PROPERTY AREA

The history on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Bertha 581015 Claim Group is reported as follows. The distance to the Minfile locations is relative to Tenure 581015 of the Bertha 581015 Claim Group.

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

The No. 1 zone was discovered in 1956 and subsequently developed by two adits.

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

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).

***History: Property Area** (cont'd)*

***Highland Valley Copper** producer (cont'd)*

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.

BX prospect (Porphyry Cu+/-Mo+-Au)
MINFILE 092INE042
Seven kilometres northwest

Previous to 1958, the showing was trenched by B.X. Mining Company. In 1958, the Bob, Star, B.X. and Cow groups of claims were optioned by Noranda Exploration Company Limited and work consisted of a ground electromagnetic survey and geological mapping. Some bulldozer trenching was done on the showing on the B.X. claims and 8 kilometres of road was constructed; the options were dropped at the end of the summer.

PLUG showing *(*Volcanogenic)
MINFILE 092ISE196
Four kilometres east

Plug occurrence is located on the southern side of Meadow Creek, approximately 13 kilometres southeast of the community of Logan Lake.

Between 1986 and 1988, Western Resources Technologies completed programs of geological mapping, prospecting, soil geochemical sampling and geophysical (VLF-EM and magnetometer) surveys. A grab sample of carbonate altered rock from the west- central zone along Meadow Creek assayed 7.5 grams per tonne gold and 67.5 grams per tonne silver (Assessment Report 18048). In 1992, G.F. Crooker completed a program of magnetometer and VLF-EM surveys on the JB claims.

In 1995, Goldcliff Resource acquired the property as the S 1 to 48 claims and between then and 2006 they completed programs of prospecting, geochemical sampling, geophysical surveys, trenching and drilling.

HISTORY: PROPERTY

The history of the mineral MINFILE reported occurrences, prospects, and past producers within the Bertha 581015 Claim Group is reported as follows

BERTHA - MOLLY past producer (Stockwork)
MINFILE 092ISE012
Within Tenure 522351

In 1942, George Campbell did some surface-stripping on a copper showing, about 457 metres west of an old shaft. Production from this occurrence, known as the Lost group, was 31 tonnes, yielding 218 grams of silver and 626 kilograms of copper.

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

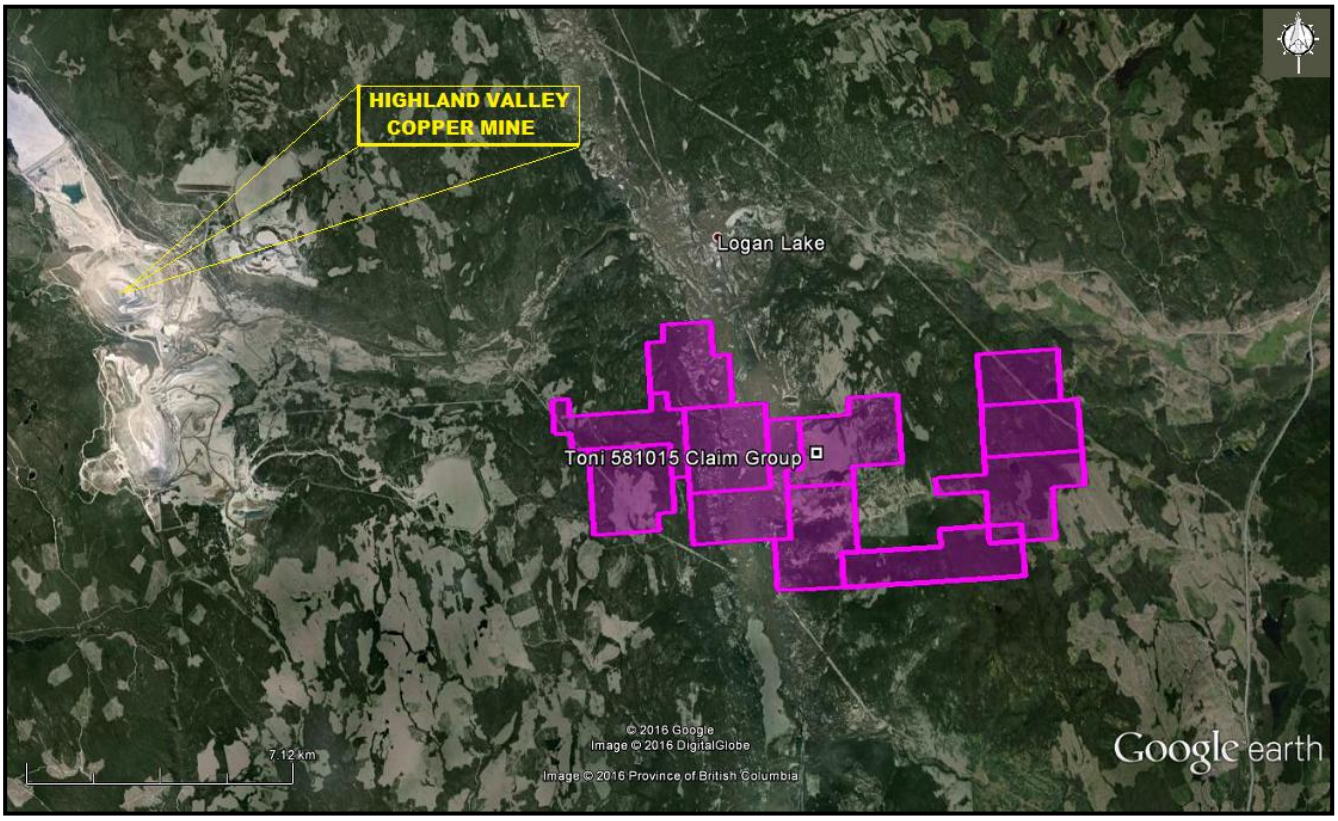
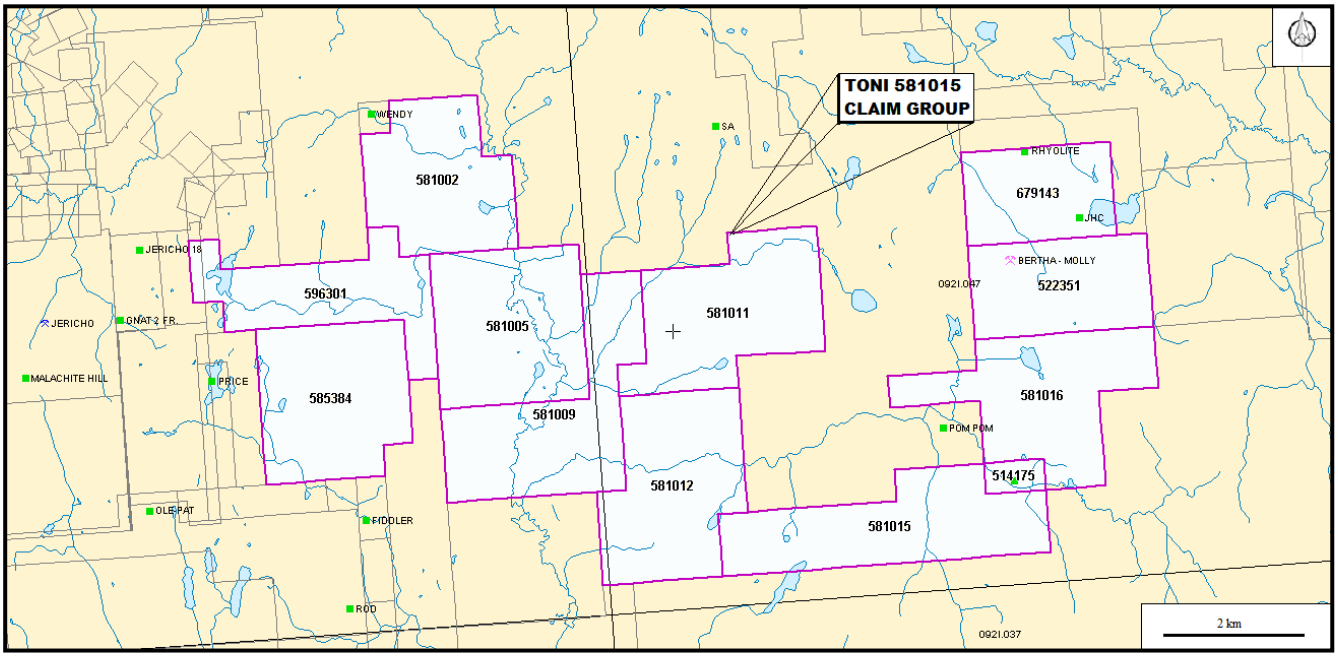


Figure 3. **Claim Map**
(from Google Earth)



History: Property *(cont'd)*

RHYOLITE showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE021
Within Tenure 679143

Trenches, 1.25 kilometres north-northwest of Homfray Lake, 8.5 kilometres south-southeast from Logan Lake (Assessment Report 18048).

QUEN showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE190
Within Tenure 514175

Showing located along the shore of a small, unnamed lake along Quenville Creek, about 11 kilometres south-southeast of the community of Logan Lake (Property File - Geology map).

GEOLOGY: REGIONAL

The Bertha 581015 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 Bertha 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.

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 581015 Claim Group is situated on the eastern contact of the Guichon Creek Batholith and the Nicola volcanics within 12 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.

Geology: Regional (cont'd)

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. These also form isolated outliers and local intrusive centers south of the Highland Valley

GEOLOGY: PROPERTY AREA

The geology of some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Bertha 581015 Claim Group is reported as follows. The distance to the Minfile locations is relative to Tenure 581015 of the Bertha 581015 Claim Group.

FORD past producer *(*Volcanogenic)
MINFILE 092ISE009
Three kilometres north

The Ford occurrence occupies the area north of Meadow Creek, which is underlain by dark grey to purplish red porphyritic amygdaloidal flows of the Upper Triassic Nicola Group. The lavas are typically amygdaloidal and vary in composition from olivine basalt to augite andesitic basalt. Alteration consists of albitization of plagioclase and propylitization of pyroxene to epidote, zoisite and calcite, with or without chlorite. The rock is locally shot through with sericite and epidote. Flows averaging 1.8 metres thick strike 050 degrees and dip 30 degrees northeast.

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

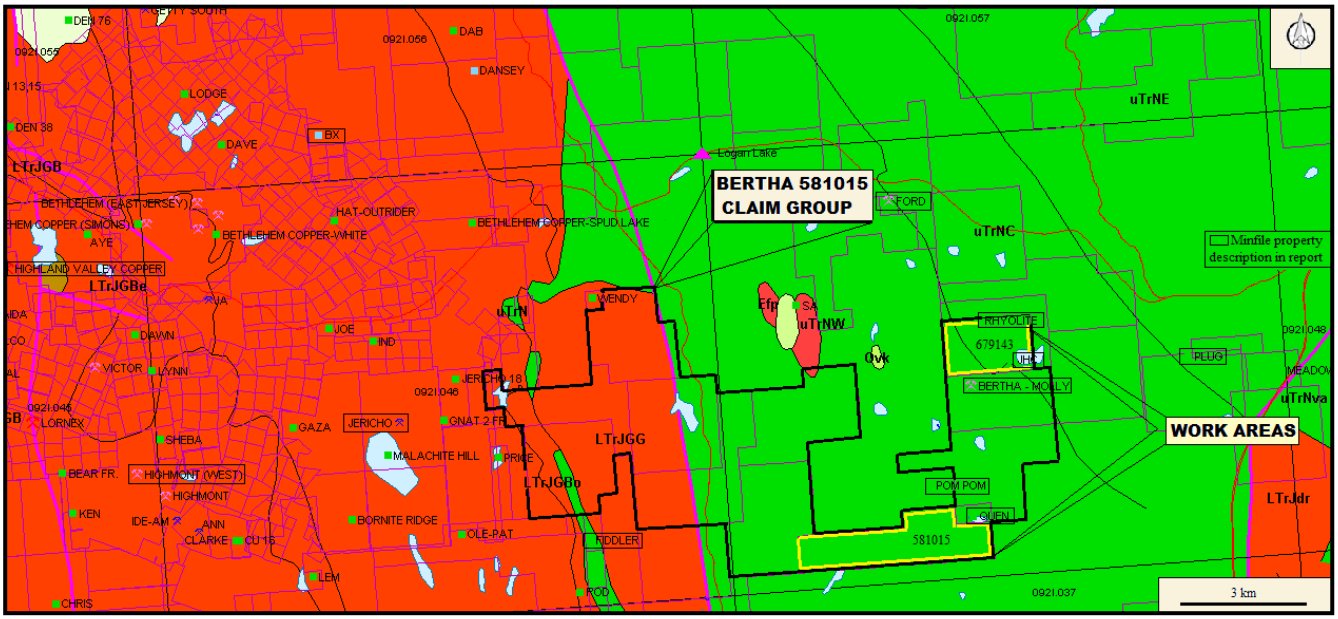
The upper adit, located on a low ridge, was driven 269.4 metres at a bearing of 084 degrees The Jericho adit zone is situated on the eastern flank of the Lower Jurassic Guichon Creek batholith. The property is underlain by Guichon variety rocks of the older Highland Valley phase of the batholith. These 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
Twelve kilometres west

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).

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

uTrNW
Western Volcanic Facies
undivided volcanic rocks

uTrNC
Central Volcanic Facies
undivided volcanic rocks

uTrNE
Eastern Volcanic Facies
basaltic 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: Property Area** (cont'd)*

***Highland Valley Copper** producer (cont'd)*

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. 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(?).

HIGHMONT (WEST) past producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW036
Nine kilometres west

The Highmont deposits are located in the central core of the Late Triassic to Early Jurassic Guichon Creek batholith and are hosted primarily by Skeena variety quartz diorite to granodiorite. Skeena rocks are intruded by the composite Gnawed Mountain porphyry dyke which trends west-northwest and dips vertically in the central portion of the property. This dyke consists of biotite-quartz- feldspar porphyry derived from the Bethsaida phase leucocratic quartz porphyry and breccia. Small, pre-mineral plagioclase-quartz porphyry and aplite dykes are scattered throughout the property. Tertiary lamprophyre and andesite porphyry dykes also occur. The property is cut by several north striking faults.

Geology: Property Area *(cont'd)*

Highmont (West) *past producer (cont'd)*

Potassic, phyllic, argillic and propylitic alteration on the property is weak compared to that at other deposits in the Highland Valley district. Argillic and propylitic alteration are entirely fracture-related, grading outward from a central vein or fracture through a zone of intense kaolinite alteration into chlorite-epidote-sericite-albite alteration and finally into unaltered rock. Alteration zones vary from several centimetres to 50 metres wide.

BX prospect (Porphyry Cu+/-Mo+-Au)
MINFILE 092INE042
Seven kilometres northwest

The BX showing area is underlain by quartz diorite (Guichon variety) of the Late Triassic-Middle Jurassic Guichon Creek batholith which in places are cut by finer dike rocks correlated with the Witches Brook phase of the batholith.

A long, north trending, altered shear zone has been exposed by trenching on the original BX claims. The shear zone is at least 762 metres long and 122 metres wide. The altered rock is chlorite rich and the shear zone is surrounded by partially brecciated, sheared, weathered or decomposed quartz diorite. Calcite veinlets, rich in iron, run through the area giving rise to considerable rust staining. Hematite, quartz and epidote veinlets (up to 7 centimetres wide) are also present.

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.

POM POM showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE170
200 metres west

The Pom Pom occurrence is underlain by grey-green and purple andesitic tuffs, flows and breccias of the Upper Triassic Nicola Group intruded by a microdiorite dyke. Chalcopyrite and bornite occur in the dyke as fracture controlled mineralization accompanied by epidote, calcite and hematite alteration mineralogy.

***Geology: Property Area** (cont'd)*

PLUG showing (Volcanogenic)
MINFILE 092ISE196
Five kilometres southwest

The area is underlain by volcanic rocks of the Upper Triassic Nicola Group that are cut by small granitic plugs and sills. Sparse outcroppings of Nicola Group rocks along Meadow Creek consist of altered andesite, lapilli tuff, amygdaloidal basalt and minor lenses of limy sediments that strike east to southeast and dip steeply to the north. Alteration minerals include chlorite, epidote, carbonate and hematite. A quartz-mariposite-carbonate rock outcrops along Meadow Creek and is in contact with a chlorite-mica-feldspar schist that strikes 20 degrees and dips 65 to 90 degrees to the east. The schist and mafic dioritic to hornblende andesite sills form a southeastward plunging asymmetrical syncline.

The quartz mariposite carbonate rock contains minor amounts of silver-bearing galena, sphalerite and chalcopyrite. An outcrop of highly pyritic quartz feldspar porphyry contains minor amounts of chalcopyrite.

GEOLOGY: PROPERTY

The Bertha 581015 is shown to be predominantly underlain by volcanics of the Nicola Group, not the preferred host to mineral deposits (except for the limestone units and fractured zones adjacent to mineralized porphyritic intrusives), smaller intrusives occurring as satellitic stocks of the Guichon Batholith outcrop on the Property which may be the primary mineral host. These stocks can be surface indicators of intrusive related mineralization at depth.

BERTHA - MOLLY past producer (Stockwork)
MINFILE 092ISE012
Within Tenure 522351

The Dupont Lake area is underlain mainly by Upper Triassic Nicola Group intermediate volcanics and derivatives. Approximately 8 kilometres to the west, Nicola Group rocks are in contact with the Lower Jurassic Guichon Creek batholith. Quartz diorite outcrops southwest of Dupont Lake.

The Bertha-Molly showing is hosted by purplish amygdaloidal andesites with intercalated reddish tuffs. These rocks are strongly fractured and chloritized. The original shaft was sunk at a point where patches of cuprite occur in fractures. Small shipments were made.

RHYOLITE showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE021
Within Tenure 679143

The area straddles a northwest trending contact between two volcanic sequences of the Upper Triassic Nicola Group. To the west are plagioclase, plagioclase-augite intermediate pyroclastic and epiclastic breccia, conglomerate, tuff, sandstone, local shale and augite porphyry bodies. The central portion to the east is underlain by aphanitic pillowed mafic flows. The contact between these two sequences hosts the Rhyolite occurrence.

The Rhyolite showing is underlain by grey, green or black amygdaloidal basalt of the Upper Triassic Nicola Group. Varicoloured calcite amygdules occur within an aphanitic groundmass. Several beds of maroon to green volcaniclastic breccia occur within the basalt and contain maroon, subrounded to subangular clasts ranging up to 30 by 15 centimetres. Two northwest trending, light grey-green, aphanitic, siliceous and pyritic felsic dykes, 3 to 4 metres wide, also occur.

***Geology: Property** (cont'd)*

JHC showing (Volcanic redbed Cu)
MINFILE 092ISE147
Within Tenure 679143

The property lies west of Homfray Lake and is underlain by volcanic rocks of the Upper Triassic Nicola Group. The area straddles a northwest trending contact between two volcanic sequences. East of the contact zone are very fine-grained red flows with occasional feldspar (plagioclase?) phenocrysts. The matrix contains moderate amounts of hematite disseminations. To the west are grey volcanics with an aphanitic to fine-grained matrix and associated feldspar and/or augite phenocrysts. Alteration consists of epidote, chlorite and carbonate. The contact zone parallels the main northwest structural trend. Northeast and north trends are also evident. Drilling (1971) intersected disseminated chalcocite in porphyritic and amygdaloidal basalt.

QUEN showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE190
Within Tenure 514175

The Quen occurrence is underlain by augite and plagioclase porphyritic andesitic flows and red volcanic conglomerate of the Upper Triassic Nicola Group. Chalcopyrite, bornite, pyrite, native copper, molybdenite, chalcocite, malachite and azurite occur in the andesitic flows.

MINERALIZATION: PROPERTY AREA

The mineralization on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Bertha 581015 Claim Group is reported as follows. The distance to the Minfile locations is relative to Tenure 581015 of the Bertha 581015 Claim Group.

FORD past producer *(*Volcanogenic)
MINFILE 092ISE009
Three kilometres north

The original open cuts (pre-1915) expose copper carbonate ore with occasional flecks of bornite and chalcocite along fracture planes in amygdaloidal flows. The adit follows a mineralized shear zone striking 040 degrees and intersects an east trending set of faults.

Chalcocite(?), bornite and some malachite occur in amygdules and associated veins in flow tops. Gangue minerals include chlorite, sericite, clinozoisite, zeolite and calcite. Some mineralization also occurs in calcite veins, calcite-epidote-sericite veins, sericite-zoisite veins and chlorite veins. Carbonate-zeolite veins are barren.

Drill core assays range from 0.22 to 2.8 per cent copper over an interval of less than one metre (Minister of Mines Annual Report 1973).

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

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. The principal sulphides are bornite associated with primary chalcocite, chalcopyrite and seams and disseminations of molybdenite. The vein walls are sheared and strongly altered.

Mineralization: Property Area *(cont'd)*

Jericho *developed prospect (cont'd)*

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
Twelve kilometres west

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).

HIGHMONT (WEST) past producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISW036
Nine kilometres west

The principal economic minerals are chalcopyrite, bornite and molybdenite occurring in veins and fractures. Chalcocite is present in minor amounts. Pyrite and specular hematite are gangue minerals. Minor chalcopyrite disseminations occur within a few centimetres of mineralized veins and shears. Veins of grey, brecciated quartz are up to 1 metre wide and are cut by seams of molybdenite and clay minerals. Mineralized clay gouge also occurs at the edges of veins. These zones consist mainly of quartz, albite, calcite and kaolinite and are usually accompanied by several metres of intensely argillized wallrock.

The West pit was mined first; East pit production began concurrently. See Highmont mine (092ISE013) for production statistics.

Reserves for the East Pit are reported as 800,000 tonnes of 0.15 per cent copper and 0.048 per cent molybdenum (CIM Special Volume 46, page 175).

BX prospect (Porphyry Cu+/-Mo+-Au)
MINFILE 092INE042
Seven kilometres northwest

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).

***Mineralization: Property Area** (cont'd)*

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.

POM POM showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE170
200 metres west

Copper mineralization grades 0.17 per cent copper (Assessment Report 18048).

PLUG showing (Volcanogenic)
MINFILE 092ISE196
Four kilometres east

The quartz mariposite carbonate rock contains minor amounts of silver-bearing galena, sphalerite and chalcopyrite. An outcrop of highly pyritic quartz feldspar porphyry contains minor amounts of chalcopyrite.

MINERALIZATION: PROPERTY

The mineralization on the mineral MINFILE reported occurrences, prospects, and past producers within the Bertha 581015 Claim Group is reported as follows

BERTHA - MOLLY past producer (Stockwork)
MINFILE 092ISE012
Within Tenure 522351

Recent development has exposed malachite, azurite, chalcopyrite, cuprite and pyrite hosted by shears and fracture-fillings in vesicular volcanics and red tuffs. Mineralization is structurally controlled with an apparent north trend. A common alteration is calcite and epidote with silicification becoming stronger at depth.

RHYOLITE showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE021
Within Tenure 679143

Mineralization occurs in amygdaloidal basalt near the flow-volcaniclastic contact and is related to narrow quartz-carbonate veinlets within shears.

***Mineralization: Property** (cont'd)*

***Rhyolite** showing (cont'd)*

Several old trenches indicate the shear zone strikes approximately 335 to 345 degrees and dips steeply west. Pyrite is present with minor chalcopyrite, azurite, malachite and sphalerite. Rock samples from this zone assayed up to 0.377 per cent copper, 0.218 per cent zinc and are weakly anomalous in gold and silver values.

JHC showing (Volcanic redbed Cu)
MINFILE 092ISE147
Within Tenure 679143

Drilling (1971) intersected disseminated chalcocite in porphyritic and amygdaloidal basalt. Fracturing and narrow shears in amygdaloidal andesite contain epidote, carbonate, quartz, malachite and chalcopyrite. A chip sample assayed 4.27 per cent copper and 14.2 grams per tonne silver (Assessment Report 17337).

QUEN showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE190
Within Tenure 514175

Chalcopyrite, bornite, pyrite, native copper, molybdenite, chalcocite, malachite and azurite occur in the andesitic flows.

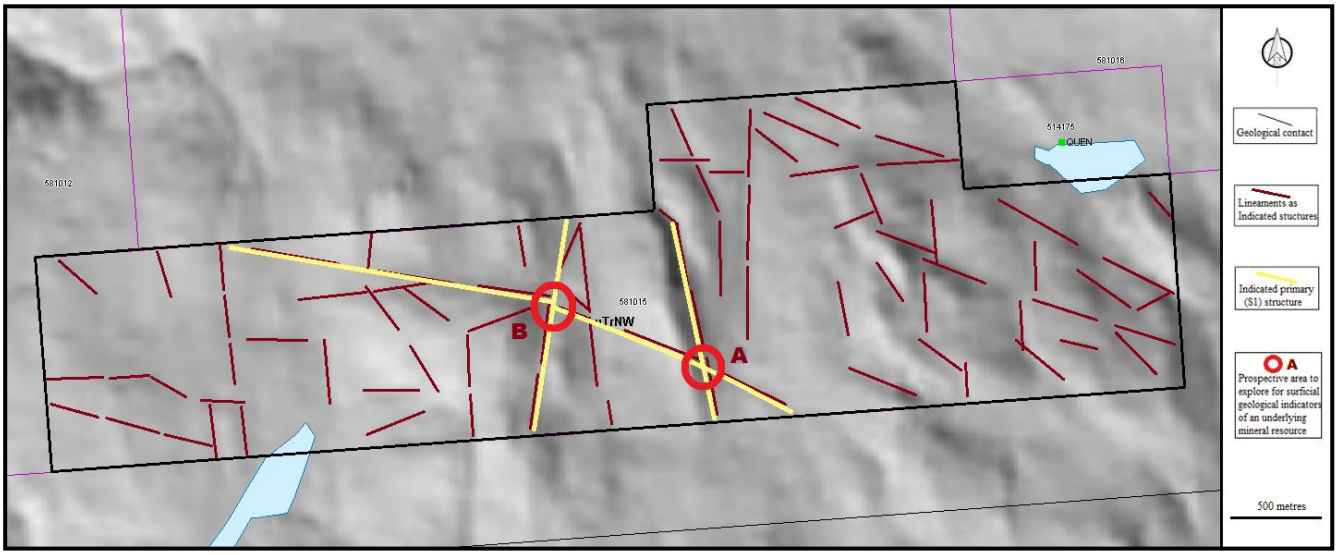
STRUCTURAL ANALYSIS

Tenure 581015

The structural analysis was performed on a DEM image hillshade map of Tenure 581015 by viewing of the map and marking the lineaments as indicated structures thereon. A total of 91 lineaments were marked (*Figure 5*), compiled into a 10 degree class interval, and plotted as a rose diagram as indicated on *Figure 6.*

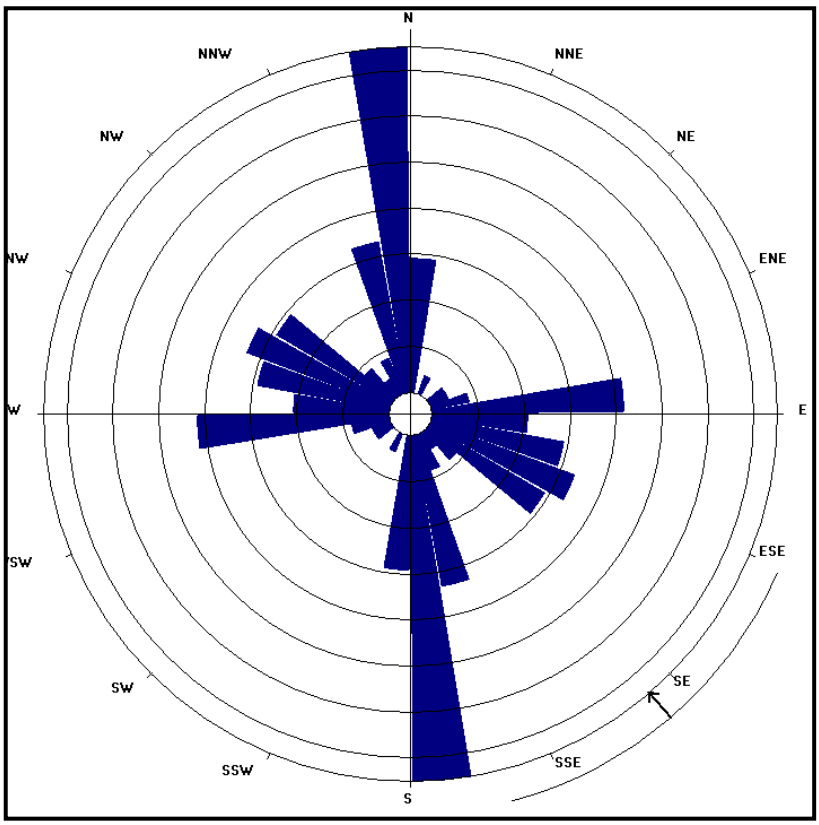
The centre of the work area on Tenure 581015 is at 5,586,451N, 660,667E (10) (NAD 83).

Figure 5. **Indicated Lineaments on Tenure 581015**



Structural Analysis *(cont'd)*
Tenure 581015

Figure 6. **Rose Diagram from lineaments of Tenure 581015**



STATISTICS

Axial (non-polar) data
No. of Data = 91
Sector angle = 8°
Scale: tick interval = 2% [1.8 data]
Maximum = 15.4% [14 data]
Mean Resultant dir'n = 137-317
[Approx. 95% Confidence interval = ±20.8°]
(valid only for unimodal data)

Mean Resultant dir'n = 136.9 - 316.9
Circ.Median = 137.0 - 317.0
Circ.Mean Dev.about median = 30.1°
Circ. Variance = 0.22
Circular Std.Dev. = 40.10°
Circ. Dispersion = 2.99
Circ.Std Error = 0.1814
Circ.Skewness = 0.24
Circ.Kurtosis = -11.22

kappa = 0.81
(von Mises concentration param. estimate)

Resultant length = 34.16
Mean Resultant length = 0.3754

'Mean' Moments: Cbar = 0.0248; Sbar = -0.3746
'Full' trig. sums: SumCos = 2.2583; Sbar = -34.0842
Mean resultant of doubled angles = 0.1561
Mean direction of doubled angles = 179

(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)*
Tenure 581015

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

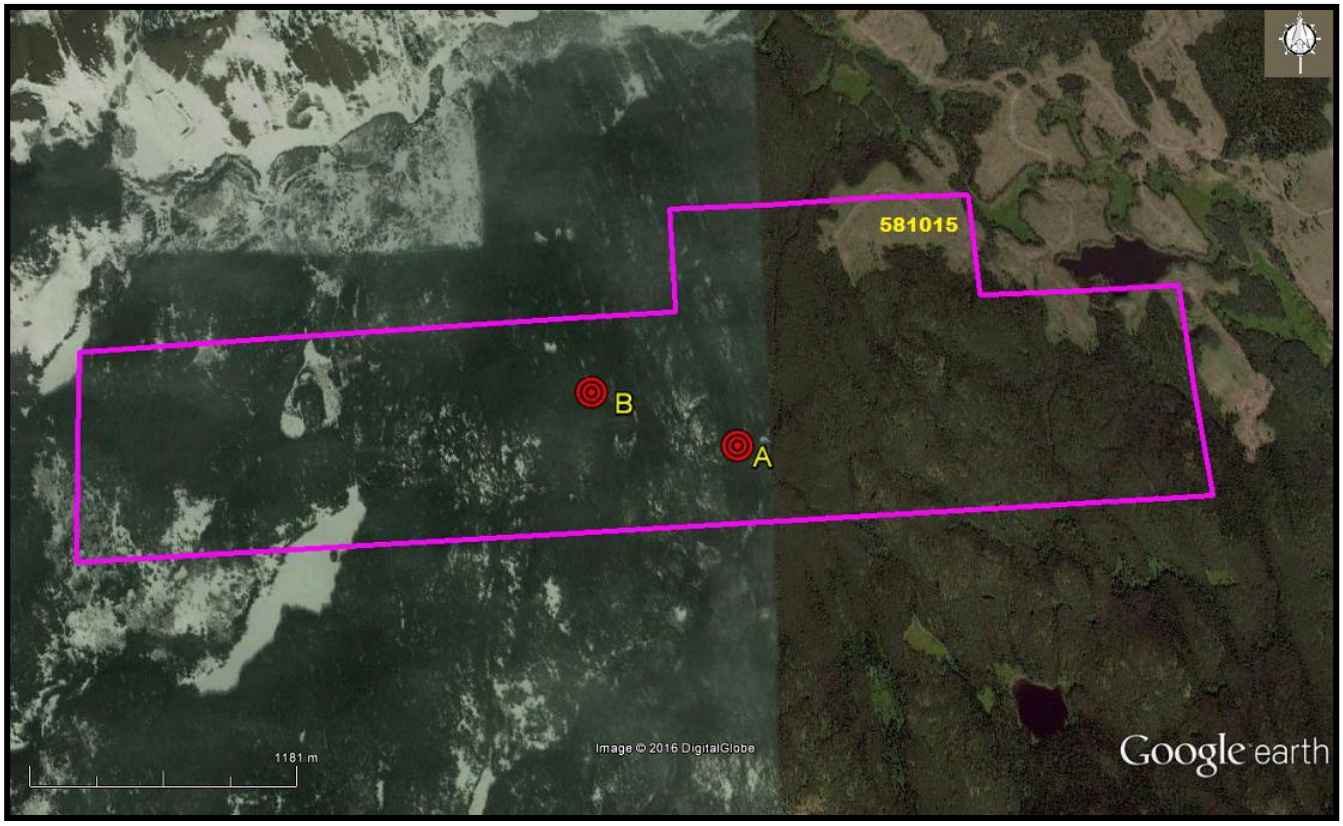


Table II. **Approximate UTM locations of cross-structures on Tenure 581015**
(UTM-NAD 83)

Location	UTM East	UTM North	Elevation
A	660,907	5,586,326	1,468
B	660,286	5,586,574	1,448

Magnetometer Survey

Event 5557837
Tenure 581015

a) Instrumentation

A Scintrex MF 2 Model magnetometer used for the magnetometer survey. Diurnal variation was corrected by taking repeated readings at a base point throughout the day. Magnetometer values are total intensity and relative.

b) Theory

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite; magnetic surveys are therefore used to detect the presence of these minerals in varying concentrations. Magnetics is also useful is a reconnaissance tool for mapping geologic lithology and structure since different rock types have different background amounts of magnetite and/or pyrrhotite.

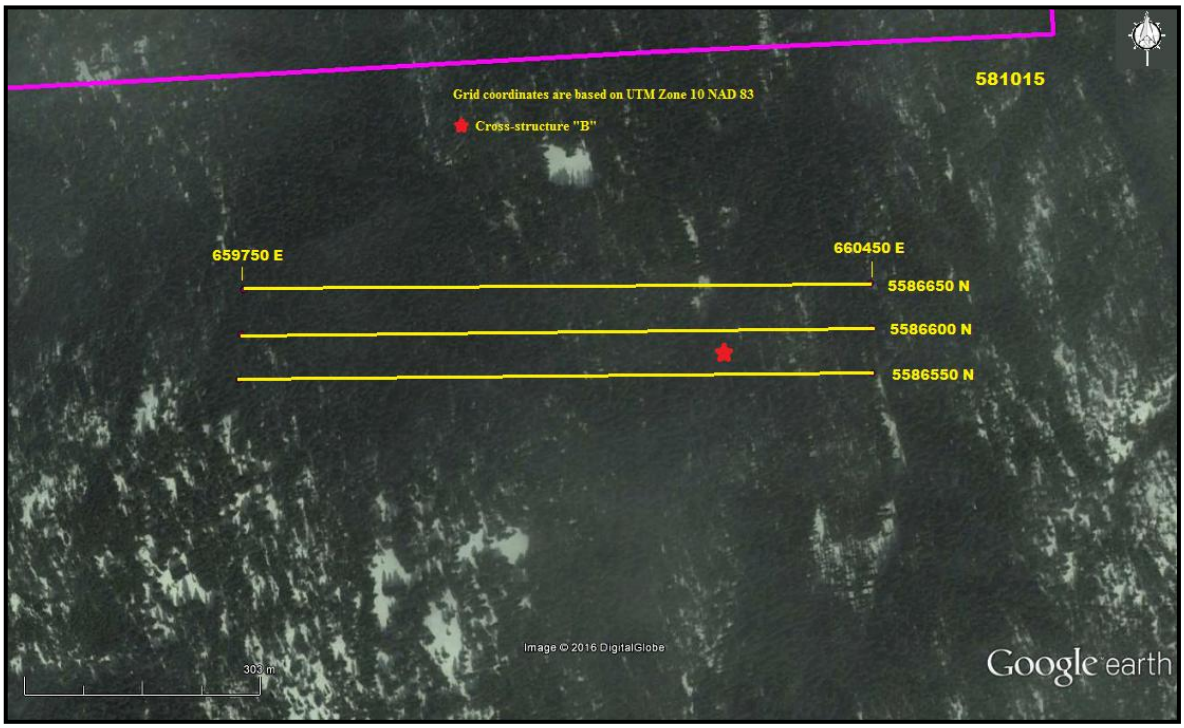
c) Survey Procedure

From station 5,586,650N 659,750E, a southerly base-line was established at 50 metre station intervals to 5,586,550N 659,750E. Magnetometer readings were taken at 25 metre intervals easterly along each of the three grid lines to 660450E. The grid line stations were located by a GPS instrument. Line kilometres of magnetometer survey completed was 3.0. The field data is reported herein in Appendix II.

d) Data Reduction

The field results were initially input to an Exel spreadsheet whereupon a Surfer 31 program was utilized to create maps from the data results..

Figure 8. **Magnetometer Grid Index Map: Tenure 581015**
(Base Map: Google Earth)



Magnetometer Survey *(cont'd)*

Tenure 581015 *(cont'd)*

Figure 9 .**Magnetometer Survey Grid & Raw Data: Tenure 581015**

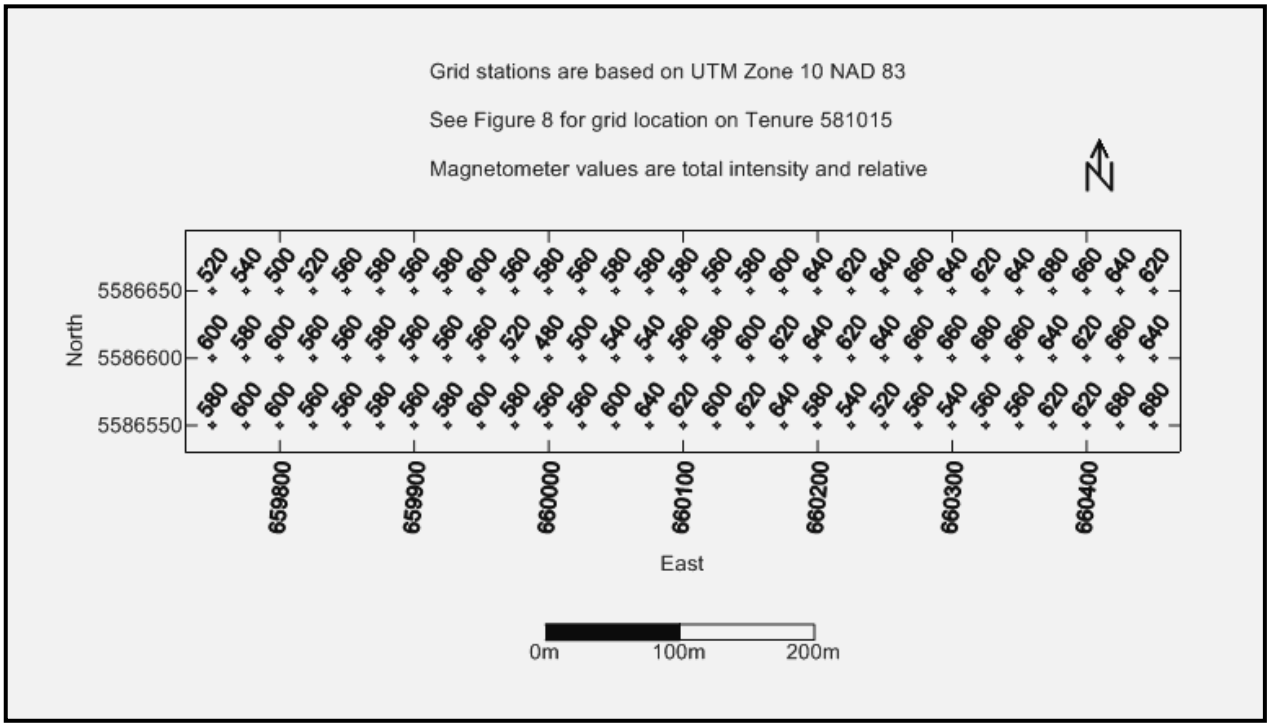
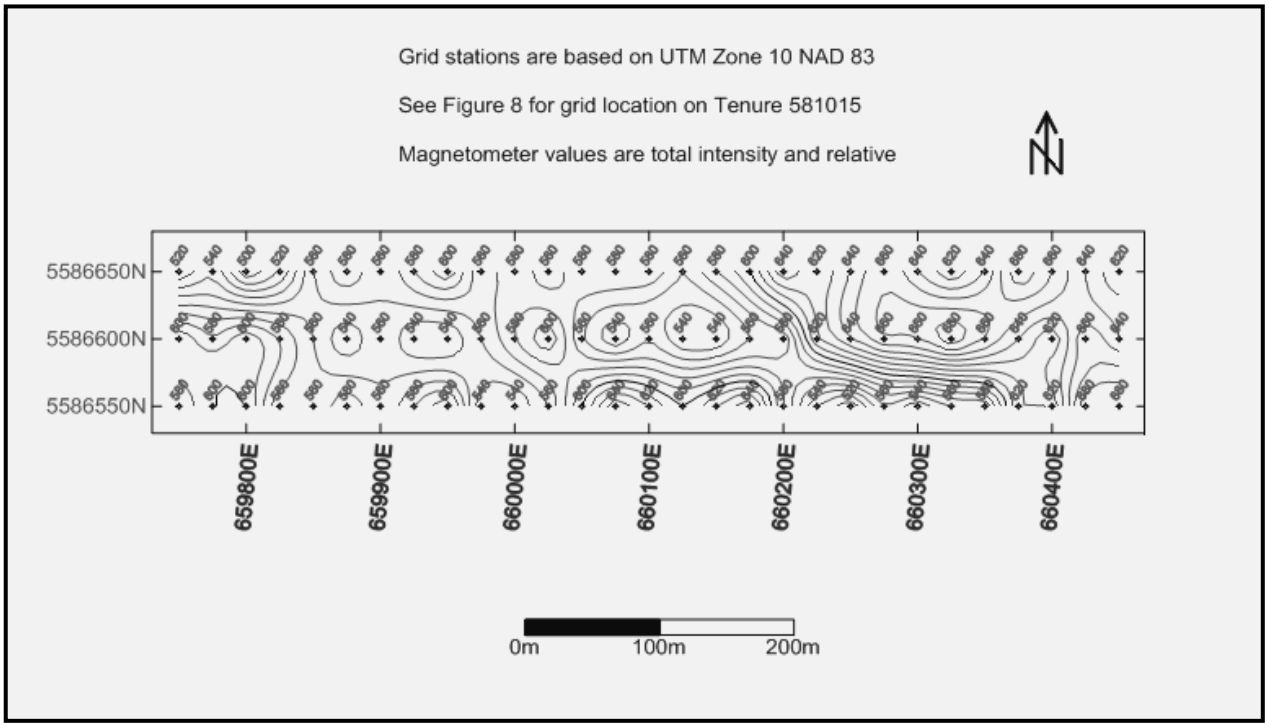


Figure 10. **Magnetometer Survey Contour Map: Tenure 581015**



Magnetometer Survey *(cont'd)*

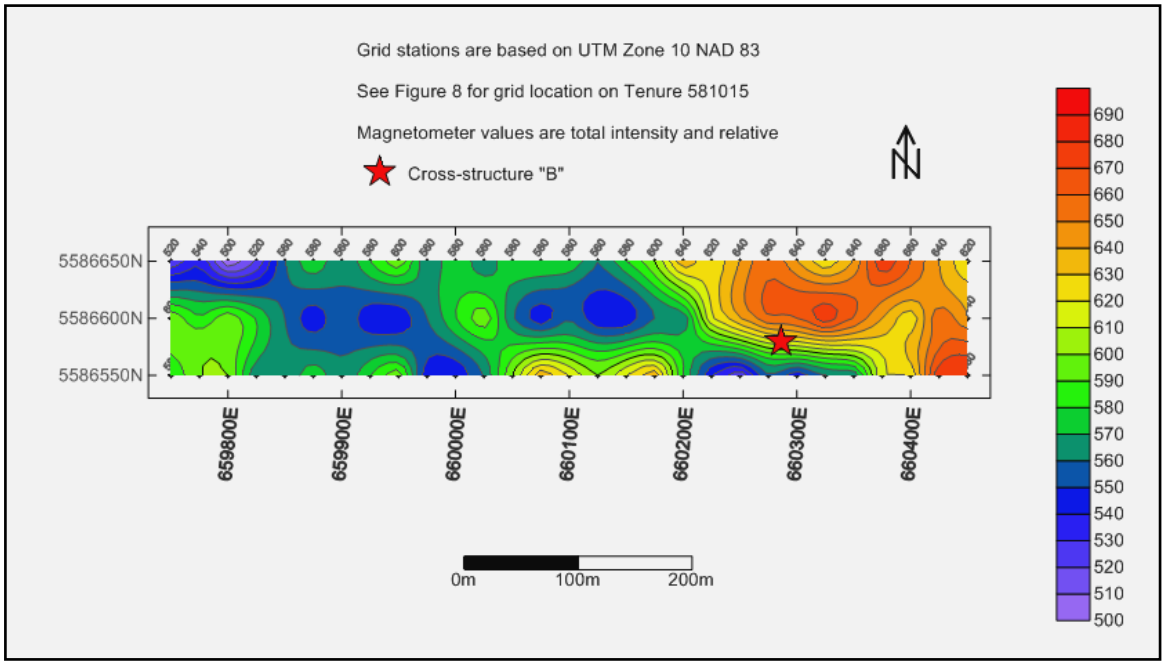
Tenure 581015 *(cont'd)*

e) Results

The localized magnetometer survey which covered cross-structure "B" revealed a background mag HI open ended to the west and two west-northwesterly trending anomalous mag LO's in the 600 metre surveyed portion to the east. The mid anomalous mag LO is open to the southeast and the western anomalous mag LO is open to the northwest and to the southeast. The two are partitioned by a background mag HI.

Cross-structure "B" is located within the transitional portion of the mag HI/mag LO anomalies.

Figure 11. **Magnetometer Survey Coloured Contour: Tenure 581015**



Magnetometer Survey

Event 5557838
Tenure 679143

a) Instrumentation

A Scintrex MF 2 Model magnetometer used for the magnetometer survey. Diurnal variation was corrected by taking repeated readings at a base point throughout the day. Magnetometer values are total intensity and relative.

b) Theory

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite; magnetic surveys are therefore used to detect the presence of these minerals in varying concentrations. Magnetics is also useful is a reconnaissance tool for mapping geologic lithology and structure since different rock types have different background amounts of magnetite and/or pyrrhotite.

Magnetometer Survey *(cont'd)*

Tenure 679143 *(cont'd)*

c) Survey Procedure

From station 5,591,950N 663,550E, a southerly base-line was established at 50 metre station intervals to 5,591,850N 663,550E. Magnetometer readings were taken at 25 metre intervals westerly along each of the three grid lines to 663,050E. The grid line stations were located by a GPS instrument. Line kilometres of magnetometer survey completed was 1.5. The field data is reported herein in Appendix I.

Figure 12. **Magnetometer Grid Index Map: Tenure 679143**

(Base Map: Google Earth)

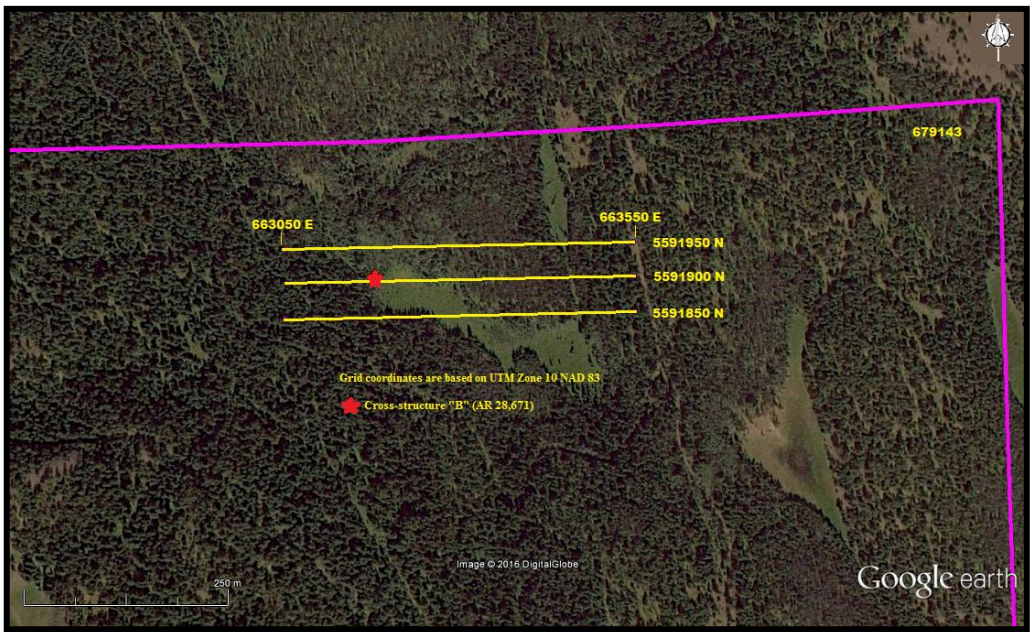


Figure 13 . **Magnetometer Survey Grid & Raw Data: Tenure 679143**

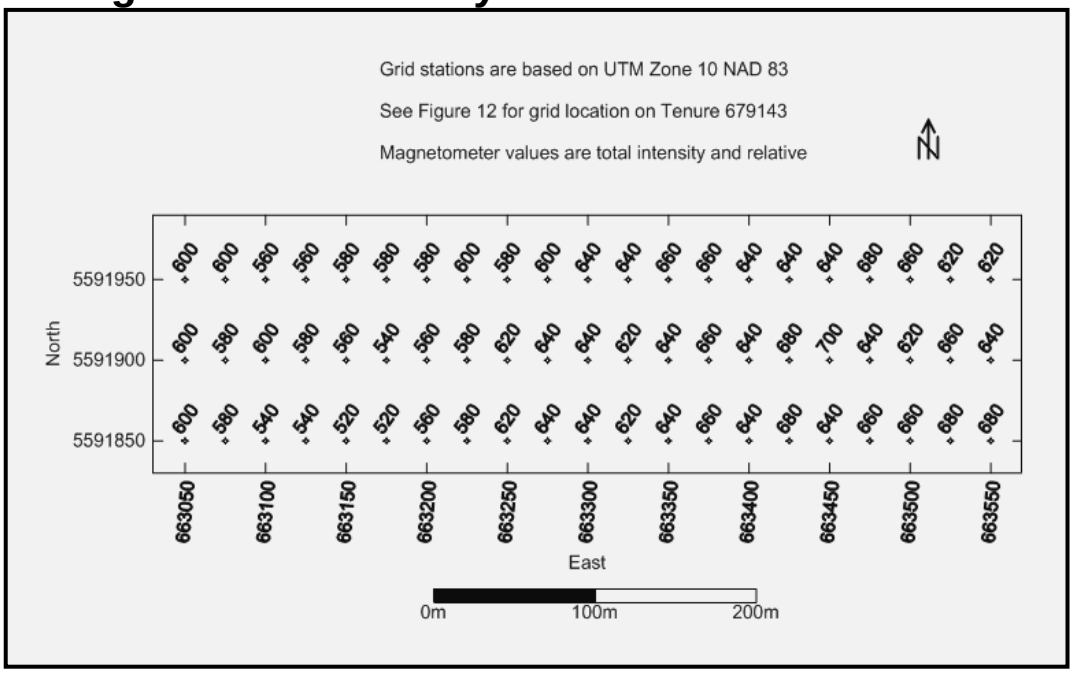


Figure 14. **Magnetometer Survey Contour Map: Tenure 679143**

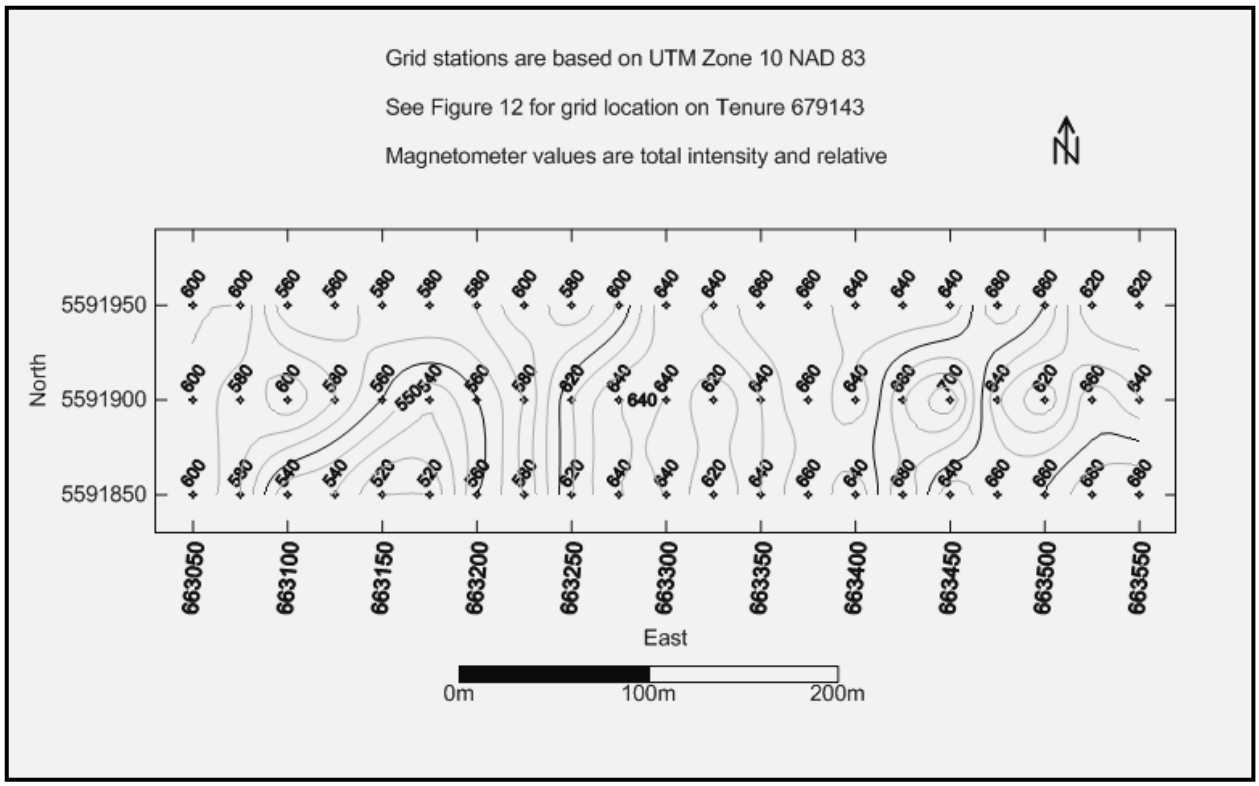
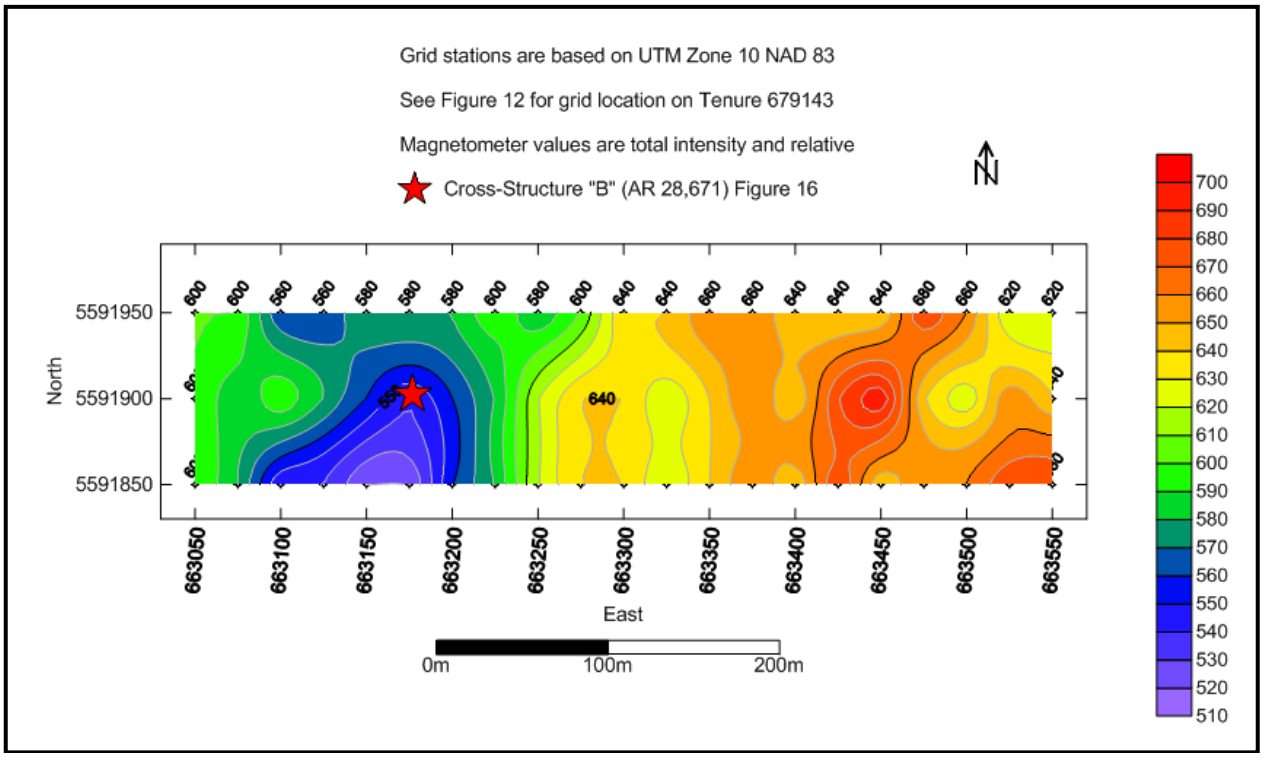


Figure 15. **Magnetometer Survey Coloured Contour Map Tenure 679143**



Magnetometer Survey *(cont'd)*

Tenure 679143 *(cont'd)*

d) Data Reduction

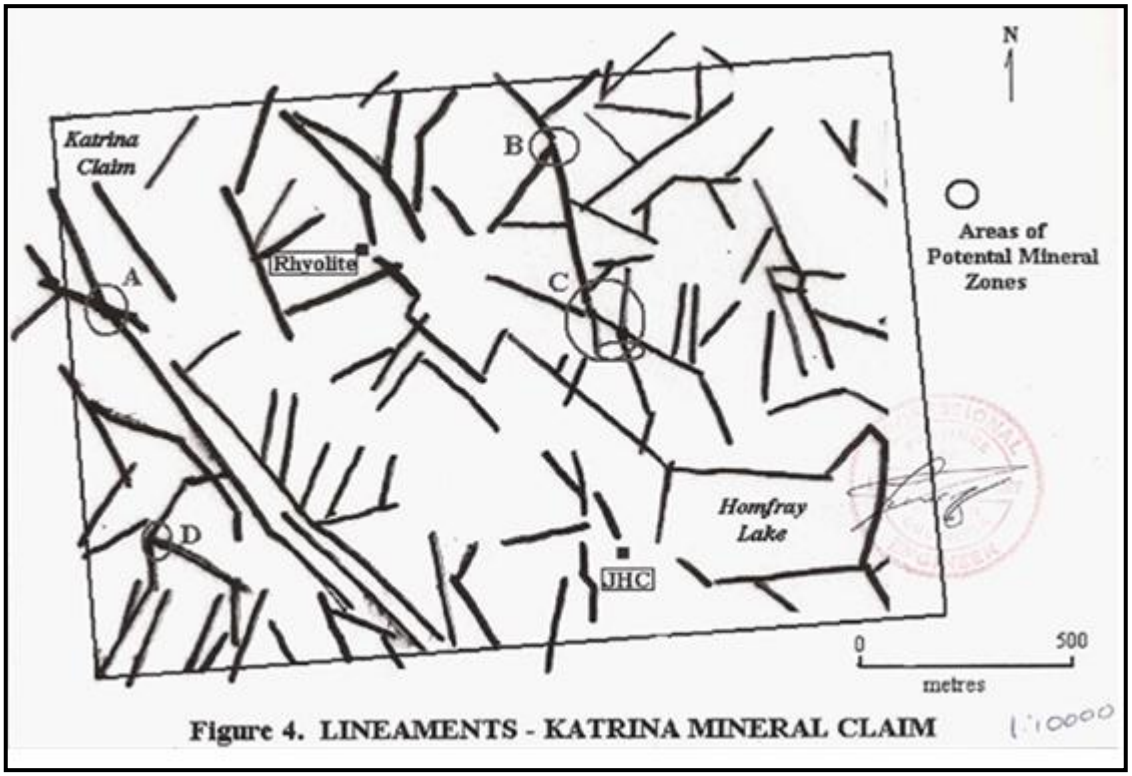
The field results were initially input to an Exel spreadsheet whereupon a Surfer 31 program was utilized to create maps from the data results.

e) Results *(Figure 15)*

In the western portion of the 100 metre by 500 metre localized magnetometer survey, a northerly trending, convex shaped, open ended, 150 metre wide, general magnetic low (mag LO) with a central, open to the south, anomalous mag LO area, was identified. The mag LO is bounded by an open-ended background magnetic high (mag HI) to the west and a 350 metre expanse of trending background to anomalous magnetic high's (mag HI) to the east.

Figure 16. **Indicated Lineaments on Tenure 522352* (*Present Tenure 679143)**

(Map from AR 28,671)



INTERPRETATION and CONCLUSIONS

The structural analysis of two claims of the Bertha 581015 Claim Group, one current and one former as a lineament analysis, was successful in indicating the approximate location of cross-structures which would be the prime prospective areas to explore for surficial geological indicators of potential underlying mineral resources. The cross-structural locations should be zones of increased fractural intensity and/or breccias which would be ideal conduits for possibly mineralized hydrothermal fluids to surface or be deposited within any well fractured intervening area which may result in an economic zone of porphyritic mineralization. The Highland Valley copper/molybdenum porphyry deposit *(Minfile 092ISW012)*, is a prime example of a structurally controlled mineral resource.

A localized magnetometer survey over one of the cross-structures of each claim confined the prospective area with encouraging results in each case to the location of a concealed potential mineral resource.

Tenure 581015

Two cross-structures, designated as "A", and "B" on Figures 5 and 7, were indicated between northerly and northwesterly trending structures.

The localized magnetometer survey which included cross-structure "B" *(Figure 11)* and which revealed a background mag HI open ended to the east and two west-northwesterly trending anomalous mag LO's in the 600 metre surveyed portion to the west may indicate the west-northwesterly structural zone that was indicated in the structural analysis *(Figure 5)*. The correlative mag LO's with the structures may be due to the dynamic and/or hydrothermal alteration of the intrinsic volcanic magnetic minerals.

Tenure 679143

The general magnetic low (mag LO) with a configuration that correlates with the trend of the three structures that constitute cross-structure "B" from a structural (lineament) analysis of former Tenure 522352, which is the current Tenure 679143 *(Figure 16),* may also be due to the dynamic and/or hydrothermal alteration of the intrinsic volcanic magnetic minerals.

The anomalous mag LO at 663150E, open to the south,. may indicate the cross-structural location with the maximum zone of structural deformation and/or brecciation possibly as a hydrothermally produced breccia pipe, where any geological signatures of depth related porphyritic mineralization may be etched at surface.

The northerly trending 50 metre wide sub-anomalous to anomalous mag HI at 663475E may indicate a mafic volcanic unit within the volcanic pile. This mafic volcanic unit may be comparable to the Rhyolite mineral showing *(Minfile 092ISE012)* where porphyry mineralization related to a basalt host is reported.

Thus, the two correlative cross-structural/mag LO areas of Tenures 581015 and 679143 should be the favored prospective areas to search for surficial geological indicators of a concealed potential mineral resource. The 50 meter wide mag HI zone on Tenure 679143 should also be explored to determine any association to a porphyritic mineral zone.

Respectfully submitted
Sookochoff Consultants Inc.

Laurence Sookochoff, PEng

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092ISE011 – JERICHO
092ISW012 – HIGHLAND VALLEY COPPER
092ISE012 – BERTHA – MOLLY
092ISE021 – RHYOLITE
092ISW036 – HIGHMONT (WEST)
092INE042 – BX
092INE072 – FIDDLER
092ISE147 – JHC
092ISE170 – POM POM
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STATEMENT OF COSTS

Work on Tenure 581015 was done from September 9, 2014 to June 15, 2015 to the value as follows:

Structural Analysis	
Laurence Sookochoff, P Eng. 3 days @ $ 1,000.00/day -----	$ 3,000.00
Magnetometer Survey	
Christopher Delorme & Guy Delorme	
Four man days @ $300.00 per day ----------	1,200.00
Truck rental, kilometre charge, fuel, room & board,	
mag rental ----------	1,360.80
	$ 5,560.80
Maps ----------	750.00
Report ----------	3,000.00
	$ 9,310.80
	======

Work on Tenure 679143 was done from July 10, 2014 to June 15, 2015 to the value as follows:

Magnetometer Survey	
Christopher Delorme & Guy Delorme	
Four man days @ $300.00 per day ----------	1,200.00
Truck rental, kilometre charge, fuel, room & board,	
mag rental ----------	1,124.60
Maps ----------	300.00
Report ----------	1,000.00
	$ 3,624.60
	======

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-nine 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 581015 Claim Group as described herein.

Laurence Sookochoff, P. Eng.

Appendix I

Magnetometer Data

Tenure 679143

			E5557838 T679143					
East	North	Mag	East	North	Mag	East	North	Mag
663550	5591950	620	663550	5591900	640	663550	5591850	680
663525	5591950	620	663525	5591900	660	663525	5591850	680
663500	5591950	660	663500	5591900	620	663500	5591850	660
663475	5591950	680	663475	5591900	640	663475	5591850	660
663450	5591950	640	663450	5591900	700	663450	5591850	640
663425	5591950	640	663425	5591900	680	663425	5591850	680
663400	5591950	640	663400	5591900	640	663400	5591850	640
663375	5591950	660	663375	5591900	660	663375	5591850	660
663350	5591950	660	663350	5591900	640	663350	5591850	640
663325	5591950	640	663325	5591900	620	663325	5591850	620
663300	5591950	640	663300	5591900	640	663300	5591850	640
663275	5591950	600	663275	5591900	640	663275	5591850	640
663250	5591950	580	663250	5591900	620	663250	5591850	620
663225	5591950	600	663225	5591900	580	663225	5591850	580
663200	5591950	580	663200	5591900	560	663200	5591850	560
663175	5591950	580	663175	5591900	540	663175	5591850	520
663150	5591950	580	663150	5591900	560	663150	5591850	520
663125	5591950	560	663125	5591900	580	663125	5591850	540
663100	5591950	560	663100	5591900	600	663100	5591850	540
663075	5591950	600	663075	5591900	580	663075	5591850	580
663050	5591950	600	663050	5591900	600	663050	5591850	600

Appendix II

Magnetometer Data

Tenure 581015

			E5557837 T581015					
East	North	Mag	East	North	Mag	East	North	Mag
660450	5586650	620	660450	5586600	640	660450	5586550	680
660425	5586650	640	660425	5586600	660	660425	5586550	680
660400	5586650	660	660400	5586600	620	660400	5586550	620
660375	5586650	680	660375	5586600	640	660375	5586550	620
660350	5586650	640	660350	5586600	660	660350	5586550	560
660325	5586650	620	660325	5586600	680	660325	5586550	560
660300	5586650	640	660300	5586600	660	660300	5586550	540
660275	5586650	660	660275	5586600	660	660275	5586550	560
660250	5586650	640	660250	5586600	640	660250	5586550	520
660225	5586650	620	660225	5586600	620	660225	5586550	540
660200	5586650	640	660200	5586600	640	660200	5586550	580
660175	5586650	600	660175	5586600	620	660175	5586550	640
660150	5586650	580	660150	5586600	600	660150	5586550	620
660125	5586650	560	660125	5586600	580	660125	5586550	600
660100	5586650	580	660100	5586600	560	660100	5586550	620
660075	5586650	580	660075	5586600	540	660075	5586550	640
660050	5586650	580	660050	5586600	540	660050	5586550	600
660025	5586650	560	660025	5586600	500	660025	5586550	560
660000	5586650	580	660000	5586600	480	660000	5586550	560
659975	5586650	560	659975	5586600	520	659975	5586550	580
659950	5586650	600	659950	5586600	560	659950	5586550	600
659925	5586650	580	659925	5586600	560	659925	5586550	580
659900	5586650	560	659900	5586600	560	659900	5586550	560
659875	5586650	580	659875	5586600	580	659875	5586550	580
659850	5586650	560	659850	5586600	560	659850	5586550	560
659825	5586650	520	659825	5586600	560	659825	5586550	560
659800	5586650	500	659800	5586600	600	659800	5586550	600
659775	5586650	540	659775	5586600	580	659775	5586550	600
659750	5586650	520	659750	5586600	600	659750	5586550	580